Designing An Accounting Information System Based On Microsoft Access And Internal Control At Pt Tri Wira Buana

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Abstract
PT Tri Wira Buana is a company engaged in the property and housing developer sector which is still doing manual recording, causing slow data processing and ineffective preparation of financial reports. Therefore, this community service activity aims to design an easy and user friendly and computerized accounting information system based on Microsoft Access. The methods used are interviews, observation, and documentation. The result of the service is a Microsoft Access system consisting of information namely customer, supplier, inventory, and transaction forms consisting of sales, purchase, payment, receipt, and disbursement forms. The reporting in the Microsoft Access system are financial reports in the forms consisting of ledgers, trial balance, income statement, changes in capital, financial position, sales, and purchases. This system already integrated with each other and can generate reports per period. The implementation of the system has been conducting well, helping the reporting and improve the quality of bookkeeping at PT Tri Wira Buana. This system can also use as a reference and adopted for similar industries.

Keywords: *Accounting Information System, Microsoft Access, Internal Control, System Design, Financial Report*

Introduction

Real estate industry is currently growing rapidly in line with the development of globalization in Indonesian accounting information system, especially in the field of technology and information. Therefore, global expansion must also be followed by the development and application of information and communication technology, which brings many changes not only to individuals, but also to the business world and participating governments are required to company to these technological advances (Riwajanti *et al*., 2022). With advances in technology, companies can allocate resources more effectively and efficiently. To achieve this, they need timely and accurate information flowing throughout the organization. During the decision-making process, accounting information plays a significant role in determining whether a decision will produce beneficial results or not. For this reason, an information system is needed that has been designed in an integrated manner based on the needs and conditions of the company to obtain accurate accounting information (Lawita, 2020). In general, financial reports are complex and detailed. The inability of the public to understand accounting has become a problem for some people. Therefore, the need for an accounting

information system that can be follow by all parties is very necessary. In this accounting information system, there needs to be a process of planning, controlling, and managing the business. accounting information system is a comprehensive system that collects and transforms primary data into financial information that can be used by decision makers (Fibriyani *et al*., 2022). In addition, compared to implementing an accounting information system manually, implementing an accounting information system has proven to be more efficient and accurate in terms of time efficiency and data accuracy (Lestari & Rosyidi, 2020). Neat and accurate financial reports can be generated by the accounting information system application. The accounting information system also has an internal control element that is responsible for overseeing all economic activities that occur within the organization. A company's internal control can function as a tool for effective control. An effective internal control system ensures that company leaders, in this case managers, can control company activities effectively and can also convince themselves that the data is accurate and dependable. Seeing the role of accounting information system in a company is important, therefore the author analyzes the existing accounting information system at company Tri Wira Buana. This company also has not implemented an accounting information system in its business processes and is still manually inputting data and transactions that occur. This causes a slow process of data processing and the preparation of financial reports where the data is not arranged because it is difficult to get information in a fast time. In addition, data processing and data retrieval and employee performance are less than optimal and slower, allowing errors to occur in this recording. On this basis the authors took the title for this community service activity, namely "Design of Accounting Information Systems and Internal Control at PT Tri Wira Buana" This activity is conducted with the aim of wanting to help companies to design an accounting information system that is easy and user friendly and integrate all the company's business processes into the system Microsoft Access This makes it easier and more effective for companies to record, input, process, and search data. In addition, the author also analyzes how internal control is implemented and what are the deficiencies of the system and internal control that is implemented. The result of this system and internal control can produce a financial report that is in accordance with the standards and can be used as information in decision making.

Methods

The data collection technique used in this study is primary data, namely data obtained directly through interviews, observation, and documentation. Observation is a research method that collects relevant data by direct observation in the field to answer certain research problems (Taufik & Hanifa, 2021). Observations made in this study were to directly observe business activities and the accounting recording cycle at company Tri Wira Buana. Then is the interview technique which involves direct communication between the interviewer and the source of information, or the person being interviewed to obtain the required information. The purpose of this interview is to find out all the things or problems that occur in connection with the recording of company financial transactions. In this study interviews were conducted with company Tri Wira Buana regarding company profiles, business flow, records of what was done, procedures that apply, internal controls and others.

The third uses documentation techniques, namely using documents in the form of proof of transactions owned by the company in the previous months as a

data source for designing this system. Source documents owned by the company are used to evaluate, design, and interpret system designs that are suitable for company records. This community service Activity was conducted at company Tri Wira Buana which is a property company in Duri-Riau with the Mutiara subsidy housing project, Mutiara Residence. This community service is conducted for 3 months, starting from 01 September 2022 to 31 December 2022.

Result and Discussion
Flowchart PT Tri Wira Buana

     The following is the sales business flow that occurs at PT Tri Wira Buana based on the results of interviews and on-site observations.
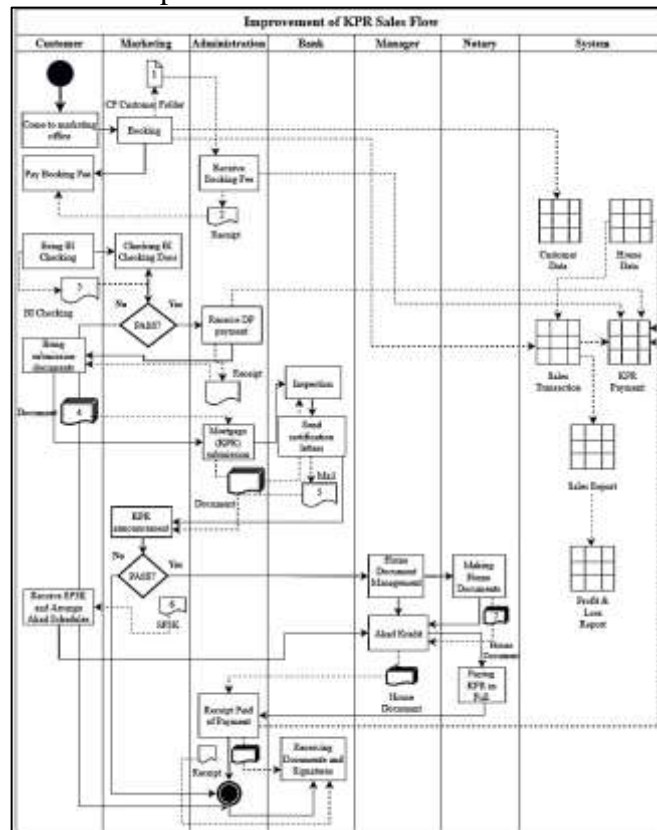
Picture 1.
Sales Flowchart
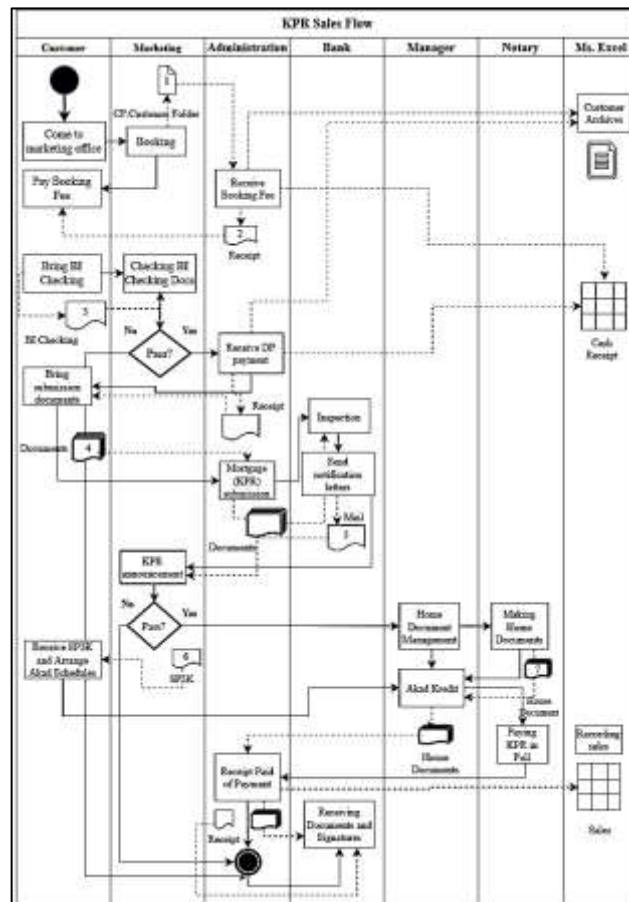
Source: Author (2022)

     From the sales flow above, the company only inputs manual transactions into excel and data archives customer and do not have adequate financial reports. Therefore, the proposal for an effective business flow is to use the system that has been designed in this activity.

Picture 2.
Improvement of Sales Flowchart

Source: Author (2022)

Sales flowchart Improvement in picture 2, namely the sales of KPR, it can be seen with the use of the system that will be implemented in sales transactions at the company. Previously the staff would only record customer data in the archive, now staff can directly input customer database into the data form customer which is complete with address, number, and others. Then when a sales occurs, it can be directly inputted into the sales transaction form which can be directly connected to the price data of the house itself. After the sale, when the bank will pay the rest of the KPR customer then you can directly input it in the KPR payment form which is already connected to the previous sales transaction form. Then after all sales transactions are completed in one period, you can immediately see sales reports that occurred during that period, and you can immediately see profit and loss reports that occurred using this system. With improvements from the previous manual recording, it will make it much easier for employees to input and display the desired data by directly clicking on the data they want to view.
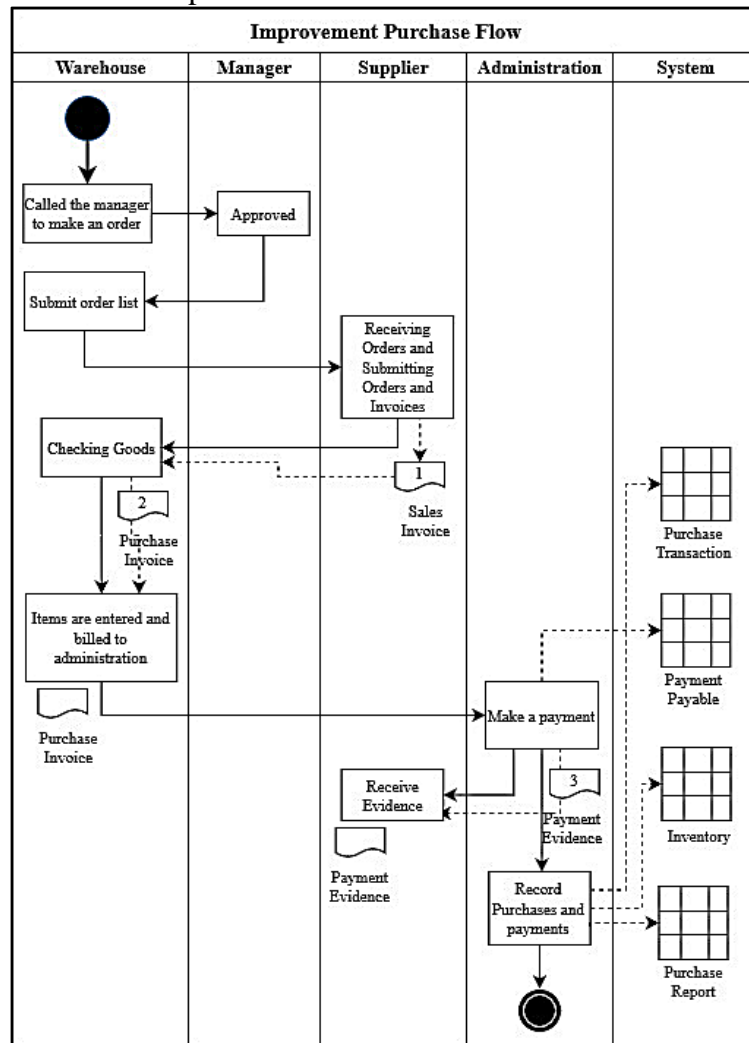
Picture 3.
Purchase Flowchart
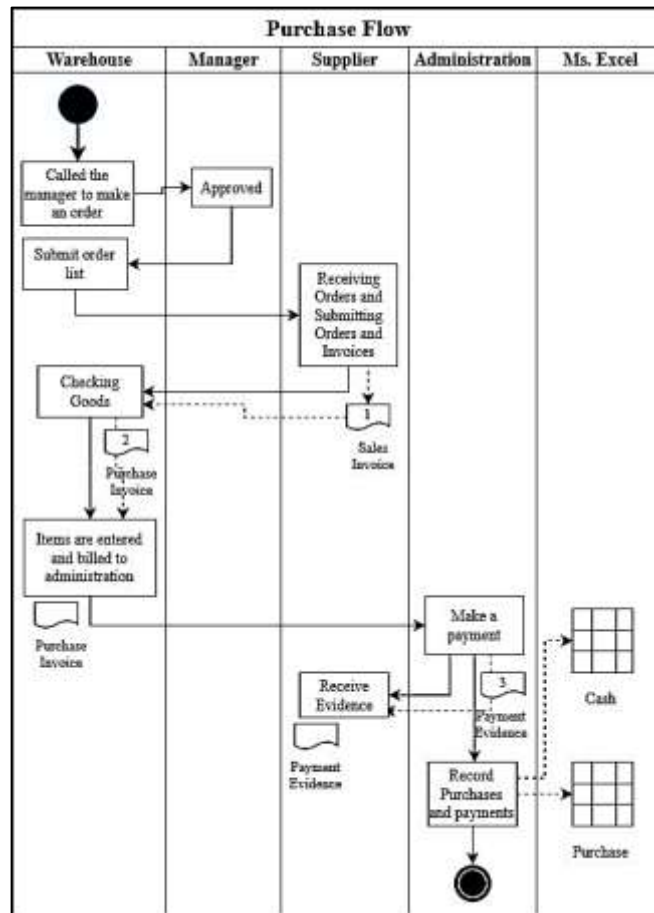
Source: Author (2022)

The purchase flowchart above can be seen when a purchase transaction occurs, the purchased inventory is received, the Warehouse staff must manually check whether the amount sent is in accordance with the amount purchased, then must write down and calculate the amount of inventory one by one and must input it manually into excel. So, the suggestion offered from the system is that the owner only needs to enter the amount purchased and there is no need to perform manual calculations on the amount of remaining inventory so that it will be easier to view purchase data that must be paid.

Picture 4.
Improvement of Purchase Flowchart

Source: Author (2022)

The proposed improvement of this system in picture 4 will make it easier for company staff to input manual purchase transactions to be more integrated with each other. This improvement can be seen with the existence of a system so that when incoming goods will be inputted into the purchase transaction form. And when you want to make a payment, you can go to the debt payment form that is connected to the previous purchase transaction so that it will make it easier to choose which payment to make. After that, this transaction will also be linked to an inventory form which can assist staff directly in selecting the items to be purchased and there is no need to manually input both names and prices in excel.

Internal Control
1.   Environment Control
        PT Tri Wira Buana upholds the values of integrity and ethical values. Within the company, each division has a close relationship between one division and another, in this case PT has established an organizational structure as well as each functional task, responsibility and authority. The company has a long-term plan to

build a new housing project in the Pekanbaru area within the next 5 years. The work culture in this company is more towards work culture team building where the relationship between superiors and subordinates is also not rigid and open to each other. Especially for sales marketing employees, the main target is to achieve sales levels. The sales level in question is that within 3 months you can sell at least 4-5 houses and if you can reach the target, even more than the target, you will get a sales bonus 2.5% of the selling price and multiples apply.

2. Risk Assessment

Risk measurement is the most important part in a company. To identify risks caused by a lack of accuracy on the part of employees and consumers involved in the sales process, such as the cancellation of the mortgage sales system from the Bank. To anticipate this happening, PT Tri Wira Buana is more selective in choosing potential customers. In addition, there is a risk of loss of transaction data if the transaction book and remaining inventory records are lost or damaged due to manual recording. Then it is important for companies to identify various threats, including financial threats, such as loss of financial resources, waste, or theft.

3. Control Activity

Employee procedures at PT Tri Wira Buana, namely for days and working hours are Monday - Sunday at 08.00-17.00. For employee leave, the company stipulates a maximum of 12 days annual leave in 1 year, and 5-7 days for pregnant or married employees. In addition, the separation of responsibilities for each division has also been implemented.

In the sales procedure at the company to avoid existing risks, when the sale is made, the separation of responsibilities and authorization for this transaction must be clear. And all documents must exist and are clear and must be kept as proof that this transaction clearly occurred on what date and customer data complete.

To record cash receipts when the consumer makes a receipt payment, the consumer is entitled to receive a receipt from the administration as proof of the transaction. After the contract process, the bank, the company, and customer will sign the documents directly supervised by the notary himself. Then the bank will pay all the rest of the mortgage to the company to the cash receipts department, and all this must be informed to the manager himself so that all processes are clear. After that, the process of granting land certificates is given after the company, bank and consumer have completed the credit agreement. All documents have been signed and legally owned customer alone.

In the purchasing procedure at PT Tri Wira Buana this will be done to a third party, namely supplier who are already partners with the company. To minimize the risks that may occur, when this transaction occurs the division of tasks is that the person in charge of ordering is the Warehouse section with the approval of the manager, checking all the completeness of the goods as well as the purchase invoice submitted to the administration for payment.

4. Monitoring

PT Tri Wira Buana assigns responsibility to each division so that everything is clear. At the end of each month the manager will ask the administration to check all sales that occurred that month and match them with evidence such as receipts etc. Every time there is a sales transaction, both marketing and administration employees must report to the manager and the manager will report to the company leadership.

5. Information And Communication

The information needed by management from sales activities at PT Tri Wira Buana is as follows: Total sales revenue by block type of house, Total cash receipts received from the sale of the house, full name and address of the buyer, proof of receipt, name of the salesperson who made the sale, the amount of incentives received by the salesperson. All the information obtained will be input into the company data in the company's Excel file and will become customer data for the company so that it will be easier for interested parties to view this information

Based on the results of a review of the company's internal control, there are some weaknesses:

- Separation of functions and duties in the organizational structure

The weakness in terms of the separation of functions in sales where when sales are successful cash is immediately received and recorded by the administration section. This allows for fraud to occur because starting from receiving bookings, Down payment, and settlements are managed by the administration section. It should be better if when the Down payment, is received and when the sale is successful, all cash will be the job of the accounting department, both in receiving and keeping records so that the process of receiving cash is clearer.

- Less efficient warehouse management

Warehouse management in this company is only given responsibility to one person, so warehouse management becomes less effective and efficient. There is no manufacture forecast inventory, checking is also not done regularly, the condition of the warehouse is also inadequate and cramped to load a lot of goods so it will be difficult when you want to take goods out of the warehouse. In addition, warehouse authorization is also not good, because sometimes the workers themselves take the inventory so that it can cause inventory loss, and there is also no CCTV in the warehouse so that this loss can occur. Therefore, the company can reorganize warehouse management to be even better because with better warehouse management it will avoid bad risks.

- The accounting information system does not play a role in the company

The company is currently conducting activities to record expenses and income, still uses manual input in Ms. Excel and there are some simple records that do not even comply with accounting standards. The consequences can happen human error due to incorrect input and recording and there is no integration between one system to another so it will take longer to process this data. By using this Accounting Information System, companies can collect all data on company business activities and store this data effectively and efficiently, integrate each other into all parts and manage information more quickly and effectively.

Accounting information system

After the process of interviewing and observing the company, the authors have understood the shortcomings of business operations in recording and reporting finances. Therefore, the author will use Microsoft Access to design a system so that the company and employees only need to enter transaction details and the system will automatically create adequate financial reports and supporting reports according to the desired period.

When you open the system for the first time, you will be greeted with a page LOGIN. This page is used as an additional security for companies to limit people

who can access the system by using username and password to add security features. If it is correct, then login successful and if wrong then a box will appear login fail.

Picture 5
Login View

Source: Author (2022)

1.   The main menu
        After successfully logging in, it will immediately display the main menu, this main menu is used by users to make it easier to open and input the desired data and transactions. From the main menu, by selecting the left go to Navigation Form The main data that contains the main data in this system.

Picture 6.
Main Menu

Source: Author (2022)

2.   Main Data
        From the main menu, by selecting the left go to navigation form main data. This main data contains a combination of form Chart of Account, Home Data, Mortgage (KPR) Prices, Customer, Supplier, and setup All form in the system is equipped with an operation button extra to save (save record), create new (new record), as well as delete (delete record) and there is a button next, back, and main menu which makes it easier for the user to use it.

Picture 7.
Account List (Main Data)
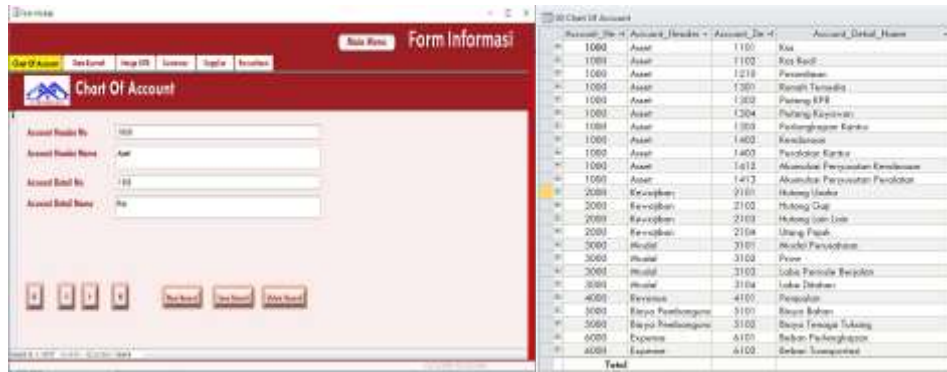
Source: Author (2022)

The display of Picture 7 form account list which it contains field Account Header No to input the account group head number whether included asset, liability, capital, production costs, expenses, other income, and other expenses. for Account Header Name this is to input the account class, Account Detail No this is to input the company account number which cannot be the same as other accounts with the prefix determined according to the group asset, liability, capital, or expenses. The Account Detail Name to fill in the account name that the user created. The user needs to adjust the account category so that the reports compiled are accurate based on the existing list of accounts.

Picture 8.
Data Rumah (Main Data)

Source: Author (2022)

Appearance forms the house data in Picture 8 is part of the main menu "Main Data" which is used as information for the user about the house to be sold.

Picture 9.
Mortgage (KPR) Prices (Main Data)

Source: Author (2022)

Picture 9 represents form KPR prices that are used to input data on mortgage prices for houses sold by the company. Inside the field type, DP, amount of DP, Booking Fee, plafond KPR, the KPR period, and the KPR installments.

Picture 10.

Customer Data (Main Data)

Source: Author (2022)

Picture 10 is a display of form Customer which is used to input customer data that makes this home purchase. This customer number can serve as a code for each customer and the code cannot be the same between one customer and another. This can be connected directly to the platform sales and sales details so that the customer number can be displayed directly on form that has been linked and made easier.

Picture 11.
Supplier (Main Data)

Source: Author (2022)

Picture 11 is a view form supplier or supplier of building materials to the company. As inform supplier this can be connected directly to the platform purchase dan purchase detail so No supplier can be displayed directly on form that has been linked and made easier.

Picture 12.
Inventory (Main Data)

Source: Author (2022)

Picture 12 is a display form inventory to input and display what the company supplies. Form this supply is made to be connected to form purchase detail to make it easier to choose the name of the building material you want to buy and there is no need to manually type or input the material and its price.

3.   Transaction Data

From the main menu, by selecting the left go to Navigation Form Transaction data that contains transaction data in this system. This transaction data

contains a combination of form chart sales, payment KPR, KPR rates, purchase, debt settlement and general journal.

Picture 13.

Transaction Data Display Sales

Source: Author (2022)

On the menu form sales, users can enter mortgage sales transactions in accordance with the available columns. To fill in the Customer No, you can immediately select it by clicking the triangle button because it has been checked link from form customer as well as the customer's name will be displayed automatically based on filling in the customer code.

Picture 14.

Purchase (Transaction Data)

Source: Author (2022)

On this form Purchase document is used to input purchase transactions for building materials. The supplier number just needs to be selected by clicking on the downward triangle because it is already connected with form supplier making it easier for users and automatically displays the supplier's name.

Picture 15.

Payment KPR (Transaction Data)

Source: Author (2022)

On this form payment KPR is used to fill in the receipt of mortgage payments made by the bank after the customer's credit agreement has been implemented.

Picture 16.

Debt Settlement (Transaction Data)

Source: Author (2022)

On this form debt settlement is used to input transactions when making purchases payments using the credit method and creating trade payables.

Picture 17.

General Journal (Transaction Data)

Source: Author (2022)

On form General Journal It contains the general transactions of cash receipts and disbursements. "Transaction No" can be filled in and cannot be the same as one another. The transaction date can be filled according to the date it occurred.

4.   Transaction Data Sub form

This sub form is a form that details the transactions that occur and becomes a part of the main form that is connected and makes it easier to input transactions.

Picture 18.

Sales Detail Sub Form

Source: Author (2022)

Sub form sales detail this helps display concurrently with form sales additional nominal sales that occur. The table for filling in the sales of this house is filled with a nominal amount booking fee and the amount of DP paid by the customer.

Picture 19.

Purchase Detail Sub Form

Source: Author (2022)

Purchase Detail Sub Form is used to make input in more detail the amount and quantity of inventory. "Inventory No." can be selected by clicking on the downward triangle because it is directly connected to Form preparations.

Picture 20.
General Journal Detail Sub Form

Source: Author (2022)

General Journal Detail sub form is used to input the account name from form Chart of Account according to the transactions that occurred, then for debits and credits, fill in the nominal issued, and the amount must be the same between debits and credits.

5. Report Menu (Report)

Picture 21.
Report Menu Display

Source: Author (2022)

The report menu is a collection of all reports generated from the company's operational transactions. This report is used by the company to see the condition of the company in terms of profit and loss, assets, liabilities, equity, and others. In the report menu, if you want to open a report, you can first enter the period you want to display in the date section.

Each report has a report header containing the company name and logo, report name, and the date of the reporting period according to the date entered in the column from and to the main menu.

Picture 22.

Display Parameter Value Report Date
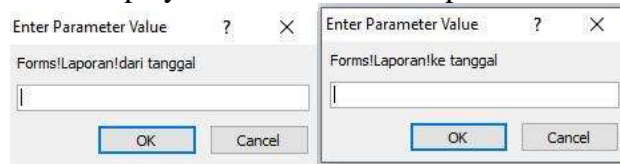
Picture 22 can appear when opening a report but not or forget to enter the date in the report menu. The column on the left is entered from what date you want to display the DD/MM/YYYY report. The column on the right is entered until the date of the report you want to display DD/MM/YYYY, then click Ok.

Picture 23.

Trial Balance Report

Trial Balance report is a report that contains information about the ending balance of each account in a period. At the very bottom of the trial balance report is the sum of the total closing account balances for the period.

Picture 24.

General Ledger Report Menu Display

Ledger (General Ledger) In the display of Picture 24, it contains all transactions that occurred during a certain period for each list of accounts in the company.

Picture 25.
Profit and Loss Report

Source: Author (2022)

Picture 25 is a profit and loss statement which is compiled to help companies see the conditions of their business operational activities whether they generate profits or losses. In addition, this income statement can also be compared between two or more periods to find out the progress of the company. At the end of the report presents the amount of net profit or loss generated during a certain period of the company.

Picture 26.
Report Menu Display Capital

Source: Author (2022)

Picture 26 displays a report on changes in capital which aims to see changes in the company's capital after deducting or adding the company's profit or loss and deducting the prive.

Picture 27.
Financial Position Report

Source: Author (2022)

The statement of financial position in picture 27 will display the assets, liabilities, and equity of the company. At the end of the two categories, the total balance of each account in the category during a certain period and the total balance of the asset account with the total liabilities and capital accounts must be the same or balance.

Picture 28.
Report Menu Display Sales

Source: Author (2022)

Picture 28 shows sales reports that have been show during the period that occurred. While at the bottom is the total of sales that occurred during that period.

Picture 29.
Menu Display Purchase Report

Source: Author (2022)

In the purchase report display, Picture 29 will display all purchases that occurred at the company during the period you want to see. While at the bottom is the total of purchases that occurred during that period.

After the process of implementing the system into the company was conducted, the condition of PT Tri Wira Buana underwent several changes:

- Recording transactions for sales, purchases, settlements, cash receipts, cash disbursements made easier and faster than previously done manually.
- Recording of company main data that was previously in the archive can also be entered into this system so that it will make it easier to view and choose customer name or supplier directly without typing one by one.
- Making financial reports is automatically made when transactions in that period are inputted. With this system, companies can easily view financial reports at any time, such as how much income, profits, assets, debts, costs and so on. This system also equipped with parameter value who can choose to display reports from what date-month-year to what.
- With this system, the internal control process is more focused. The flow of sales and purchases has been directly integrated with the system (improvement in picture 2 & 4), and control and monitoring activities have also started to be carried out by the company.

Conclusions

PT Tri Wira Buana is a company engaged in the property and housing developer sector with the core business process being selling houses. The current condition of the company in managing every business activity is still applying manual recording and not using an information system. Therefore, the authors designed an accounting system based on Microsoft Access that can record transactions and produce a company financial report.

This system has been designed according to company needs both from main data, transaction data input to the preparation of financial reports that meet standards. The conditions after the implementation process for the company are also getting better because there are several differences such as inputting transactions easier and faster, then recording the company's main data that has been conducted previously can also be entered into the system and can immediately produce a company's financial report. In addition, this system can also help optimize the implementation of internal control processes in the company

Based on the conclusions from the design of this information system, suggestions that can give to the company for future consideration are:
1. Microsoft Access System that has designed and made should continue to be implement in the future because with the implementation of this system, every business process recording will be more integrated than recording using manual

recording. As well as companies can also immediately see the required reports such as financial reports, sales reports etc.

2. Companies should be able to recruit employees who are specialized in accounting who are more experienced so that they can assist in a more accurate bookkeeping process.

3. Companies get more learn about reporting accounting standards so that they can assist in preparing financial reports in accordance with applicable SAK.

4. For weakness in Internal Control, companies must pay more attention to existing problems and quickly find solutions to these problems so that in the future nothing that is detrimental will happen.

During this community service activity conducted, the implementation of the system conducted well and can help in compiling reports more easily and improving the quality of bookkeeping at PT Tri Wira Buana. So that the design of this system can also use as a reference and can be adopt for similar industries and researchers who will conduct this activity in the future.

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