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Design of Alip Seafood Accounting System Based on Microsoft Access

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Abstract

Alip Seafood is an enterprise that engaged in the sale of fresh fish established in 1995. Since the establishment of the company, the company still uses traditional bookkeeping that records its financial transactions manually. The traditional bookkeeping is inefficient and ineffective in generating financial reports for the owner to make financial decisions. Thus, this study aims to provide an accounting system that can record transactions and generate financial statements automatically and accurately. The system designed for Alip Seafood is based on Microsoft Access. The data used in this research were collected through interviews, observation, and documentation. This system is capable of recording transactions and generating financial statements accurately. The system also allows the owner of Alip Seafood to view other information such as stocks in inventory, purchase report, sales report, lists of customers, lists of suppliers, and accounts payable report. This project is expected to help the owner understand its financial position and performance so that the owner can make the right financial decisions that can support its sustainability. The recommendation for future research is to provide more innovative and useful solutions to other enterprises.

Keywords: *Accounting System, Microsoft Access, Financial Report*

Introduction

Micro, Small, and Medium Enterprises (MSMEs) are important in boosting economic growth around the globe (OECD/ERIA, 2018). In Indonesia, MSMEs play a significant role in the Indonesian economy. The contribution of MSMEs to the Indonesian economy includes the ability to contribute 61.97% of the total GDP, the ability to absorb 97% of the total existing workforce, and the ability to collect up to 60.4% of the total investment (Ministry of Investment/BKPM, 2021b). The existence of MSMEs is very important in Indonesia. However, since the outbreak of Covid-19, MSMEs have faced the biggest challenge that threatened their survival caused by the implementation of Community Activity Restrictions (PPKM). The Indonesian government has made several efforts to minimize the impacts caused by the PPKM. Actions taken include opening access to the new capital, exempting import taxes, and simplifying the business licensing process (Ministry of Investment/BKPM, 2021a). Although the Indonesian government has made efforts

in supporting MSMEs, some other challenges can also threaten MSMEs' sustainability. The challenges include the increasing competition in the market, rapid changes in technology, and capacity constraints relating to knowledge, innovation, and creativity (Harvie, 2019). One of the problems that cause MSMEs to face the challenges is the lack of proper financial reporting. Most MSMEs do not have a proper bankable business plan and tend to utilize internal finance sources such as personal savings and internal profits. This limitation has greatly restricted their ability to grow and capitalize on trade opportunities (Harvie, 2019). The lack of proper financial reporting has caused MSMEs unable to generate financial statements. According to Gardi et al. (2021), financial statements play an integral role in the decision-making processes of entities. Therefore, having a proper financial reporting is the key to business success. Alip Seafood is one of the MSMEs that lacks proper financial reporting. Alip Seafood is located in Tanjungpinang City which engaged in the sale of seafood products, especially fresh fish. Alip Seafood was established in 1995 by Mr. Jang Dip. Since its establishment, Alip Seafood still uses traditional bookkeeping to record its financial transactions manually. The traditional bookkeeping has caused the owner unable to record transactions efficiently and effectively. The traditional bookkeeping often results in human errors such as inaccuracies and omissions in the recording. In addition, financial statements are also unable to be generated because of it. Without financial statements, the owner never knows the exact profit or loss and the financial position that will lead to the wrong decision making in the business. Therefore, this community service project aims to design an accounting system that can record transactions and generate financial statements automatically and accurately which can be used easily.

Methods

Primary data was the source of the data in carrying out this community service activity. Primary data is the data obtained directly from the main source (Sugiyono, 2016). The process of collecting data from this activity was carried out through direct interviews, observation, and documentation. An interview is a data collection technique by obtaining information verbally through questions directly to research subjects (Indriantoro & Supomo, 2018). Interviews were conducted with the owner of Alip Seafood to obtain information about the company's organizational structure, operating activities, and problems faced by the company as a basis for the accounting system designation. Observation is a data collection technique that is carried out by observing objects directly which are not limited to people but also other natural objects (Sugiyono, 2017). Observations were made directly at the company's location to obtain direct and real information regarding operational activities and to carry out the implementation phase. Documentation is a data collection technique used to obtain data and information in the form of books, archives, documents, written numbers, and pictures in the form of reports or information that can support research (Sugiyono, 2017). Documentation has also been carried out to obtain information that can also be used as the basis of the system design.

This activity was carried out in Tanjungpinang starting from 1st September 2022 to 31st December 2022 with a budget of five million Rupiahs. This activity was carried out through three stages which include the preparation stage, the implementation stage, and the reporting stage. The preparation stage was a step to ask permission from the owner of Alip Seafood to cooperate in this community service activity. After the preparation stage, the necessary information is collected and the author will begin the implementation stage by designing the accounting system using Microsoft Access. The accounting system will be designed according to the owner's requirements. The author will teach the owner how to use the system and the owner will use the system and provide feedback to the author. If the designed system is not optimal, then the author will improve the system until the system is optimal and according to the needs of the owner. After the system is optimal, reporting stage will be initiated. In the reporting stage, evaluation will be made by the owner and supervisor. The output of this activity which includes an accounting system, a guidebook, and a final report will also be made by the author in this stage.

Result and Discussion

An Accounting system is the output of this community service project. The accounting system is designed based on Microsoft Access. The system allows the owner to input transactions and generate reports easily so it can help in decision-making. The following is the result of the accounting system designed for Alip Seafood.

Picture 1.
Main Menu



Source: Processed Data, 2022

The main menu will be displayed as soon as the system is run. The main menu allows users to access the forms and reports easily. Users can access the list of forms in the form section. In addition, users can also display a list of company reports in the report section.

Picture 2.
Form List



Source: Processed Data, 2022

Form list is used to display the form to be inputted. The form list consists of chart of accounts form, inventory form, customer form, supplier form, purchases form, sales form, purchase payments form, and general journal form. Forms are used to input transactions as needed.

Picture 3.
Report List



Source: Processed Data, 2022

Report list is used to display the desired report according to the selected period. In the report list section, there is a selection date so that the owner can use it more easily and accurately to display financial report data according to the desired period. The list of reports consists of journal report, accounts payable report, general ledger report, statement of profit or loss, statement of changes in equity, statement of financial position, trial balance, sales report, purchase report, and stock report.

Picture 4.
Chart of Accounts



Source: Processed Data, 2022

Chart of accounts form is a form used to input accounts used by companies to record transactions. The list of accounts consists of account header number, account type number, account number, and account name.

Picture 5.
Inventory Form



Source: Processed Data, 2022

Inventory form is used to enter the information of products for sale. The inventory form consists of product code, product name, supplier code, supplier name, selling price, and purchase price.

Picture 6.
Customer Form



Source: Processed Data, 2022

Customer form is used to record information about customers. This form consists of a customer code and customer name. Customer forms can be used to help users know their customer information.

Picture 7.
Supplier Form



Source: Processed Data, 2022

Supplier form is used to record information about suppliers. This form consists of supplier code, supplier name, supplier address, and supplier phone number. Supplier forms can be used to store suppliers' information which makes it users easier to contact their suppliers.

Picture 8.
Purchase Form



Source: Processed Data, 2022

Purchase form can be used to input purchase data. This form consists of purchase number, purchase date, description, supplier name, product code, product name, number of units purchased, unit measurement, unit price, and total price.

Picture 9.
Sales Form

Source: Processed Data, 2022

Sales form is used to input sales data. This form consists of sales number, date of sale, customer code, description, product code, product name, units sold, unit measurement, selling price, unit price, and total price.

Picture 10.

Purchase Payment Form

Source: Processed Data, 2022

Purchase payment form is the form used when paying debts from purchases. This form consists of a purchase payment number, purchase payment date, payment reference number, description, and balance.

Picture 11.

General Journal Form

Source: Processed Data, 2022

General journal form is used to record general transactions in companies such as payment of water costs, payment of salaries, purchase of equipment, and others that cannot be recorded in the purchase form, sales form, and purchase payment

form. This form consists of a transaction number, transaction date, description, account number, account name, debit, and credit.

Picture 12.
Journals Report

Transaction Number	Date	Description	Debit	Credit	Balance
00000001	2022-01-01	Saldo Awal		100000000	100000000
00000002	2022-01-05	Pembelian bahan baku	50000000		50000000
00000003	2022-01-10	Penjualan barang		200000000	200000000
00000004	2022-01-15	Pembayaran utang	100000000		100000000
00000005	2022-01-20	Penerimaan kas		150000000	150000000

Source: Processed Data, 2022

The journal report is a report that displays all transactions from the company. Recorded transactions consist of general transactions, sales, purchases, and payments for purchases. This report consists of transaction date, transaction number, description, account number, debit balance, and credit balance. Journal reports are the basis for making a company's financial report ledgers.

Picture 13.
Accounts Payable Report

Supplier Code	Supplier Name	Purchase Number	Total Payable	Total Payment	Remaining Payable
001	PT. ABC	001	50000000	50000000	0
002	PT. DEF	002	100000000	80000000	20000000
003	PT. GHI	003	150000000	150000000	0
004	PT. JKL	004	200000000	100000000	100000000

Source: Processed Data, 2022

Accounts payable report is a report that displays the amount of the company's debt. This report can be used to find out the remaining outstanding debts by the company. This report consists of payment date, supplier code, supplier name, purchase number, total payable, total payment, and remaining payable.

Picture 14.
General Ledger Report

Transaction Number	Date	Description	Debit	Credit	Balance
00000001	2022-01-01	Saldo Awal		100000000	100000000
00000002	2022-01-05	Pembelian bahan baku	50000000		50000000
00000003	2022-01-10	Penjualan barang		200000000	200000000
00000004	2022-01-15	Pembayaran utang	100000000		100000000
00000005	2022-01-20	Penerimaan kas		150000000	150000000

Source: Processed Data, 2022

The general ledger report is used to display all transactions that occurred during the specified period according to the account number. This report consists of transaction date, transaction number, description, debit balance, credit balance, and total balance.

Picture 15.
Statement of Profit and Loss

Laporan Laba Rugi		Per Tanggal 30/11/2022
Modal Awal		
Modal Awal		Rp84,677,000
Labas		Rp15,000,000
Sisa Laba Rugi		Rp49,790,000
Modal Akhir		
Modal Akhir		Rp139,467,000

Source: Processed Data, 2022

Statement of profit and loss is a report that can be used to analyse the success of operational activities during a specified period. The statement of profit and loss can help its users to evaluate the company's past performance and predict the company's performance in the future. This report can also help users measure company risk (Kieso et al., 2018). The income statement consists of income and expenses.

Picture 16.
Statement of Changes in Equity

Laporan Perubahan Modal		Per Tanggal 30/11/2022
Modal Awal		
Modal Awal		Rp84,677,000
Labas		Rp15,000,000
Sisa Laba Rugi		Rp49,790,000
Modal Akhir		
Modal Akhir		Rp139,467,000

Source: Processed Data, 2022

Statement of changes in equity is a report that displays changes in equity from time to time. This report presents each component of equity (Robinson et al., 2020). This report consists of the initial balance, the addition or reduction of the balance in the specified period, and the ending balance of equity.

Picture 17.
Statement of Financial Position

Laporan Posisi Keuangan		Per Tanggal 30/11/2022
Aset		
Aset Lancar		
1.120	Ura	Rp120,000,000
1.130	Hutang Usaha	Rp10,000,000
1.140	Stok	Rp20,000,000
1.150	Persediaan	Rp10,000,000
1.160	Hutang Lain-lain	Rp10,000,000
Aset Tetap		
1.220	Peralatan	Rp10,000,000
1.230	Akumulasi Penyusutan/Persediaan	Rp10,000,000
Total Aset		
		Rp171,422,000
Liabilitas dan Ekuitas		
Liabilitas		
1.120	Hutang Usaha	Rp10,000,000
1.130	Hutang Lain-lain	Rp10,000,000
1.140	Hutang Lain-lain	Rp10,000,000
Ekuitas		
1.220	Modal	Rp139,467,000
1.230	Akumulasi Penyusutan/Persediaan	Rp10,000,000
Total Liabilitas dan Ekuitas		
		Rp171,422,000

Source: Processed Data, 2022

Statement of financial position is a report that presents the assets, liabilities, and equity of a company at a certain time. This report provides information about the number of company resources that can help predict risks and future cash flows (Kieso et al., 2018).

Picture 18.
Trial Balance

Account Name	Debit	Credit
1.000.000.000		
1.000.000.001		
1.000.000.002		
1.000.000.003		
1.000.000.004		
1.000.000.005		
1.000.000.006		
1.000.000.007		
1.000.000.008		
1.000.000.009		
1.000.000.010		
1.000.000.011		
1.000.000.012		
1.000.000.013		
1.000.000.014		
1.000.000.015		
1.000.000.016		
1.000.000.017		
1.000.000.018		
1.000.000.019		
1.000.000.020		
1.000.000.021		
1.000.000.022		
1.000.000.023		
1.000.000.024		
1.000.000.025		
1.000.000.026		
1.000.000.027		
1.000.000.028		
1.000.000.029		
1.000.000.030		
1.000.000.031		
1.000.000.032		
1.000.000.033		
1.000.000.034		
1.000.000.035		
1.000.000.036		
1.000.000.037		
1.000.000.038		
1.000.000.039		
1.000.000.040		
1.000.000.041		
1.000.000.042		
1.000.000.043		
1.000.000.044		
1.000.000.045		
1.000.000.046		
1.000.000.047		
1.000.000.048		
1.000.000.049		
1.000.000.050		

Source: Processed Data, 2022

Trial balance report is a report that displays a summary of the number of changes in the balance of each account at a specified time. This report consists of account numbers, account names, debit balances, and credit balances.

Picture 19.
Sales Report

Sales Number	Date	Sales	Balance
0001	01/01/2022	1000	1000.000.000
0002	01/02/2022	2000	2000.000.000
0003	01/03/2022	3000	3000.000.000
0004	01/04/2022	4000	4000.000.000
0005	01/05/2022	5000	5000.000.000
0006	01/06/2022	6000	6000.000.000
0007	01/07/2022	7000	7000.000.000
0008	01/08/2022	8000	8000.000.000
0009	01/09/2022	9000	9000.000.000
0010	01/10/2022	10000	10000.000.000
0011	01/11/2022	11000	11000.000.000
0012	01/12/2022	12000	12000.000.000
0013	01/13/2022	13000	13000.000.000
0014	01/14/2022	14000	14000.000.000
0015	01/15/2022	15000	15000.000.000
0016	01/16/2022	16000	16000.000.000
0017	01/17/2022	17000	17000.000.000
0018	01/18/2022	18000	18000.000.000
0019	01/19/2022	19000	19000.000.000
0020	01/20/2022	20000	20000.000.000
0021	01/21/2022	21000	21000.000.000
0022	01/22/2022	22000	22000.000.000
0023	01/23/2022	23000	23000.000.000
0024	01/24/2022	24000	24000.000.000
0025	01/25/2022	25000	25000.000.000
0026	01/26/2022	26000	26000.000.000
0027	01/27/2022	27000	27000.000.000
0028	01/28/2022	28000	28000.000.000
0029	01/29/2022	29000	29000.000.000
0030	01/30/2022	30000	30000.000.000

Source: Processed Data, 2022

Sales report is a report that presents all sales transactions made in the specified period. This report consists of sales number, date of sale, customer code, customer name, and sales balance.

Picture 20.
Purchase Report

Purchase Number	Date	Purchase	Balance
0001	01/01/2022	1000	1000.000.000
0002	01/02/2022	2000	2000.000.000
0003	01/03/2022	3000	3000.000.000
0004	01/04/2022	4000	4000.000.000
0005	01/05/2022	5000	5000.000.000
0006	01/06/2022	6000	6000.000.000
0007	01/07/2022	7000	7000.000.000
0008	01/08/2022	8000	8000.000.000
0009	01/09/2022	9000	9000.000.000
0010	01/10/2022	10000	10000.000.000
0011	01/11/2022	11000	11000.000.000
0012	01/12/2022	12000	12000.000.000
0013	01/13/2022	13000	13000.000.000
0014	01/14/2022	14000	14000.000.000
0015	01/15/2022	15000	15000.000.000
0016	01/16/2022	16000	16000.000.000
0017	01/17/2022	17000	17000.000.000
0018	01/18/2022	18000	18000.000.000
0019	01/19/2022	19000	19000.000.000
0020	01/20/2022	20000	20000.000.000
0021	01/21/2022	21000	21000.000.000
0022	01/22/2022	22000	22000.000.000
0023	01/23/2022	23000	23000.000.000
0024	01/24/2022	24000	24000.000.000
0025	01/25/2022	25000	25000.000.000
0026	01/26/2022	26000	26000.000.000
0027	01/27/2022	27000	27000.000.000
0028	01/28/2022	28000	28000.000.000
0029	01/29/2022	29000	29000.000.000
0030	01/30/2022	30000	30000.000.000

Source: Processed Data, 2022

Purchase report is a report that presents all purchase transactions made in the specified period. This report consists of purchase number, purchase date, supplier code, supplier name, and purchase balance.

Picture 21.
Stock Report



Kode Produk	Nama Produk	Nomor Transaksi	Tanggal	Stok Masuk	Stok Keluar	Saldo
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Source: Processed Data, 2022

Stock report is a report that shows the number of stocks available on a certain date. This report can be used to find out the amount of incoming and outgoing stock of the product they have. This report consists of product code, product name, transaction number, date, incoming stock, outgoing stock, and balance.

Conclusions

Alip Seafood is an enterprise that still records its accounting record manually without any integrated accounting system. This limitation often results in human errors such as inaccuracies and omissions in the recording. In addition, financial reports are also unable to be generated because of the limitations. Thus, the owner of Alip Seafood faces difficulties in knowing the financial position and performance which can be the basis for making financial decisions. An accounting system based on Microsoft Access is designed to help the owner in recording transactions and preparing financial reports easily and accurately. The system was designed according to the owner's needs. The system designed has helped the owner to be able to generate financial reports that allow the owner to understand more about the financial position and performance. The owner is also able to generate other reports such as accounts payable report, sales report, purchase report, and stock report that allows the owner to supervise the transactions from the operating activities precisely and effectively. This community service project has assisted the owner to create dependable data in supporting the owner to make the best financial decisions to maintain Alip Seafood's sustainability. However, the system designed is still far from perfect and still needs to be improved. Thus, the author hopes that the system designed can be developed further and can be used by the owner consistently to provide accurate and useful accounting information for users in decision-making. Recommendations for the further program are to design an accounting system that is more useful, interesting, innovative, and has more features that can be used more conveniently by users. This community service project can be completed thanks to various parties. The author would like to thank all the parties that were involved directly and indirectly in this activity, especially the owner of Alip Seafood and supervisor for the time, opportunities, and considerations.

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