

Received : November 31, 2022
Accepted : December 21, 2022
Published : March, 2023

Conference on Community Engagement Project
<https://journal.uib.ac.id/index.php/concept>

Design And Implementation Of An Accounting Information System At Kedai Kopi Simpang Empat

Meily Juliani¹, Saphira Evani²

Universitas International Batam

Email of correspondence: meily.juliani@uib.ac.id

Abstract

This project intends to design an adequate accounting system that is easy to understand to solve the problem encountered by Kedai Kopi Simpang Empat in recording and reporting financial activity. This problem arises as the business struggles to record the ingoing and outgoing cash flow manually hence increasing the occurrence of recording errors. In addition, the business also faces difficulty in generating financial reports resulting in delays or wrong decision-making for the future growth of the business. The methods used in compiling data are interviews, observation and documentation. The implementation result of the system proves that there is an improvement in the effectiveness and efficiency of the financial recording and reporting activity as the system can assist its day-to-day transactions and convert them into analysable financial reports. As the system's design is relatively simple, it is recommended that future researchers improve the design and add more features to create a more user-friendly system for the users.

Keywords: *Accounting System, Financial Reports, MSME*

Introduction

MSMEs are productive businesses owned by individuals or business entities that have met the criteria set out in Law no. 20 of 2008 concerning Micro, Small and Medium Enterprises. Based on information from the Ministry of Cooperatives and Small and Medium Enterprises, the number of MSMEs reached 64.2 million with a contribution to the gross domestic product (GDP) of IDR 8.57 trillion (Nurhaliza, 2022; Chandra & Cintya, 2021). Therefore, MSMEs have an important role as the backbone of the national economy (Muhammad, 2021). As the backbone of the Indonesian economy, MSMEs need to continue to grow to compete with large companies (Hakiki et al., 2020; Anita & Amalia, 2021). But unfortunately, many MSMEs are still not aware of the importance of neat financial records and bookkeeping (Latief, 2018; Edi & Wati, 2022).

An accounting information system (AIS) is a system designed to collect and display accounting information so that it could produce financial information needed by the business. AIS has an important role in the progress of a business. AIS is important because it could contribute to planning, monitoring, controlling and

decision-making (Lestanti, 2015). The implementation of AIS makes it easier for MSMEs to make decisions about the market development, pricing and preparation of financial reports (Saraswati et al., 2021).

Kedai Kopi Simpang Empat is one of the MSMEs in Batam City. Kedai Kopi Simpang Empat has been operating for more than 7 years but still does its accounting record manually. The accounting record referred to is a cash-based recording method by recording the incoming and outgoing cash through a book. In addition, Kedai Kopi Simpang Empat also does not has inventory records so it cannot know how much inventory is used each day. To overcome this problem, the author is interested in designing a simple accounting information system at Kedai Kopi Simpang Empat. The design of this system is expected to help Kedai Kopi Simpang Empat to manage its finances smoothly.

Methods

The project was carried out at Kedai Kopi Simpang Empat which is located at Penuin Centre Complex, Block OD No. 7, Batam. This project is classified as qualitative research. Qualitative research is research that uses a natural approach and sensitivity to the symptoms that are seen, heard, felt and thought (Salim & Syahrums, 2012). Lincoln and Guba (1985) in Salim and Syahrums (2012) stated that the techniques used in collecting qualitative data are interviews, observation and document review. The author conducted interviews directly with the manager of the MSME to ask questions about bookkeeping procedures and expectations that need to be met with the new system. This information can be used as an illustration for creating an accounting system. In addition, the author observed that Kedai Kopi Simpang Empat still records its financial transactions manually and does not have an effective and efficient system. Furthermore, the author also borrows the sales invoice, purchase invoice and inventory lists and records the MSME menu list as a reference in making an accounting system. The process of design and implementation of the accounting system is scheduled from the 1st of June 2022 until the 2nd of December 2022.

Table 1.
Schedule and Plan of Implementation

No	Activity	Date
1	Searching for MSME	01 Jun 22 – 20 Jun 22
2	Collecting data and problem analysis	25 Jun 22 – 10 Aug 22
3	System planning	11 Aug 22 – 16 Sep 22
4	System consultation with supervisors	14 Aug 22 – 15 Oct 22
5	System finalization	15 Oct 22
6	System implementation	21 Oct 22 – 30 Nov 22
7	Supervisor visit and evaluation of system implementation	02 Dec 22

Source: Author (2022)

Result and Discussion

The application used to design and develop the accounting system is Microsoft Access. The main purpose of this system is to make it easier for Kedai Kopi Simpang Empat to record its transactions and provide information for the business owner so that business owners can control and provide solutions to various problems. Therefore, this system is designed in a simple way and accordance with the operational characteristics of Kedai Kopi Simpang Empat so that it can be understood easily. The implementation of the system started on the 21st of October 2022 by explaining how the system works and how to input the master data into the system. The author also provides some simple examples of data that must be entered into the system. On October 31, 2022, a visit was made to see the results of input master data and teach the steps to input sales and purchase transactions. The third visit was conducted on November 10, 2022 to see the results of input transactions and explain how to input cash inflows and cash disbursement transactions. The author looks at the results of input from previous transactions and teaches how to use the general journal form on November 18, 2022. Because the MSME is still confused about general journal transactions, the author visit on November 29, 2022 to explain how the general journal works to the MSMEs. After the system had been fully implemented by the MSMEs, the author returned to visit on December 1, 2022 to ensure that users had no problems or difficulties when using the system.

The designed system has the following features:

1. Main Menu

The initial display when opening the system is the main menu. The main menu displays the list menu, transaction menu and report menu. The list menu includes permanent or rarely changed information. The transaction menu consists of forms to record the financial and non-financial transactions that occur. The report menu displays financial reports containing information needed by interested parties.

Picture 1.
Main Menu



Source: Author (2022)

2. List Menu

The list menu is a menu that contains forms that includes information that is unique or cannot be duplicated and does not change or rarely changes. The information mentioned is in the form of chart of accounts, list of assets, list of food menus being sold, list of inventory and list of suppliers. The data listed in this form is the master file of the system. If there is additional data, the data must be registered in the master file before entering the transaction. Lastly is the home icon which function is to return to the main menu and the logout button to close the application.

Picture 2.

List Menu



Source: Author (2022)

3. Transaction Menu

The transaction menu is a menu that contains a list of forms that are often used by MSME. On this menu, there are purchase form that is used to record purchase transactions, sales form that records all sales transactions, cash receipt form that is used to record all cash receipts and cash disbursement form that records all cash disbursements. In addition, the transaction menu also has a general journal form that is used to record transactions that do not fall into the above categories.

Picture 3.

Transaction Menu



Source: Author (2022)

4. Report Menu

The report menu is a menu that contains all financial reports this system can provide. This menu also has a report date selection feature by filling in the From and To fields with the desired date. This feature is important because the cut-off period in accounting is very important. Financial reports that the system can produce include sales report, purchase report, financial position report, profit or loss report and change in capital report. This system also able to present ledger and trial balance to make it easier to see all transactions that occur and the final balance in each account.

Picture 4.

Report Menu



Source: Author (2022)

5. Chart of Accounts Form

The chart of accounts form serves to record the master data of the number and name of the account needed for recording transactions and designing MSME financial reports. This data has properties that cannot be the same or repeated. The fields that must be filled in this form are account number, account name, account detail number, account detail name and balance. On the right side of this form, there are buttons designed to make it easier for users. The buttons are the search button which is used as a shortcut to find certain data, the pencil button to make a new transaction, the trash can button to delete transactions that have been recorded and the save button to save new data. There is also a cross button to close the opened form.

Picture 5.
Chart of Accounts Form

Source: Author (2022)

6. Asset List Form

The asset list form serves to record the master data of fixed assets owned by MSME. This data has properties that cannot be repeated or the same. The lines that must be filled in the asset list form are the name of the asset, date of acquisition, acquisition price, the quantity and duration of usage. Asset codes can appear automatically to make it easier for users. The depreciation value per month can be calculated by the system automatically when the information on the acquisition price, quantity and duration of usage has been filled in. On the right side of this form, there are buttons designed to make it easier for users. The buttons are the search button which is used as a shortcut to find certain data, the pencil button to make a new transaction, the trash can button to delete transactions that have been recorded and the save button to save new data. There is also a cross button to close the opened form.

Picture 6.
Asset List Form

Source: Author (2022)

7. Menu List Form

The menu list form serves to record the master data of food and beverage menus served by MSME. This data has properties that cannot be repeated. The mandatory fields in the menu list form are the inventory name and the selling price of the menu. On the right side of this form, there are buttons designed to make it easier for users. The buttons are the search button which is used as a shortcut to find certain data, the pencil button to make a new transaction, the trash can button to delete transactions that have been recorded and the save button to save new data. There is also a cross button to close the opened form.

Picture 7.
Menu List Form



Source: Author (2022)

8. Item List Form

The item list form serves to record the master data list of goods to be purchased by MSME. This data has properties that cannot be repeated. The mandatory fields in the list of goods form are the name of the goods and the type of goods. The type of goods can be selected from the list provided. Item codes can appear automatically to make it easier for users to register goods. On the right side of this form, there are buttons designed to make it easier for users. The buttons are the search button which is used as a shortcut to find certain data, the pencil button to make a new transaction, the trash can button to delete transactions that have been recorded and the save button to save new data. There is also a cross button to close the opened form.

Picture 8.
Item List Form



Source: Author (2022)

9. Supplier List Form

The supplier list form functions to record supplier master data that provides raw materials purchased by MSME. This data has properties that cannot be repeated. The lines that must be filled in the supplier list form are the supplier's name, the supplier's address and the supplier's telephone number. On the right side of this form, there are buttons designed to make it easier for users. The buttons are the search button which is used as a shortcut to find certain data, the pencil button to make a new transaction, the trash can button to delete transactions that have been

recorded and the save button to save new data. There is also a cross button to close the opened form.

Picture 9.
Supplier List Form

Source: Author (2022)

10. Sales Form

The sales form has a function to record all sales transactions that occur. Sales transactions can be recorded by cash and transfers which are payment method options provided by MSME. The data that must be filled in to record this transaction is the date of sale, method of payment, name of the menu ordered and the quantity. Data on sales numbers, inventory codes and sales prices can be filled in automatically from the system so that it can simplify and shorten the user's time in inputting. On the right side of this form, there are buttons designed to make it easier for users. The buttons are the search button which is used as a shortcut to find certain data, the pencil button to make a new transaction, the trash can button to delete transactions that have been recorded and the save button to save new data. There is also a cross button to close the opened form.

Picture 10.
Sales Form

Kategori	Uraian	Kuantitas	Harga	Total Harga
Makanan	Makanan	1	Rp 5.000	Rp 5.000
Minuman	Minuman	1	Rp 5.000	Rp 5.000

Source: Author (2022)

11. Cash Receipts Form

The cash receipts form is a form that records all transactions related to money received internally or externally. The data that must be filled in are the date of the transaction, method of receipt, account details, description or explanation of receipt of money and amount of money received. The detail of the account is the account used to record the credit side of the transaction while the debit side is determined by selecting the receiving method from the list presented. The receiving method in this form are cash receipts in cash or transfer. On the right side of this form, there are buttons designed to make it easier for users. The buttons are the search button which is used as a shortcut to find certain data, the pencil button to make a new transaction, the trash can button to delete transactions that have been recorded and

the save button to save new data. There is also a cross button to close the opened form.

Picture 11.
Cash Receipts Form



Source: Author (2022)

12. Purchase Form

The purchase form has a function to record all purchase transactions that occur. Purchase transactions that are recorded can be in the form of cash, transfer and debt which are the payment method options used. The data that must be filled in to record this transaction are the purchase invoice number, invoice date, supplier name, payment method, item name, price per unit, quantity and unit of measurement used. On the right side of this form, there are buttons designed to make it easier for users. The buttons are the search button which is used as a shortcut to find certain data, the pencil button to make a new transaction, the trash can button to delete transactions that have been recorded and the save button to save new data. There is also a cross button to close the opened form.

Picture 12.
Purchase Form



Source: Author (2022)

13. Cash Disbursement Form

The cash disbursement form is a form that records all transactions related to externally disbursed cash. The data that must be filled in the cash disbursement form are the date of the transaction, the method of payment, a description and the amount of money issued. The payment methods in this form are cash or transfer. On the right side of this form, there are buttons designed to make it easier for users. The buttons are the search button which is used as a shortcut to find certain data, the pencil button to make a new transaction, the trash can button to delete transactions that have been recorded and the save button to save new data. There is also a cross button to close the opened form.

Picture 13.
Cash Disbursement Form



Source: Author (2022)

14. General Journal Form

General journal form is a form created to record other transactions that cannot be classified in the four categories of forms described above. Therefore, a general journal is needed to help process these transactions. The transaction in question can be in the form of a capital withdrawal transaction, recognition of depreciation expense on fixed assets and recognition of employee salary expenses. The data that must be filled in the general journal form are the date of the transaction, description, details of debit and credit accounts and the amount of money. On the right side of this form, there are buttons designed to make it easier for users. The buttons are the search button which is used as a shortcut to find certain data, the pencil button to make a new transaction, the trash can button to delete transactions that have been recorded and the save button to save new data. There is also a cross button to close the opened form.

Picture 14.
General Journal Form



Source: Author (2022)

15. Income Statement

The income statement is a report that provides information about the company's performance periodically. The income statement displays information on the number of sales and the amount of expenses incurred in a period. If the report shows a net profit, the business carries out activities under expectations. If it shows a net loss, the business must replace or improve the operational procedures.

Picture 15.
Income Statement

Laporan Laba Rugi		
From: 01-Oct-22 To: 31-Oct-22		
Tuesday, January 24, 2023		
Pendapatan		
Pendapatan	Rp 127,575,000	
Subtotal :		Rp 127,575,000
Harga Pokok Pendapatan		
Harga Pokok Pendapatan	(Rp 82,100,000)	
Subtotal :		(Rp 82,100,000)
Beban		
Beban Gaji	(Rp 20,000,000)	
Beban Air dan Listrik	(Rp 1,500,000)	
Beban Internet	(Rp 900,000)	
Beban Sewa	Rp 0	
Beban Depresiasi	Rp 0	
Beban Lain-Lain	(Rp 118,000)	
Subtotal :		(Rp 22,518,000)
Laba/Rugi :		Rp 82,957,000

Source: Author (2022)

16. Statement of Financial Position

A Statement of financial position is a report that states the position of assets, debt and capital owned by a business in a certain period. The arrangement is sequential, starting from assets and continuing with debt and capital.

Picture 16.
Statement of Financial Position

Laporan Posisi Keuangan		
From: 01-Jan-22 To: 30-Jun-22		
Thursday, October 6, 2022		
Aset		
Kas	Rp 131,961,950	
Kas di Bank	Rp 85,384,000	
Perawatan	(Rp 1,550,000)	
Peralatan	Rp 0	
Akumulasi Penyusutan Peralatan	Rp 0	
Subtotal		Rp 213,215,950
Liabilitas		
Utang Usaha	(Rp 9,324,000)	
Subtotal		(Rp 9,324,000)
Ekuitas		
Modal	(Rp 204,491,950)	
Subtotal		(Rp 204,491,950)
TOTAL :		Rp 0

Source: Author (2022)

17. Statement of Changes in Equity

A statement of changes in equity is a report that provides information in the form of a business owner's capital at the beginning of a period and the end of a period. This information is obtained from the capital that the owner put into the business plus the profit generated and reduced by the withdrawal of capital made in that period.

Picture 17.
Statement of Changes in Equity

Laporan Perubahan Modal		Thursday, October 8, 2022	
From: 01-Jun-22 To: 30-Jun-22			
Modal Awal		Rp 200,000,000	
Perubahan Modal			
Laba/Rugi	Rp 54,491,965		
Penarikan Modal	Rp 50,000,000		
Total Perubahan Modal		Rp 104,491,965	
Modal Akhir		Rp 204,491,965	

Source: Author (2022)

18. Trial Balance

Trial balance is a report that contains information on the ending balance of each account for a certain period.

Picture 18.
Trial Balance

Neraca Saldo		Tuesday, January 24, 2023	
From: 01-Oct-22 To: 31-Oct-22			
No Akun	Nama Akun	Debit	Kredit
101	Kas	Rp 3,711,000	Rp 0
102	Kas di Bank	Rp 18,029,000	Rp 0
103	Persediaan	Rp 0	Rp 0
104	Peralatan	Rp 0	Rp 0
108	Akumulasi Penyusutan Peralatan	Rp 0	Rp 0
201	Utang Usaha	Rp 0	Rp 23,190,000
301	Modal	Rp 0	Rp 190,000
302	Perubahan Modal	Rp 63,487,000	Rp 0
401	Perputaran	Rp 0	Rp 137,575,000
901	Harga Pokok Perputaran	Rp 52,150,000	Rp 0
601	Beban Gaji	Rp 20,000,000	Rp 0
602	Beban Air dan Listrik	Rp 1,000,000	Rp 0
603	Beban Internet	Rp 900,000	Rp 0
604	Beban Sewa	Rp 0	Rp 0
605	Beban Depresiasi	Rp 0	Rp 0
606	Beban Lain-Lain	Rp 110,000	Rp 0
Total		Rp 181,285,000	Rp 181,285,000

Source: Author (2022)

19. Purchase Report

The purchase report is a report that presents all business purchases during a certain period. This report is organized based on supplier names making it easier for users to find out the frequency of purchases and the amount of money spent on each supplier.

Picture 19.
Purchase Report

Laporan Pembelian		Thursday, October 8, 2022				
From: 01-Jun-22 To: 30-Jun-22						
Tanggal	No Pembelian	No Invoice	Nama Barang	Kuantitas	Total	Metode Pembayaran
Apple Prima Perkasa						
	8219002	72 28118	Spesial	2	Rp 400,000	Kas
					Subtotal	Rp 400,000
AMI						
	8030002	88 102022	Air	1	Rp 1,300,000	Kas
					Subtotal	Rp 1,300,000
Ayen						
	8110002	1 10102	Daigay (Kas)	10	Rp 1,200,000	Utang
	8090002	7 10202	Daigay (Kas)	12	Rp 1,440,000	Utang
	8100002	12 10302	Daigay (Kas)	12	Rp 1,440,000	Utang
	8140002	48 10402	Daigay (Kas)	12	Rp 1,440,000	Utang
	8160002	32 10502	Daigay (Kas)	11	Rp 1,320,000	Utang
	8170002	20 10702	Daigay (Kas)	10	Rp 1,200,000	Utang
	8110002	30 10102	Daigay (Kas)	15	Rp 1,500,000	Utang
	8110002	42 10102	Daigay (Kas)	10	Rp 1,200,000	Utang

Source: Author (2022)

20. Sales Report

Sales report is a report that presents the number of sales made during a certain period. This report is arranged based on the name of the foods and drinks, making it easier for users to find out the frequency of sales and the number of orders from the menu. This report is also useful as a reference for the owner to consider whether the menu will remain or stop being sold.

Picture 20.
Sales Report



Tanggal	No Penjualan	Kuantitas	Total Harga	Metode Pembayaran
1 Bak Kacang				
01/12/22	36	2	Rp 80,000	Kas
01/12/22	36	1	Rp 45,000	Kas
01/12/22	22	1	Rp 45,000	Kas
01/12/22	23	1	Rp 45,000	Kas
01/12/22	26	1	Rp 45,000	Transfer
01/12/22	27	1	Rp 45,000	Kas
01/12/22	29	1	Rp 45,000	Transfer
01/12/22	31	3	Rp 135,000	Transfer
01/12/22	33	1	Rp 45,000	Transfer
01/12/22	38	2	Rp 80,000	Kas
01/12/22	38	1	Rp 45,000	Kas
01/12/22	40	1	Rp 45,000	Kas
01/12/22	41	2	Rp 90,000	Transfer
01/12/22	43	1	Rp 45,000	Kas
01/12/22	43	2	Rp 80,000	Transfer

Source: Author (2022)

Conclusions

Kedai Kopi Simpang Empat is a MSME that has been operating for around 7 years. During these periods, Kedai Kopi Simpang Empat still does its accounting records manually by using books. This method of recording arises the problem of recording errors as Kedai Kopi Simpang Empat struggles to record the ingoing and outgoing cash flow manually. In addition, this method also leads to difficulty in generating financial reports resulting in delays or wrong decision-making for the future growth of the business. Therefore, the author designed an accounting system that can provide accurate financial information based on Microsoft Access. The implementation result of the system proves that there is an improvement in the effectiveness and efficiency of the financial recording and reporting activity as the system can assist its day-to-day transactions and convert them into analysable financial reports. As the system's design is relatively simple, it is recommended that future researchers improve the design and add more features to create a more user-friendly system for the users. In addition, the author would like to thank Kedai Kopi Simpang Empat for trusting the author to design and implement the accounting system, supervisors who guided the author through the process and friends who helped in designing the system.

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