Indian-Pacific Journal of Accounting and Finance (IPJAF)
ISSN: 2600-9161 eISSN: 2590-406X
Vol. 8 No. 1, 2024
pp. 13-31
https://doi.org/10.52962/ipjaf.2024.8.1.150

www.ipjaf.omjpalpha.com

Received 4 Jan 2024; Accepted 28 March 2024

Design and Development of a VBA Macro-Based Sales Accounting System For MSMEs: A Case Study of Reglow By Bundami Distributor

Nisa'ul Barkah, Ida Farida*, Arifia Yasmin

Politeknik Harapan Bersama, Tegal, Jawa Tengah, Indonesia

Abstract: Micro, Small, and Medium Enterprises (MSMEs) often rely on traditional accounting methods, which are not only inefficient but also prone to errors in recording and reporting. These shortcomings can adversely impact the financial health of MSMEs, particularly when their accounting systems fail to comply with SAK EMKM standards. This study aims to design and develop a sales accounting system application for Reglow by Bundami Distributor to address these challenges. Utilizing the Research and Development (R&D) approach, data were gathered through observation, interviews, and questionnaires. The software development process followed the sequential waterfall model, while system functionality was evaluated using Blackbox testing, expert validation, and practical trials at the distributor. The results demonstrate that the developed VBA macro-based accounting system effectively generates comprehensive sales reports, including total net sales, product quantities sold, and the availability of various product types. This system offers a practical solution to longstanding sales-related inefficiencies, streamlining administrative processes and enhancing operational productivity within MSMEs.

Keywords: Accounting information system, Digitisation of accounting, Macro VBA, Waterfall model

JEL Classification: M4, M41, M48
Paper Type: Research

* Corresponding author: E-mail: ulbabn@gmail.com

1. INTRODUCTION

Indonesia is one of the countries in the world with many small and medium enterprises (SMEs). According to data from the Central Bureau of Statistics (BPS), in 2020, there were 61.8 million small business units in Indonesia. So, currently, there is very tight competition among business actors, especially companies with Micro, Small, and Medium Enterprise capacity. Currently, MSMEs are an economic sector that many people rely on in the Indonesian economy(Biby et al., 2023). MSMEs are independent, productive economic enterprises carried out by individuals or business entities that meet the criteria for small businesses (Halim, 2020).

The development and growth of MSMEs need to continue to be improved because of their role in providing jobs that will directly reduce unemployment and lead to overcoming poverty.(Ismiwati et al., 2022). Apart from that, MSMEs are also seen as economic actors who are flexible enough to adapt to various changes in the business climate so they can still positively contribute to the country's economy. There are so many types of MSMEs growing in Indonesia which have a positive impact on the country, and it would be very good if these MSMEs could survive and develop as pillars of the economy in Indonesia (Arianti, 2020). However, until now, some MSMEs still use traditional accounting records. Apart from being inefficient, this can also increase the risk of errors in the accounting records and reports that are made, and the impact can be detrimental to the MSMEs themselves, especially if the accounting system implemented does not meet the EMKM SAK(Amin et al., 2021; Divine & Jaya, 2020).

From the problems found, the researcher will design an accounting information system. The role of an accounting information system in a company is very important and needed by management because an accounting information system can provide information related to financial reports that can be used to measure various company activities, as well as assess and measure the work results of each unit that has been given authority and responsibility. answer(Dewi & Nur'aini Rokhmania, 2021). The accounting information system also acts as a source of information used as a basis for consideration in management decision-making (Puspitawati et al., 2021). The accounting information system that will be created is a sales accounting system as a medium for recording transactions and creating sales reports using tools to design and create application programs using Microsoft Excel software. Microsoft Excel is a worksheet application program spreadsheet created and distributed by Microsoft Corporation for the operating system Microsoft WindowsAndMac.Microsoft Excel has a programming language called Macros Visual Basic for Applications(VBA). This management system uses VBA and Microsoft Excel because they are widely used in various companies and businesses and in software. This is quite cheap compared to the many alternative application choices.

Applications created using Macros Microsoft Excel will automatically help the administrative recording process using the language Visual Basic, better known as Visual Basic for Application (VBA) Macros. Automation, especially in Microsoft Excel, can be done using Macros. Macros are lines of command or code with which you want Excel to do something automatically. In other words, macros are code or scripts certain, whereas Visual Basic for Applications is a programming language used to create macros.

The object of this research or partner, namely Distributor Reglow Tegal by Bundami, is a business that sells skin care products or what is commonly known among the public, namely skin care. Reglow by Bundami Distributor is one of the MSME players that is still

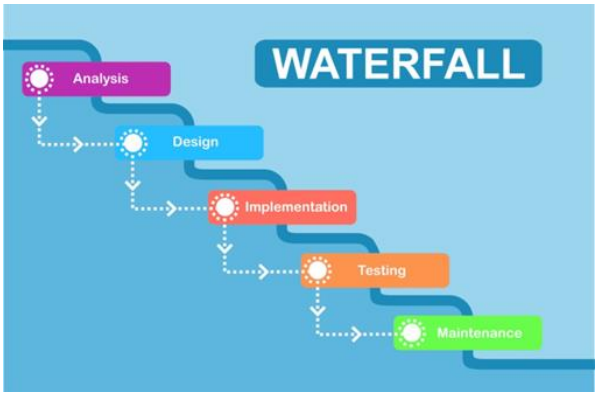
using a manual accounting system to run their business. There is no detailed recording of daily and monthly transaction information, which should be done to achieve better business progress. Sales transactions are still being recorded with a piece of paper and a report, which is only done in the WhatsApp group. The calculations are still done using traditional methods, often resulting in errors in the number of calculations.

Therefore, to improve the quality of business processes, especially the sales department, a good system is needed, which will later be used to improve the performance of this business. By taking advantage of technological advances that are increasingly developing to date, almost all activities carried out by humans use technology. Because it can make it easier for people to carry out activities, especially when completing their work. The contribution of this research can certainly help digitize accounting records and financial reporting at the Reglow by Bundami Distributor so that they know the profits generated from their business activities. Another contribution is helping to overcome sales problems by building a sales information system based on VBA macros and streamlining work in sales administration activities. This research is still rare and rarely found, so it has the potential to be developed further in the future, especially in manufacturing companies.

2. RESEARCH METHODS

In this research, the author used the Research and Development (R&D) research method. R&D is a research method that produces products in a certain area of expertise, followed by certain by-products, and produces effective products. This method is specifically for research that aims to produce a particular product(Zakariah et al., 2020). The author intends to produce application software that can run on Personal Computer (PC) hardware. This application software is based on VBA Macros and is in Microsoft Excel. The application in question is a cash sales information system that functions as a tool for processing sales data. As with the research the author will carry out, the most relevant method to use in this research is one of the classic process models, namely the waterfall model.

Figure 1. Waterfall Model Illustration



Source:(Riski, 2022).

The type of data used in this research is primary data and secondary data. Primary data in this research was obtained from the author's interviews with the resource person, namely the owner of Reglow by Bundami Distributor. The questionnaire results were given to respondents during application validation by filling out a questionnaire related to

designing an application for recording cash sales at the Reglow by Bundami distributor. Meanwhile, secondary data used in this research are company documentation data, reference books, and journals that are relevant to this research.

The methods researchers used to collect data in this research were library research and field research. Library research is a method of reading and studying literature to provide a theoretical basis for the discussed problem. On the other hand, field research is a data collection technique that involves visiting relevant companies in person and collecting data and information about the problem under study(Sugiyono, 2018). Researchers used methods including interviews, observations, and distributing questionnaires to obtain this data.

Researchers carried out this activity from December 2022 to February 2023, approximately within 3 months of research. This research was conducted at the Reglow By Bundami Distributor on Jalan Raya Kajen RT. 19/07 Badiran, District. Talang, Kab. Tegal.

This software development uses the waterfall process model, a systematic and sequential process model. The systematic waterfall process model itself has several stages (Zakariah et al., 2020) among others :

1. *Software Requirements Analysis*
This process aims to identify and understand what users need for the upcoming software. At this stage, it is hoped that all development process requirements can be built so that software development can run smoothly. This analysis covers all user and hardware needs, such as printers for sales reports, laptops, PCs, and Microsoft Excel software that allows you to enable VBA Macros.

2. *Design*
After the needs analysis has been carried out in the previous stage, the next step is the system design stage, which involves creating a model of the system to be built.

3. *Implementation*
The implementation process is carried out per the design created previously using the Macro VBA programming language in the Microsoft Office Excel application.

4. *Testing*
This testing or testing process is an important step that will determine the suitability of the software itself. The testing method used uses black box testing, which is used to test software without paying attention to software details (Kesuma Jaya et al., 2019). This test was carried out by validating media experts who were tested by Ida Afriliana, ST, M.Kom. and an expert validation of the material tested by Aryanto, SE, M.Ak.

3. RESULTS AND DISCUSSION

3.1 Requirements Analysis

This requirements analysis identifies the input specifications required by the system, the output produced by the system, and the processes required to process the input to produce the desired output. From the results of this analysis, the needs can be formulated as follows:

1. Reglow by Bundami Distributor Needs.

The needs of this system identify categories of application users from Bundami who will operate this application, including:

a. This system is designed to meet the needs of Reglow by Bundami distributors in recording sales information that has occurred to make work easier.
b. The system must be able to receive input information on sales of goods, add goods, and add stock.
c. The system was created with VBA Macros in Microsoft Office Excel 2016.
d. The system must be able to provide information and print transaction results as outlined in sales reports.

2. Hardware Requirements

What is needed is a printer machine and a computer or laptop with the following specifications:

a. RAM 2 GB (64-bit)
b. Processor Intel(R) Celeron(R) CPU N3150 @ 1.60GHz 1.60 GHz
c. HDD 500 GB
d. Resolution14”, 16:9, 1,366 x 768 pixels HD

3. Software Requirements

There are other operating systems that can support Windows 7, Windows 8, Windows 10, and Windows 11.There are also other versions of the operating system that can be used for the system being developed, including Microsoft Excel 2007, Microsoft Excel 2010, Microsoft Excel 2013, Microsoft Excel 2019, and Microsoft Excel, the latest version of Microsoft Office. The need for Microsoft Excel for the system developed by the author in this research is Microsoft Office Excel 2016.

Design (*design)*

1. Flow chart

A flowchart is a diagram that describes the process flow of a program. This diagram is very important during the program creation process because it helps translate the program's running process to make it easier to understand. Flowcharts can also make the process flow of a program clearer and more concise, reducing the possibility of misinterpretation.

2. Display Design

Appearance design is one of the important elements in user interface design because it provides a general overview to the user or users about the new system. The following is the design of the sales information system display on Distributor Reglow that suits your needs through the buttons and menus available in the main display of the system:

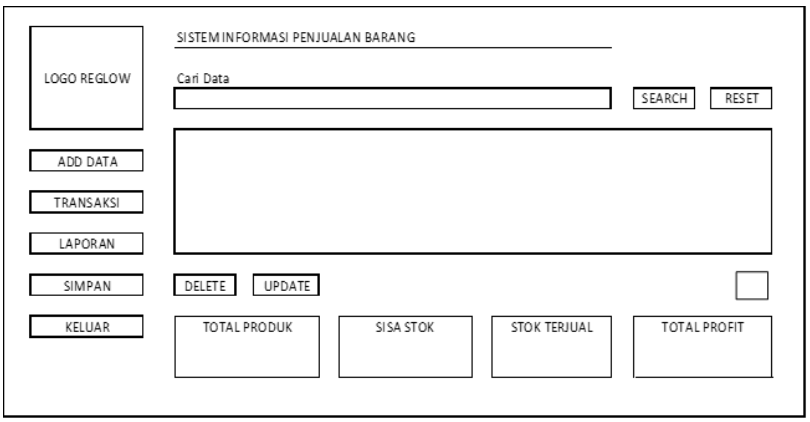


Figure 2. Main View Design

Implementation

This implementation realizes a previously designed design into a program or application unit by entering coding into the macro system in Microsoft Office Excel with the VBA programming language. PreparationTo be able to produce the application in question, including the following:

1. The author uses Microsoft Office Excel 2016 application software as the basis for creating the system in this research.
2. Activate the Developer toolbar in Microsoft Office Excel 2016, which will be used.
3. Activating Macros Visual Basic for Applications.

The following is the implementation result of the previously designed design:

1. System Main Page Display

Figure 3. System Main Page Design

The image above is the main page display design for the application according to the previous design plan. Then, so that the application can be run, the following coding is included in this design:

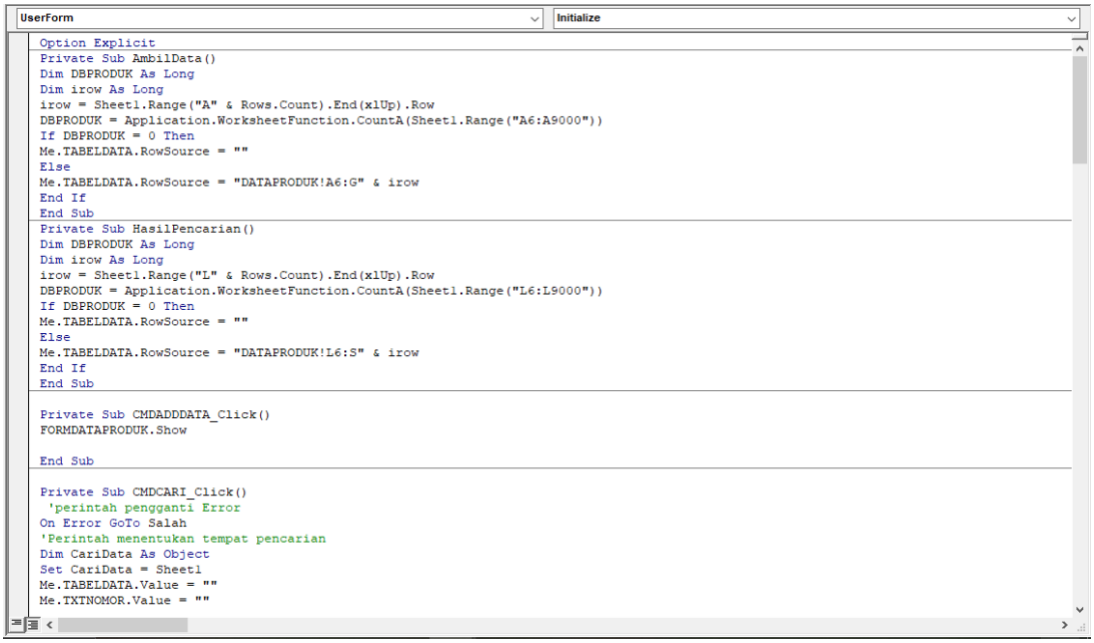


Figure 4. Coding System Main Page

When the coding that has been entered is functioning correctly, this main page can be used to find out the various products that are still available, the number of products, remaining stock, as well as the stock of products that have been sold and also display the total profit that has been collected. Apart from that, there is also an Add Data menu and a Transaction and Report menu.

Figure 5. Main Page Display Results

2. Display the Add Goods Form and Update Stock

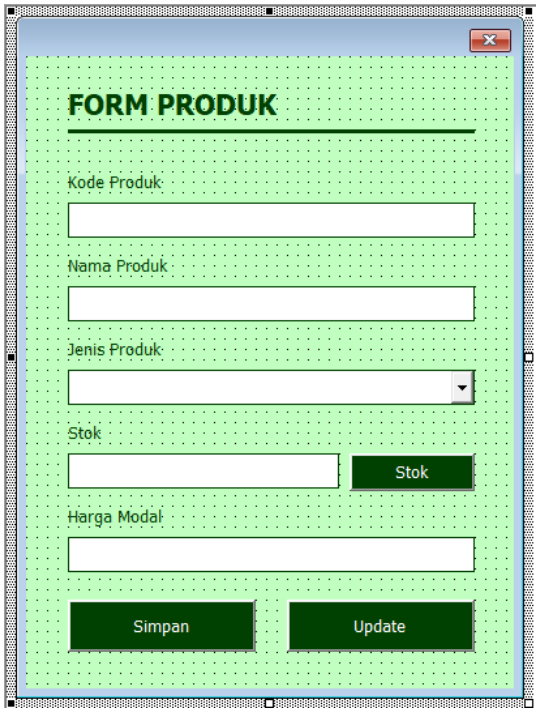


Figure 6. Design the Add Item Form

The image above is the display design for the Add Data menu according to the previous design. In the application by the previous design plan. Then, so that the application can be run, the following coding is included in this design:

```
UserForm                                                    Initialize

Private Sub CMDADDSTOK_Click()
If Me.TXTNAMAPRODUK.Value = "" Then
Call MsgBox("Pilih data produk terlebih dahulu", vbInformation, "Data Produk")
Else
FORMTAMBAHSTOK.Show
End If
End Sub

Private Sub CMDSIMPAN_Click()
'Perintah membuat nama tempat simpan data
Dim DBPRODUK As Object
'Perintah menentukan tempat simpan data
Set DBPRODUK = Sheet1.Range("A80000").End(xlUp)
'Perintah menentukan data yang wajib diisi
If Me.TXTKODEPRODUK.Value = "" _
Or Me.TXTNAMAPRODUK.Value = "" _
Or Me.CBJENIS.Value = "" _
Or Me.TXTSTOK.Value = "" _
Or Me.TXTHARGAMODAL.Value = "" Then

'Perintah membuat pesan jika data kosong
Call MsgBox("Harap isi data dengan lengkap", vbInformation, "Input Data")
'Perintah menyimpan data jika data diisi lengkap
Else
DBPRODUK.Offset(1, 0).Value = "=ROW()-ROW($A$5)"
DBPRODUK.Offset(1, 1).Value = Me.TXTKODEPRODUK.Value
DBPRODUK.Offset(1, 2).Value = Me.TXTNAMAPRODUK.Value
DBPRODUK.Offset(1, 3).Value = Me.CBJENIS.Value
DBPRODUK.Offset(1, 4).Value = Me.TXTSTOK.Value
DBPRODUK.Offset(1, 5).Value = Me.TXTHARGAMODAL.Value

Call AmbilData

FORMTABELPRODUK.LBTOTALBARANG.Caption = Format(Sheet3.Range("G4").Value, "#,###")
FORMTABELPRODUK.LBTOTALSTOK.Caption = Format(Sheet3.Range("G5").Value, "#,###")
FORMTABELPRODUK.LBSISASTOK.Caption = Format(Sheet3.Range("G6").Value, "#,###")
FORMTABELPRODUK.LBPROFIT.Caption = Format(Sheet3.Range("G7").Value, "Rp #,###")
```

Figure 7. Coding form Add item

The add item form comes from the Add Data menu on the main page. This form is used to add products that will be input into the sales information system. The following is the appearance of the Add Data menu form after entering the coding and getting it executed according to the command:

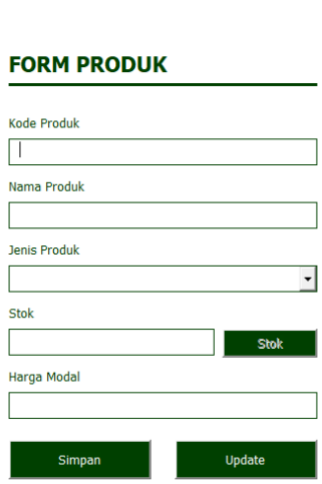


Figure 8. Result of the Add Items Form Display

In this form, columns are available to enter product data, starting from product code, product name, product type, available product stock and capital price. If all the data has been filled in completely, click save so that the data is stored in the system.

Figure 9. Design the Add Stock Form

Meanwhile, the form displayed above is a form for updating the number of product stocks already in the system. The form design can be run by coding as follows:

```
UserForm                                    Initialize

Option Explicit
Private Sub CMDSIMPAN_Click()
'Perintah membuat sumber data ubah
'Dim SumberUbah As Object
'Set SumberUbah = Sheet1.Range("A6:A10000").Find(WHAT:=FORMTABELPRODUK.TXTNOMOR.Value, LookIn:=xlValues)
If Me.TXTSTOK.Value = "" Then
Call MsgBox("Harap isi stok terlebih dahulu", vbInformation, "Stok Barang")
Else
'Perintah melarang update jika data belum dipilih
FORMDATAPRODUK.TXTSTOK.Value = Val(FORMDATAPRODUK.TXTSTOK.Value) + Val(Me.TXTSTOK.Value)
Me.TXTSTOK.Value = ""
End If
Unload Me
End Sub

Private Sub UserForm_Initialize()
Me.BackColor = RGB(255, 255, 255)

End Sub
```

Figure 10. Coding Form Add Stock

Before the add stock form can appear, the user must choose which type of product the stock amount will be updated in the table on the main page. Then click update, then the form will appear to update the product stock amount. The following is what the product form looks like after entering the coding, and can be executed according to the command:

Figure 11. Result of Add Stock Form Display

3. Transaction Form Display

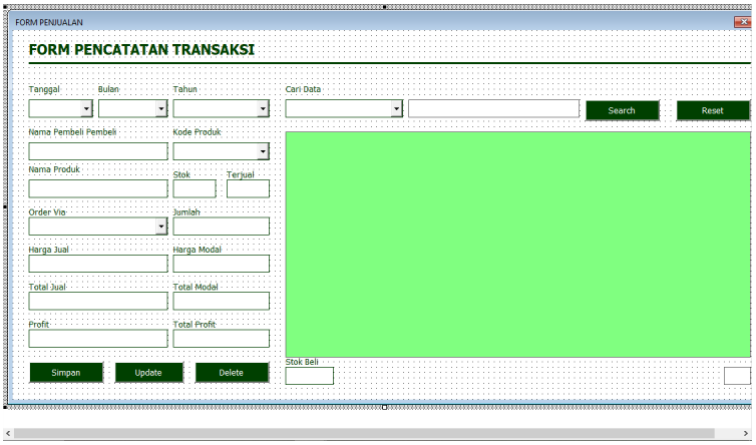


Figure 12. Transaction Form Design

The image above is a transaction form design according to the previous design. This form is used to update the number of product stocks that are already in the system. The transaction form design can be carried out by coding as follows:

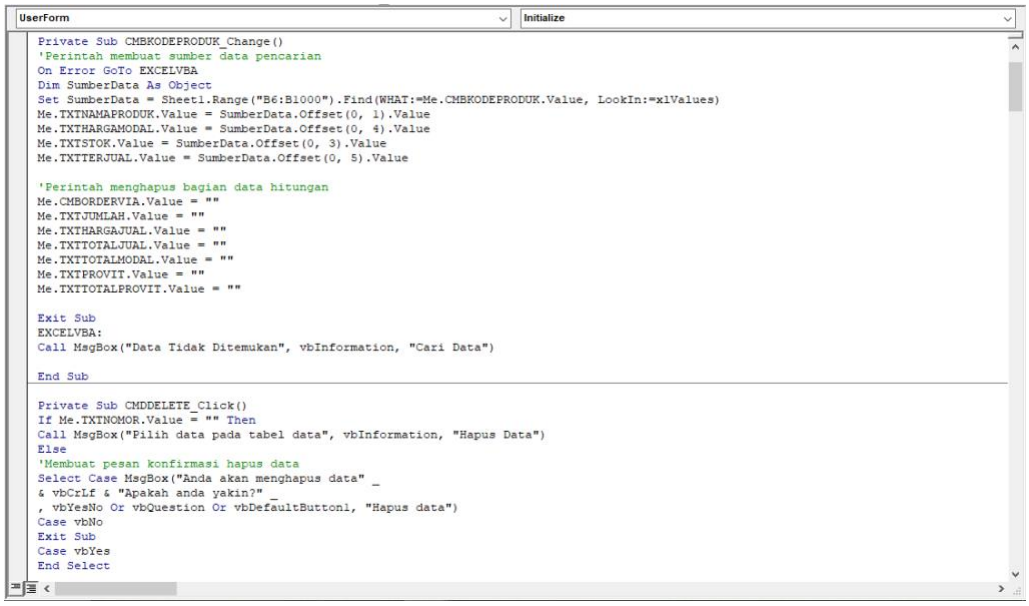


Figure 13. Coding Transaction Forms

The transaction recording form above is obtained when the transaction menu on the main page is accessed. This form displays all transaction data that has been input into the system, and users can also search for transaction data according to the available criteria and keywords.

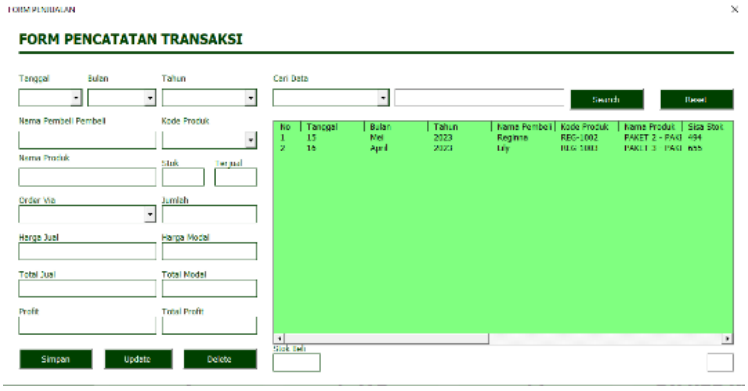


Figure 14. Transaction Form Display Results

4. Report Form Display

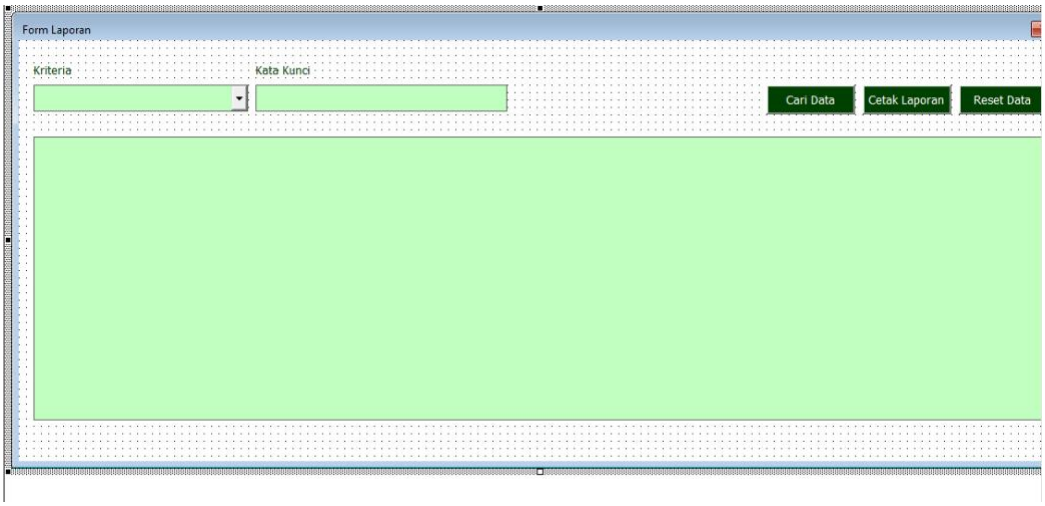


Figure 15. Report Form Design

The image above is a report form design according to the previous design. The transaction form design can be carried out by coding as follows:

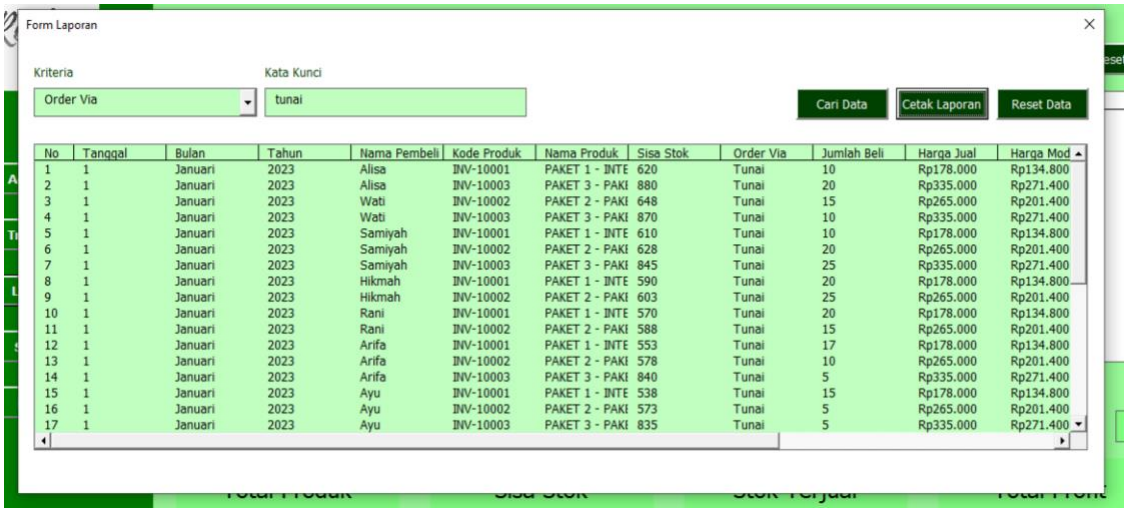
```
UserForm                                                    Initialize
Option Explicit
Private Sub CMDCARI_Click()
 'perintah pengganti Error
On Error GoTo Salah
'Perintah menentukan tempat pencarian
Dim CariData As Object
Set CariData = Sheet2
'Perintah memasukkan kriteria pencarian
CariData.Range("R5").Value = Me.CMBKRITERIA.Value
CariData.Range("R6").Value = Me.TXTCARI.Value
'Perintah melakukan Pencarian Data
CariData.Range("A6").CurrentRegion.AdvancedFilter Action:=xlFilterCopy, CriteriaRange:= _
Sheet2.Range("R5:R6"), Copytorange:=Sheet2.Range("T5:AI5"), Unique:=False
'Perintah memasukkan hasil pencarian ke TabelHasil
Call HasilPencarian
'Perintah lanjutan pengganti Error
Exit Sub
Salah:
Call MsgBox("Data tidak ditemukan", vbInformation, "Cari Data")

End Sub
Private Sub HasilPencarian()
Dim DBPRODUK As Long
Dim irow As Long
irow = Sheet2.Range("T" & Rows.Count).End(xlUp).Row
DBPRODUK = Application.WorksheetFunction.CountA(Sheet2.Range("T6:T9000"))
If DBPRODUK = 0 Then
Me.TABELDATA.RowSource = ""
Else
Me.TABELDATA.RowSource = "TABELPENJUALAN!T6:AI" & irow
End If
End Sub

Private Sub CMDCETAK_Click()
If Me.TABELDATA.ListCount = 0 Then
Call MsgBox("Maaf tidak ada data yang dicetak", vbInformation, "Cetak Data")
Else
```

Figure 16. Coding Report Forms

This sales report form comes from the report menu on the main page. This report form displays all sales transactions that occur according to the criteria and keywords that the user enters. Users can also see total net sales and the number of items sold in the sales report form.



No	Tanggal	Bulan	Tahun	Nama Pembeli	Kode Produk	Nama Produk	Sisa Stok	Order Via	Jumlah Beli	Harga Jual	Harga Mod
1	1	Januari	2023	Alisa	INV-10001	PAKET 1 - INTE	620	Tunai	10	Rp178.000	Rp134.800
2	1	Januari	2023	Alisa	INV-10003	PAKET 3 - PAKI	880	Tunai	20	Rp335.000	Rp271.400
3	1	Januari	2023	Wati	INV-10002	PAKET 2 - PAKI	648	Tunai	15	Rp265.000	Rp201.400
4	1	Januari	2023	Wati	INV-10003	PAKET 3 - PAKI	870	Tunai	10	Rp335.000	Rp271.400
5	1	Januari	2023	Samiyah	INV-10001	PAKET 1 - INTE	610	Tunai	10	Rp178.000	Rp134.800
6	1	Januari	2023	Samiyah	INV-10002	PAKET 2 - PAKI	628	Tunai	20	Rp265.000	Rp201.400
7	1	Januari	2023	Samiyah	INV-10003	PAKET 3 - PAKI	845	Tunai	25	Rp335.000	Rp271.400
8	1	Januari	2023	Hikmah	INV-10001	PAKET 1 - INTE	590	Tunai	20	Rp178.000	Rp134.800
9	1	Januari	2023	Hikmah	INV-10002	PAKET 2 - PAKI	603	Tunai	25	Rp265.000	Rp201.400
10	1	Januari	2023	Rani	INV-10001	PAKET 1 - INTE	570	Tunai	20	Rp178.000	Rp134.800
11	1	Januari	2023	Rani	INV-10002	PAKET 2 - PAKI	588	Tunai	15	Rp265.000	Rp201.400
12	1	Januari	2023	Arifa	INV-10001	PAKET 1 - INTE	553	Tunai	17	Rp178.000	Rp134.800
13	1	Januari	2023	Arifa	INV-10002	PAKET 2 - PAKI	578	Tunai	10	Rp265.000	Rp201.400
14	1	Januari	2023	Arifa	INV-10003	PAKET 3 - PAKI	840	Tunai	5	Rp335.000	Rp271.400
15	1	Januari	2023	Ayu	INV-10001	PAKET 1 - INTE	538	Tunai	15	Rp178.000	Rp134.800
16	1	Januari	2023	Ayu	INV-10002	PAKET 2 - PAKI	573	Tunai	5	Rp265.000	Rp201.400
17	1	Januari	2023	Ayu	INV-10003	PAKET 3 - PAKI	835	Tunai	5	Rp335.000	Rp271.400

Figure 17. Transaction Form Display Results

To be able to print the results of the sales report, in the report form there is a print report button. When the button is pressed, a message will appear to confirm whether to print the report. If you choose "no", the page will return to the previous report form, whereas if you choose "yes" the system will direct you to first save the sales report file in .pdf format. Then, open the saved report file. Below is a display of the sales report ready to be printed:

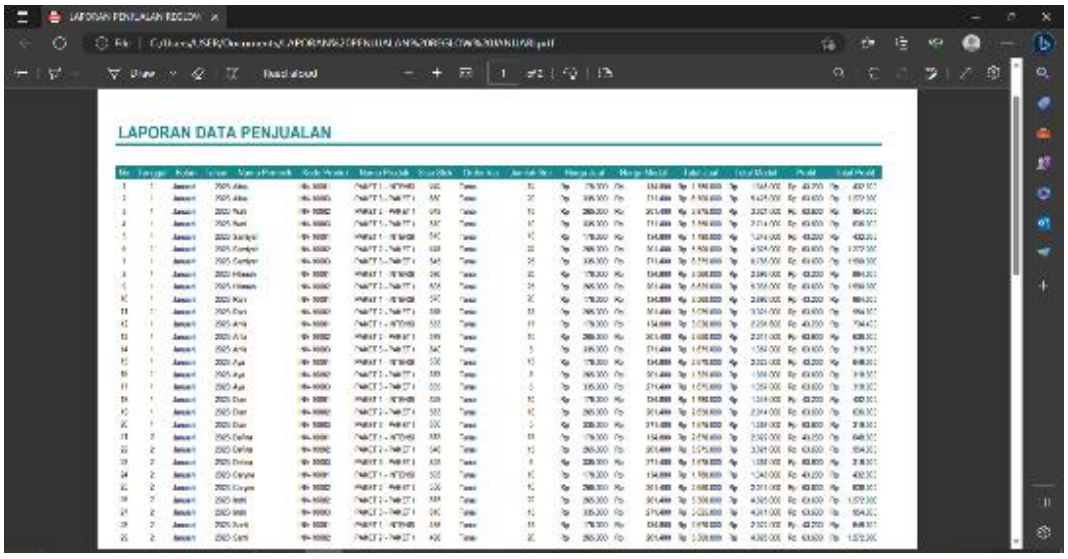


Figure 18. Report Data Format .pdf

Testing

The purpose of this testing is to ensure that the system designed meets expectations and can run smoothly following the needs and objectives of this research. The testing stage was carried out using the black box method. The application is tested using two testing processes: media experts and material experts and trial validation from the Reglow by Bundami Distributor.

1. Media Expert Testing Validation Results

Table 1. Media Expert Validation Results

Test Components	Expected results	Results obtained	Information
Product Table Data Menu	The system will display the application's main page, which contains a search column for product data and product data that is still available.	The system can display the application's main page.	In accordance
"Search" button	The system will display product names in a table according to keywords.	The system can display product names in tables according to keywords.	In accordance
"Reset" button	The system will delete and return the search results to the product list as the initial display.	The system can delete search results and return them to the product list as the initial display.	In accordance
"Delete" button	The system will delete the product name that was previously selected in the product data table.	The system can delete the product name.	In accordance
"Update" button	The system will update the item data that has been selected from the product data table.	The system can update item data.	In accordance

Test Components	Expected results	Results obtained	Information
Add Data menu	The system will display an add-item form to input new items or increase stock.	The system can display the add item form.	In accordance
Combo box "Types of products"	The system will display a choice of product types to be input.	The system can display a choice of product types to be input.	In accordance
"Stock" button	The system will display an add stock form used to add existing product stock to the product data table. If the product to be added to the data is new, then to add stock, only use the Stock Textbox.	The system can display an add stock form.	In accordance
"Save" button	The system will save and display the new product data entered into the product data table.	The system can store and display product data.	In accordance
"Update" button	The system will update the stock data for the items selected from the product data table.	The system can update stock data on goods.	In accordance
Transaction Menu	The system will display a transaction form used to input product sales transactions.	The system can display a transaction form.	In accordance
Combo box "Date"	The system will display a choice of the date the transaction occurred.	The system can display a choice of transaction dates.	In accordance
Combo box "Month"	The system will display a choice of months for the transaction to occur.	The system can display a choice of months for transactions to occur.	In accordance
Combo box "Year"	The system will display a selection of the year the transaction occurred.	The system can display a choice of the year the transaction occurred.	In accordance
"Search" button	The system will display the product name, order via, month, and year in a table according to keywords.	The system can display product name, order via, month, and year in a table according to keywords.	In accordance
"Reset" button	The system will delete search results and only display the sales data table.	The system can delete search results and display only the sales data table.	In accordance
Combo box "Product Code"	The system will display a selection of product codes inputted into product sales.	The system can display product code options.	In accordance
Combo box "Order Via"	The system will display options via social media that customers use to purchase products.	The system can display transaction options used in purchases.	In accordance
"Save" button	The system will save the data that has been input into the sales data table.	The system can save data that has been input into the sales data table.	In accordance

Test Components	Expected results	Results obtained	Information
"Update" button	The system will update the new data that has been input into the product table.	The system can update new data.	In accordance
"Delete" button	The system will delete the product name previously selected in the product data table.	The system can delete product names previously selected in the product data table.	In accordance
Report Menu	The system will display a Sales Report form, which will display all transaction data that has occurred.	The system will display a Sales Report form, which will display all transaction data that has occurred.	In accordance
Combo box"Criteria"	The system will display a selection of criteria for buyer name, product name, and order via keywords for searching sales report data.	The system can display the buyer's choice of criteria as keywords.	In accordance
"Search Data" button	The system will display sales report data according to the criteria or keywords that have been selected.	The system can display sales report data.	In accordance
"Print" button	The system will go through the data storage process first in .pdf data format, and then the data that has been saved will be ready to be printed as proof of sales reports.	The system can go through the data storage process first in .pdf data format, then the data that has been saved is ready to be printed as proof of sales reports.	In accordance
Save Menu	The system will save all processes that occur in the main menu.	The system can save all processes that occur in the main menu.	In accordance
Exit Menu	The system will display a message to convince the user whether they are really going to exit the application.	The system can display a message to reassure the user whether they are really going to exit the application.	In accordance

2. Material Expert Testing Validation Results

Table 2. Material Expert Validation Results

Question	Information
Conformity of content with the concept of a sales information system	In accordance
The clarity of the image illustrations presented is by the content of the material.	In accordance
Completeness of materials in designing the system	In accordance
Clarity of objectives of the sales information system	In accordance
Clarity of the information produced	In accordance
The language used is easy to understand	In accordance

3. Trial Results at Distributor Reglow by Bundami

The results of the application trial at Reglow by Bundami Distributor were obtained based on the questions provided, which then had to be answered by respondents according to the available criteria, including:
A : "Very good"
B : "Good"
C : "Enough"
D : "Not good"

Here are the results of the questions answered by respondents in table form:

Table 3. Trial Results at Distributor Reglow by Bundami

No	Indicator	Criteria			
		A	B	C	D
1	This application really helps companies in recording sales information.		✓		
2	This application has the appropriate features required by companies.	✓			
3	The layout and colors of the application are not boring.		✓		
4	The application navigation facilities are quite adequate.	✓			
5	The application is quite interactive and easy to use.	✓			
6	The application can save data that has been carried out (history).	✓			
7	The application can be easily used.		✓		
8	The application functions as expected.	✓			
9	The application generates reports that companies can use.	✓			
10	The language used in the application is easy to understand.	✓			

4. DISCUSSION

Based on the research results above, the information system's design is a cash sales recording application, built for Reglow by Bundami Distributors, and used Macros with the Visual Basic for Applications (VBA) programming language in Microsoft Excel 2016. The Waterfall model was used in the research and development of this application. Research methods*, such as research and development (R&D),* aim to produce certain products and test product effectiveness. This research applies each design created using Microsoft Excel 2016 and the program flow with flowcharts created using Draw.io, resulting in an application. After the application has been designed, the application is tested to ensure that all the features function according to your wishes and needs. The Blackbox testing type is used to test this application. Based on the black box testing in the form of validation results from material experts, it shows that the previously created application follows the material. Validation results from media experts also show that all the buttons on the application features that are created function as expected, but several suggestions for future researchers will be material for consideration for future researchers and can be adapted to the needs of the company or place to be researched.

In this application, several menus can be accessed, such as the "Add Data" menu, which is useful for adding product data to the application system, the "Transaction" menu for entering data on buyers who have made transactions, and the "Report" menu which is useful for viewing All sales reports that have been input can then be printed in hard file/hard copy form. This computerized sales recording system that uses the macro Excel application at the Reglow by Bundami Distributor is very suitable for use because it will provide fast and accurate information regarding the process of recording financial transaction data that occurs and checking the stock of goods that are still available, without having to count first and can print detailed sales reports so that the function of printing these reports becomes clearer and makes archiving easier. In other words, it can save time, energy, and money. The system designed for this application is still categorized as simple because it is still based on a small scope; it only covers transaction recording and sales report data.

The sales recording application in this research can also reduce recording and calculation errors often made by humans (human error). Reglow by Bundami Distributors will also experience improvements in handling the sales process compared to the previous manual system using paper media. Controlling the recording of sales data can be considered more effective, and data security is more guaranteed with this system. Then, the difficulties in making reports manually can also be made easier and faster with this computerized system. The data processing in the proposed system is considered to be more guaranteed to be correct because the incoming data has first been checked for correctness and has been better controlled. In the sales recording application in this research, there are still weaknesses, namely, there is no feature to print sales notes and a menu to find permanent customer data and supplier data.

5. CONCLUSION

Based on after completing the process of designing the cash sales recording information system at the Reglow by Bundami Distributor, the conclusion from designing this cash sales information system is that with this information system, the Reglow by Bundami Distributor can record sales and monitor stock inventory more optimally. The system can also process transaction data and present it on the dashboard as information that can assist in cash sales activities. Data originating from source documents can be identified, namely by entering sales data and creating the required sales reports into the application system, so that it can simplify the financial reporting process at the Reglow by Bundami Distributor, which was previously done manually. The output of this research is an application that can display product sales data and remaining product stock and sales reports so that they can be reported to inventory staff for future stock planning.

Researchers also provide suggestions for future research to avoid errors or system errors when the application is being used. It is hoped that application makers will be able to regularly maintain and check the operating system, as well as check hardware and software and increase human resources. Apart from that, the sales information system does not yet provide a form for printing sales receipts. This gap can be researched further by adding a feature to print notes automatically and adapt them to the needs of the object being studied to make it easier for companies to manage the cash sales accounting information system in the future.

REFERENCES

Amin, M. Al, Sungkono, & Jaya, IMLM (2021). Determinants of implementation of MSME accounting in Yogyakarta. *Axiom Accounting Research Journal, 20*(2), 91–107. https://doi.org/10.29303/aksioma.v20i2.134

Arianti, BF (2020). The Influence of Income and Financial Behavior on Financial Literacy Through Investment Decisions as an Intervening Variable. *Journal of Accounting, 10*(1), 13–36. https://doi.org/10.33369/j.akuntansi.10.1.13-36

Biby, S., Asbar, Y., & Jufridar. (2023). The Analysis of the Green Economy Implementation on Sustainability of Small and Medium Enterprises in Lhokseumawe City. *Journal of Management and Business Economics, 24*(1), 31–37.

Dewi, NHU, & Nur'aini Rokhmania. (2021). Investment in Accounting Information Systems, Financial Performance and Productivity of Malmquist and IFR as Intervening in the Banking and Financial Industry. *Journal of Assets (Accounting Research), 13*(1), 63–71.

Halim, A. (2020). The influence of the growth of micro, small and medium enterprises on the economic growth of Mamuju Regency. *Scientific Journal of Development Economics, 1*(2), 157–172. https://stiemmamuju.e-journal.id/GJIEP/article/view/39

Divine, ME, & Jaya, IMLM (2020). The reality of obstacles of ias 41 listings (biological assets) for fishery and livestock MSMEs in East Java. Gorontalo Accounting Journal (GAJ, 3(2), 94–104.

Ismiwati, B., Chaidir, T., & S, IAP (2022). Empowering women traders through increasing literacy and financial inclusion in east Mataram district, Mataram district, and Mataram city. *Independent Abdimas Journal, 3*(2), 38–46. https://doi.org/https://doi.org/10.29303/independent.v3i2.234

Kesuma Jaya, MSA, Gumilang, P., Wati, T., Andersen, YP, & Desyani, T. (2019). Black Box Testing on the Decision Support System Application for Selection of Candidates for Civil Servants Using the Equivalence Partitions Technique. *Pamulang University Journal of Informatics, 4*(4), 131. https://doi.org/10.32493/informatika.v4i4.3834

Puspitawati, L., Hilmi, & Novitasyari, A. (2021). Organizational Factors on the Quality of Financial Applications in Insurance Companies Lilis. *ASET Journal (Accounting Research, 13(*2), 197–210.

Riski, AD (2022). Waterfall Model Analysis: Definition, Stages, Advantages and Disadvantages. https://osc.medcom.id/community/analysis-model-waterfall-pengertian-phase-kebesaran-dan-kekurangan-4352

Sugiyono. (2018). Quantitative, Qualitative, and R&D Research Methods. Alphabet.

Zakariah, MA, Afriani, V., & Zakariah, KM (2020). Qualitative, quantitative, action research, research and development (R&D) research methodology. Al Mawaddah Warrahmah Kolaka Islamic Boarding School Foundation.