

@is The Best : Accounting Information Systems and Information Technology Business Enterprise Volume 9, Issue 1 (2024) Pages 61-75 ISSN: 2252-9853 (Print) | ISSN: 2656-808X (Online) https://ojs.unikom.ac.id/index.php/aisthebest/index

Accredited Ranking 4th, SK Number: 105/E/KPT/2022 DOI: <u>https://doi.org/10.34010/aisthebest.v9i1.14109</u>

UI/UX Design for Point of Sale and Bookkeeping of Kasirmu Application (Case Study of MSMEs Actors in Cileunyi District, Bandung Regency)

Muhamad Tri Algiansyah

Department of Informatics Engineering, STMIK AMIK Bandung, Jakarta St. No.28, Kebonwaru, Batununggal, Bandung City, West Java, Indonesia, Postal Code 40272 Email: <u>algiansyah6@gmail.com</u>

ABSTRACT

Micro, Small, and Medium Enterprises (MSMEs) are important in the Indonesian economy. Although they have a very large role in the Indonesian economy the failure rate of MSMEs is not low, especially in the first year of business. This study aims to analyze the challenges faced by MSMEs in financial management and to design application-based solutions to overcome these problems. The study was conducted in Cileunyi District, Bandung Regency, involving two MSME actors who have implemented digital bookkeeping. The results of the study indicate that the main obstacle for MSMEs lies in the discipline of financial recording, and separation of personal and business finances. To overcome these challenges, a mobile-based application was designed that integrates Point of Sale (POS) and bookkeeping features. The POS feature allows MSME actors to manage transactions, stock, and sales reports automatically. Providing an online ordering web menu, allows for an alternative POS for online purchases. The design of the user interface (UI/UX) adopts a Design Thinking approach to ensure that the application is by user needs and preferences. The results of the study show that the features contained in the Kasirmu application are to the needs of MSME actors in the Cileunyi District.

Keywords: MSMEs, financial management, POS, bookkeeping, Design Thinking

Introduction

Micro, Small, and Medium Enterprises (MSMEs) are important in the Indonesian economy. MSMEs contribute more than 61.97% to the Gross Domestic Product (GDP) and absorb around 97% of national employment in 2020 [1]. Despite having a very large role in the Indonesian economy, the failure rate of MSMEs is not low, especially in the first year of business. Not a few are forced to close down due to various factors. One of the main factors that is a problem for many MSMEs is poorly planned financial management [2]. The process of producing something with inherent value via time and effort, financial, psychological, and social risks, and earning a living and personal fulfillment is the essence of entrepreneurship [3].

MSMEs actors still experience many basic problems, such as disciplined financial records, separation of personal and business finances, and good debt planning are the keys to the sustainability of MSMEs. Based on a study conducted by the U.S. Bank in 2020, around 82% of small businesses fail in the first 5 years due to poor cash flow management. No matter how small the scale of a business, the role of bookkeeping cannot be ignored [2].

Based on previous studies [4]–[6] consistently shows that most MSMEs in Indonesia do not have an adequate bookkeeping system or even do not record their finances systematically at all. Therefore, this study aims to analyze the problems related to bookkeeping faced by MSME actors in Cileunyi District and to design a point of sale (POS) and bookkeeping system with an optimal UI/UX design for the Kasirmu application as a potential solution.

Point of sale or abbreviated POS can generally be interpreted as a system that allows the transaction process to take place [7]. In the POS system, every sales activity will be recorded by the system as a profit obtained which will then be reduced by purchases made to increase the stock of

raw materials needed by the shop or company carrying out the transaction process [8]. The modern POS system not only includes sales recording, but also inventory management, financial reporting, and sales data analysis.

Cileunyi District in Bandung Regency, with a population of 176,993 people dominated by productive age (71%), has developed into an ideal place for the progress and development of MSMEs. Based on the Bandung Regency One Data Portal in 2023, there were 2,385 registered MSMEs in this sub-district. This figure shows a significant increase compared to 2019 with only 610 MSMEs, far exceeding the growth in neighboring sub-districts, some of which even experienced a decrease in the number of MSMEs.

Initial research results show that the urgent needs of MSME actors today prioritize solving fundamental problems in managing their business operations, especially in terms of bookkeeping. The majority of MSME actors, especially those managed directly by the owner, still face difficulties in recording financial transactions accurately and systematically. This is due to limited time and resources that are focused on daily operational activities such as production and sales. Therefore, before being able to maximize the potential of digital marketing, MSMEs need to first build a strong foundation in financial management. An effective business plan is essential to raising a company's performance. Four essential elements of the business plan must be taken out to create the business strategy model: objectives, operational procedures, conditions, and measurements [9].

To overcome this challenge, an application system is needed that is easy to use and has features that are relevant to the needs of MSMEs. The main features that need to be integrated into this system include Point of Sale (POS) and bookkeeping. POS feature by providing an online ordering web menu will be integrated with the Kasirmu application, helping MSME bookkeeping in recording daily transactions, managing stock, and creating online and offline sales reports automatically. IS consists of integrated physical and non-physical components that convert financial data into the financial information required for external stakeholders and managerial decision-making [10]. IS is used by many startups to get extra data that helps owners make decisions. In the end, this improves the startup's overall performance, profitability, and efficiency [11]. Making the correct choices can help a business succeed. Providing account information is a crucial function of financial reports for startups to attain commercial success [12].

UI/UX are two important concepts in application and website design that aim to increase user satisfaction. UI design is created by paying attention to user comfort visually. While UX is what users feel when using the application. An intuitive and easy-to-use UI/UX design will provide a positive user experience, so users are more likely to continue using the application and recommend it to others.

The importance of UI/UX is proven by research by the Nielsen Norman Group showing that 88% of users will leave a website or application if they experience problems with the design. Therefore, good UI/UX design is very crucial to ensure the success of the Kasirmu application. With an intuitive and easy-to-use design, MSMEs can quickly adopt this application and increase the operational efficiency of their business.

UI/UX design uses the Design Thinking approach, which is centered on the user, which is very relevant in UI/UX design. This process consists of five stages: Empathize, Define, Ideate, Prototype, and Test. This approach helps ensure that the solutions developed truly meet the needs and preferences of users, thereby increasing the effectiveness and efficiency of application use by MSMEs.

This study aims to design and develop a UI/UX Point of Sale system for online and offline sales and bookkeeping with a Design Thinking approach to improve the operational efficiency of MSMEs in Cileunyi District, Bandung Regency. Design Thinking is a human-centered research method and innovative approach to creatively solving complex problems. It focuses on understanding user needs, exploring ideas, and generating relevant and implementable solutions.

Design Thinking is often used in the development of products, services, or systems that require innovation based on real needs. The specific objectives of this study include identifying the needs and challenges faced by MSMEs, designing an intuitive user interface, developing key features, testing the UI/UX for MSMEs, and evaluating the effectiveness and efficiency of the system. With the results of this study, it is hoped that MSMEs can make better use of digital technology to facilitate their business operations and business sustainability. For both professionals and beginners, visual business process models are thought to be more suitable than textual models for search, recognition, and certain inference tasks [13].

Method

1. Empathize

This study involved direct interviews with two MSME actors in the food sector operating in Cileunyi District using a deliberate approach (purposive sampling) namely MSME actors. The respondent criteria were determined by the author, namely, respondents must be technology literate, familiar with cellphones, computers, and the internet, and able to access and search for information on websites [14]. The results of Empathize are as follows:

A. Seblak Prasmanan Capid

Mrs. Cahyani as a business owner has experienced dynamics in her business journey. Before entering the culinary world, she had run two businesses simultaneously (at the same time). However, the lack of an adequate bookkeeping system resulted in ignorance of the performance of one of her businesses which turned out to be a loss. This experience encouraged Mrs. Cahyani to implement a more comprehensive bookkeeping system in her culinary business, to monitor income and sales accurately and prevent similar incidents from happening again.

B. Ichi Mochi

Ichi Mochi is a typical Japanese mochi that is varied with various flavors. Packaged in special packaging, Ichi Mochi has established partnerships with several wet cake shops and student organizations. Mr. Gilang as the business owner said that his party needed a bookkeeping application that was specifically designed for micro, small, and simple businesses. The applications that had been tried previously were considered too complex and more suitable for medium to large-scale businesses. As a result, bookkeeping is currently done manually using personal finance applications, Microsoft Excel, and paper notes. Mr. Gilang, as the business owner, specifically needs features such as automatic profit calculation that can accommodate fluctuations in raw material prices, digital storage of purchase receipts, identification of raw material vendors who offer competitive prices, and management of a consignment system that includes recording accounts payable, sales, and remaining mochi stock in partner stores.

2. Define

After understanding the UMKM actors as users of Kasirmu through interviews, it's time to define the problem more specifically. At the define stage, previous findings are summarized and the most crucial problems are identified from the user's perspective. By focusing on the user, we can formulate a clear and relevant problem statement, so that the resulting solution can truly answer the user's needs.

A. Define Product Before Design

This stage aims to provide a deep understanding of the product to be built so that the subsequent design process can be more focused and effective. The Kasirmu application is a Point Of Sale (POS) and bookkeeping application that records offline and online sales, stock, raw materials, partners, and accounts receivable. Accounting is the communication of a company's financial data. Similar to a common language, accounting similarly uses symbols to convey

information. The use of these symbols is governed by certain guidelines [15]. This application integrates a conventional Point of Sale (POS) system with an online ordering web menu. Through this integration, it allows automatic recording of sales transactions, both offline and online, because conventional POS systems can only record offline sales. In addition, additional features such as recording stock, raw materials, partners, and accounts receivable also complement this system, thus providing a comprehensive solution for managing MSME businesses.

B. Affinity Diagram

To ensure that this application meets user needs, through affinity diagrams, analysis of the problems faced by MSMEs has revealed several key challenges, namely:



Figure 1. Problem idea

The image above shows the challenges faced by MSMEs. The next step is grouping and categorizing problems based on Point of Sale (POS) functions. The grouping scheme can be seen in Figure 2.

Muhamad Tri Algiansyah @is The Best: Accounting Information Systems and Information Technology Business Enterprise ISSN: 2252-9853 (Print) | ISSN: 2656-808X (Online)



Figure 2. Problem grouping

After grouping the problems, the next step is to formulate the problems specifically to then design solutions and determine the priority of the solutions.

C. Problem Statement

At this stage, the researcher writes the problem statement of each group of problems that have been created in the affinity diagram. At this stage, the problem statement is compiled by covering the background of a problem, the affected parties, and the impacts caused by the problem.

- 1) **Bookkeeping**, the lack of adequate bookkeeping records in previous businesses resulted in MSMEs not realizing the losses until the performance of their main business began to decline. As a result, both businesses experienced a simultaneous decline without any opportunity to make improvements to the business that first suffered losses.
- 2) **Sales**, recording online sales is one of the main challenges because it is beyond the reach of the bookkeeping application used, namely the Buku Warung application. As a result, recording requires more effort to input online sales data manually.
- 3) **Stock**, Current stock recording is less efficient, because in culinary businesses each product stock has its raw materials. Recording is still done manually outside the Buku Warung application which causes inefficient recording due to duplication of recording in two different places.
- 4) **Products**, There is no detailed product recording. Detailed recording to analysis can help increase or decrease the most preferred and least preferred products.
- 5) Accounts Receivable, Accounts receivable recording is less effective because it is recorded manually. As a result, records are often misplaced or even lost.
- 6) **Partners**, Partner data collection is still done manually. Effective continuous updates are needed to record product sales, remaining unsold products, and debts from a partner.

3. Ideate

A. How Might We

At this stage, researchers reformulate complex problems (Problem Statements) into openended questions. How Might We is a question that begins with the word "how" and ends with the word "we". This question is used to frame the problem faced by users and encourage the design team to generate new ideas that can solve the problem.

B. Brainstorming

This stage aims to generate creativity in formulating effective design solutions. At this stage, the main focus is on visual exploration, considering that functional solutions to the problems have been identified in the previous stage. The results of the brainstorming are as follows:

- 1) **Color Selection**, based on the background of the application which is a financial recording application, the color chosen is light blue. This color is used for the main button color and elements that are to be emphasized. Based on color theory, Goethe associates the color blue with pleasant feelings, while Itten associates it with confidence [16]. The alignment between these perceptions and the purpose of the Kasirmu application, which is to create an easy-to-use and reliable MSME financial bookkeeping application, is the basis for choosing blue as the main color.
- 2) **Font Selection**, Inter was chosen as the overall typography for titles and plain text, this typography was chosen because of several important points such as high readability, good contrast levels, and a neutral impression.
- 3) Easy interface design for everyone, Kasirmu's design style carries a minimalist concept.
- 4) **Visual hierarchy** is created clearly through the order of visual layout to help users focus on the most important information. The use of size, color, and position also distinguishes more important elements.

C. Benchmarking

At this stage, research is conducted on competitor products to become a benchmark. The application of benchmarking in product design can improve the quality of the final result by studying and adopting successful elements of competitor products. Benchmarking is carried out on similar applications, the Buku Warung application for bookkeeping and the Labamu application for POS applications. The Labamu application bookkeeping has a good layout and information hierarchy containing information on income, profit, and loss, percentage of transaction locations, and top 5 products that allow users to increase the presentation of the quantity of the best-selling products. The Labamu application has cashier features, debt books, stock management, raw material recording, income, expense, and profit and loss bookkeeping. Meanwhile, the Buku Warung income and expense recording feature can be a good reference for designing Kasirmu by being equipped with manual input of income and sales that allows recording that cannot be done automatically in the application, such as purchasing raw materials, etc. The Buku Warung application has features for recording sales, recording expenses, managing stock, and recording accounts receivable.

D. Information Architecture

Information Architecture is a science that aims to organize and organize information systematically so that it is easy to find, understand, and utilize by users. This discipline covers various aspects, from searching and categorizing to presenting relevant and contextual information, both in digital and physical environments, Figure 3.

Results and Discussion

1. Prototype

A prototype is an early physical or digital representation of a product designed to evaluate concepts, designs, and functions before it is finally developed. Through the creation of a prototype, the product can be continuously refined based on direct feedback from users. This ensures that the final product will be more relevant and useful to users. The prototypes that have been created are as follows:

- A. Mobile Application
 - 1) Authentication and forgotten password

Figure 4 is the first page that users access before finally entering the home page and reaching the features and functions of the Kasirmu application.

2) Home

Figure 5 is the main page that can be accessed after the user logs into the Kasirmu application. This page is the main page containing profit and loss information and access to the main features of the application. The arrangement of the feature hierarchy displayed on the home page is sorted with more important features and makes it more prominent than other features that are not more important. This can make it easier for users to find what they need to do. Arranging a feature hierarchy like this can help users save time by guiding users to face the main features more prominently than other features.

3) Online Menu

Figure 6 displays the online menu QR code for online ordering. The menu is automatically created according to the products entered by the user in the application. This page allows users to copy the link, share, and download the online ordering menu QR code.



Figure 3. Information Architecture

Muhamad Tri Algiansyah @is The Best: Accounting Information Systems and Information Technology Business Enterprise ISSN: 2252-9853 (Print) | ISSN: 2656-808X (Online)

:41 al 🗢 🔳	9:41 .ul 🗢 🔳
Nasuk	Daftar
omor Ponsel	Nama Pemilik
Masukan nomor ponsel	Masukan nama pemilik
issword	Nama Toko
Masukan password	Masukan nama toko
Lupa password?	Nomor Ponsel
	Masukan nomor ponsel
	Password
	Masukan password
	Konfirmasi Password
	Masukan password kembali
Masuk Belum punya akun? Dattar Fignure 4	Dattar Sudah punya akun? Masuk Login Page
9.41 nd *=	9.41
Kasirmu 🚷	Kasirmu 🔝
Selamat datang, Seblak Capidl	Sefamat datang, Seblak Capid!
Laba Rugi Lihat Laporan	Laba Rugi Lihat Laporan
Rp 309.000 ↑ 8% Keuntungan Dari kemarin	Rp 309.000 1 8% Keuntungan Dari kemarin
Aktivitas terakhir 🗸	Aktivitas terakhir 🦔
	Seblak Rp 10.000 Level 2 - kuah asin
Menu Online Cinduh dan bagikan menumut	Kerupuk Seblak Rp 14.000
Kelola Usabamu	2 Pak
Produk > Stok > + Produk Bare + Stok Baru	Menu Online Unduh dan bagikan menumu!
Pembukuan > Utang >	Kelola Usahamu
+ Transaksi Báru + Utang Baru	Produk > Stok >
	+ Produk Baru + Stok Baru
panduan berikut init	Pembukuan > Utang >
♠ ↔ 💼 🗆 8	+ Transoksi Baru + Utang Baru
Figure 5.	Home page
9:41 .nl 🗢 🖿	9:41 all 🕈 🔳
	1 mono comite
Bagikan Menu Online-mu Pelangan bisa scan kode QR atau buka link Menu Dolos langung dar pongan paga	Bagikan Menu Online-mu Pelanggan bisa scan kode QR atau buka link Menu Online langer und dat honger mende
	Bgkan Menu Online X
	f 🔽 🔕 🖪
https://kasirmu.com/umkm/seblak pr $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	Facebook Twitter WhatsApp Telegram
🛃 QR Menu	

Figure 6. Online menu page

4) Cashier

This page is used to calculate offline sales record sales for profit and loss reports and calculate stock reductions. Input cannot be as effective and fast as the barcode scanning system, because the products sold have limitations such as selling food per portion which certainly does not allow for barcodes. Manual input is done by selecting the product and its quantity, the system will take the product ID and purchase amount, allowing automatic recording of sales and stock reductions.

9:41		al 🗢 🔳	9:41	ad 🗢 🔳	9:41	.ul 🗢 🔳
Kasir			< Kasir		< Detail Pembelian	
Cari makan	ian atau minuman	Q	Cari makanan atau minuman	Q	2 item	Ubah
ategori Pro	oduk		Kategori Produk		Rp 10.500	- 1 +
Semua	Makanan	Minuman	Semua Makanan	Minuman	Es Teh	Ubah
ilih Produk	Ee Jonak		Pilih Produk		Rp5.500	- 1 +
1	Rp 6.500	Tambah	Rp 6.500	Tambah	Nama Pemesan	
	Seblak prasmanan		Detail Pembelian	×	Masukan nama pemesan	
	Rp 6.000	Tambah	Seblak Prasmanan		Jenis Pembayaran*	
	Seblak kwetiaw + pangs keju	it & bakso telor	Rp 6.000 - 15.000	- 1 +	Pilih jenis pembayaran	~
	Rp 10.000	Tambah	Lever		Detail Pesanan	15 000
12	Mie nyemek		Level 1		Lumpia Basah Spesial keju mozarella	15.000
	Rp 10.000	Tambah	Level 2		Total Pembayaran	Rp 30.000
	Pagrana cohok	-	Level 3			
	Rp 8.000	Habis	Kuah			
Total item	Pp 10 500	Tambah	Tambah Pesanan (Rp	13.000)	Total Pembayaran	Konfirmasi

Figure 7. Cashier Page

5) Orders

This page is intended to view online orders that come in through the Kasirmu store web menu. The online ordering web integrated with the Kasirmu mobile application, allows automatic recording of sales and stock reduction. This is a researcher's idea for an alternative to the limitations of the POS system which can only be used for offline sales and cannot yet calculate online sales.

) 9:41 	ull 🗢 🔳	9:41
< Detail Pesanan		Pesanan
3 item	asuk (7) Riwayat Pesanan	Pesanan Mas
, Lumpia Basah Spesial keju mozarella Level 2, kuah asin 1 Porsi	Lumpia Basah Spesial keju mozarella 1x, Seblak Prasmanan 1x, Basreng Cobek a.n algiansyah Rp 28.000	
Mie Nyemek Level 3 1 Porsi	Mie Nyemek, Seblak Pramasnan, Es Jeruk a.n algiansyah Rp 38.000	J J R
Nama Pemesan	Lumpia Basah Spesial keju mozarella,	Land Land Land Land Land Land Land Land
Algiansyah	Seblak Prasmanan, Basreng Cobek a.n algiansyah Rp 33.000	S a
Alamat Pemesan		R
Cluster Rasamala 2/12, Bumi Panyawangan Real Estate		
Bukti Pembayaran		
Detail Pesanan		
Tolak Konfirmasi Pesanan Pesanan	esanan Pembukuan Utang	Beranda Pes
Tolak Kor Pesanan Pe Orders Page	Resonan Pembukuan Utang Figure 8.	Beranda Pes

6) Product

This page contains products and raw materials that will later appear in the sales menu. Each product has raw materials in it and each raw material has a parent product that supports the addition of stock for each product.

9:41	all 🗢 🔳	9:41	ail 🗢 🔳
< Produk		< Tambah Produk	
		Foto Produk	
Produk	Bahan Baku		
Daftar Produk	+ Tambah Produk		
Lumpia Basah Sj mozarella Rp 10.000	pesial keju	Nama Produk ⁴	
Seblak Prasman Rp 6.000	an :	Jenis Harga*	~
Mie Nyemek Rp 10.000	:	Info produk Kategori Produk	
Basreng Cobek Rp 10.000	÷	Pilih kategori Topping (Bahan Baku)	Atur Kategori >
Es Jeruk Rp 6.500	:	 Bakso Sosis Toge 	
		Deskripsi Produk	

Figure 9. Product Page

7) Stock

This page contains raw material stock data that supports product stock data collection. On the stock detail page, users can organize and record stock and its prices from several vendors to obtain profit information from each product according to raw material price fluctuations.

9:41	.ul 🗢 🔳	9:41	all 🗢 🔳	9:41	ati 🗢 🔳
< Stok		< Kerupuk Seblak		< Tambah Stok	
		Stok Terkini	+ Tambah Stok	Nama Stok	
Cari barang	Q	Stok Terkin	1 Handari Otok	Kerupuk Seblak	
Stok		Kerupuk Seblak		Jumlah Beli	
Semua Stok	Stok Menipis	Pcs Tersisa		Cth: 2	
Kerupuk Seblak		Vendor	+ Tambah Vendor	Satuan Stok	
71	Tambah			Pak	~)
Pcs Tersisa		Indogrosir	Rp 32.000		Atur Satuan >
Bakso		Grosir Jaya	Rp 34.000	Harga Beli	
49 Butir Tersisa	Tambah			Masukan Harga Beli	
Sosis		Riwayat Pembelian	+ Catat Pembelian	Tempat Beli	
52 Pcs Tersisa	Tambah	2 Karung Indogrosir 26 Aquisutus 2024	Rp 32.000	Masukan tempat beli	
Mie		-		Vendor	
46	Tambah	3 Karung Grosir Jaya	Rp 34.000	Indogrosir	~)
Pcs Tersisa		26 Agusutus 2024			Atur vendor >
				Tanggal Beli	
				Pilih tanggal beli	#
				Foto Struk Pembelian	

Figure 10. Stock Page

8) Bookkeeping

This page is a report page for recording income, expenses, and profit and loss data for MSME actors. On this page, users can input manual income and expenses that occur outside the application, such as debt collection from buyers, purchasing raw materials, operational costs, etc. This is to facilitate the comprehensive recording of MSME actors.

9:41		9:41	al 🕈 🚍	9:41	at 🗢 🔳	9:41	al 🕈 🚍
Pembukuan		Pembukuan		< Tambah Catatan		< Tambah Catatan	
Hari Ini 7 Ha	ari 30 Hari	Hari Ini 7 Ha	ri 30 Hari	Pemasukan	Pengeluaran	Pemasukan Penge	oluaran
Toronkon Eilter		Toropkon Eiltor		Kategori Pemasukan		Kategori Pengeluaran	
rerapikan Pilter		relapidar Filter		Penjualan	Ň	Pembelian Stok	Ň
Pendapatan	Pengeluaran	Pendapatan	Pengeluaran	Produk Terjual		Stok Dibel	
Pendapatan	Lihat Laporan	Pengeluaran	Lihat Leporan	Seblak	>	Tahu (2), Kerupuk Seblak (2)	>
Rp 417.000	1 8%	Rp 108.000		Jumlah Terjual		Catatan	
52	1.8%	+ Tambał	n Catatan	Cth: 2		Masukan catatan	
Produk Terjaal	Dari kemaris	Riwavat Pengeluaran	Libat Laporan	Catatan			
+ Tamba	ah Catatan	Kerupuk Seblak	Ro 14 000	Masukan cetatan			
Riwayat Penjualan	Lihat Semua	2 Pák					
Seblak	Rp 10.000	Bakso 2 Kilo	Rp 34.000				
Lumpei Baseh	Rp 10.000	Slomay 3 Pek	Rp 21.000				
Level 4 - Kaah manis		Minyak Goreng Bimoli	Ro 39.000				
Basreng Cobek Level 3	Rp 8.000	2 Liter					
G 🛋 🧲		💮 🖆 🥌		Simpan		Simpan	

Figure 11. Bookkeeping Page

9) Account Receivable

This page is a record of accounts receivable, in which it records customer or partner debts. In the case of UMKM actors, Ichi Mochi partners with several cake shops to sell their mochi with a consignment system. When the mochi enters their partner's cake shop, it is recorded as a debt from the partner to them.

9:41	ati 🗢 🔳	9:41	uil 🗢 🔳	9:41	ul 🗢 🔳
Utang		Utang		Utang	
Utang Pelanggan Rp 56.000	Lihat Laporan 4 Total Utang	Utang Pelanggan Rp 56.000	Lihat Laporan 4 Total Utang	Jenis Pengutang*	~
Utang Terkini	+ Catat Utang	Utang Terkini	+ Catat Utang	Masukan nama pengutang	
Algiansyah Rp 12.000 29 Juli 2024	Lunaskan	Algiansyah Rp 12.000 29 Juli 2024	Lunaskan	Nominal Utang Rp Masukan nominal bayar	
AL Toko Kue Basah A Rp 130.000 28 Juli 2024	Lunaskan	AL Toko Kue Basah A Rp 130.000 28 Juli 2024	Lunaskan	Tanggal 28 Juli 2024	Ë
AL Toko Kue Basah B Rp 90.000 27 Juli 2024	Lunaskan	AL Toko Kue Basah B Rp 90.000 27 Juli 2024	Lunaskan	Catatan Masukan catatan	
Algi Rp 12.000 27 Juli 2024	Lunaskan	AL Algi Rp 12.000 27 Juli 2024	Lunaskan		
		Lunaskan	×		
		Menerima	Rp 12.000		
		Konfirm	asi	Simpan	
Beranda Pesanan	Pembukuan Utang				

Figure 12. Account Receivable Page

10) Partners

This page contains information on the list of partners which includes information on sales and losses from the consignment system. On this page, there is information on the list of products that are most in demand and less in demand in each partner which allows MSMEs to adjust the supply of the right products according to consumer interest.

9:41	al 🗢 🖿	9:41	.ul 🗢 🔲	9:41	ան 🗢 🖿
< Mitra		< Kantin STMIK AMIK		< Kantin STMIK AMI	к
Daftar Mitra	+ Tambah Mitra	Kantin STMIK	AMIK	Kantin STM	IK AMIK
Toko A Bermitra sejak 2024	:	Bermitra sejak 2	024	Bermitra sejal	k 2024
Kantin SMPN 1 Bermitra sejak 2024	:	Hari Ini 7 Ha	ri 30 Hari	Hari Ini 7	Hari 30 Hari
		Terjual	Tidak Terjual	Terjual	Tidak Terjual
Kantin SMA2 Bermitra sejak 2024	:	Pendapatan	Lihat Laporan	Kerugian	Lihat Laporan
		Rp 417.000	↑ 8% Dari kemarin	Rp 24.000	↓ 8% Dari kemarin
Kantin SMA1 Bermitra sejak 2024	:	52 Produk Terjual	↑ 8% Dari kemarin	5 Produk Tidak Terjual	↓ <mark>8%</mark> Dari kemarin
Kantin STMIK AMIK	:	+ Tamba	h Catatan	+ Tamt	oah Catatan
Careford Bermitra sejak 2024		Riwayat Penjualan	Lihat Semua	Riwayat Produk Tidak T	erjual Lihat Semua
		Seblak 40 Porsi	Rp 320.000	Seblak 2 Porsi	Rp 320.000
		Lumpai Basah 34 Porsi	Rp 290.000	Lumpai Basah 1 Porsi	Rp 290.000
		Basreng Cobek 38 Porsi	Rp 8.000	Basreng Cobek 2 Porsi	Rp 8.000

Figure 13. Partners Page

B. Website Application

This website contains a menu that allows buyers who usually buy online via WhatsApp to order through this website. An online ordering website integrated with the Kasirmu application, it allows automatic recording of online sales.

9:41	all 🗢 🗖	9:41	atl 🗢 💼	9:41	.al 🗢 🔳
Seblak Prasmanan Capic		Seblak Prasmanan	Capid	< Detail Pembelian	
	1	Selamat datang, di Seblak Prasama	an Capid!	2 item	
Cari makanan atau minuman	Q	Cari makanan atau minuman	Q	Seblak	Ubah
Kategori Produk		Kategori Produk		Kp 10.500	- 2 +
Semua Makanan	Minuman	Semua Makanan	Minuman	Lumpia Basah mozarella	Spesial keju Ubah
Pilih Produk		Pilih Produk		Rp 15.000	- 1 +
Es Jeruk Rp 6.500	Tambah	Es Jeruk	Tambak	Nama Pemesan	
		Detail Pembelian	×	Masukan nama pemesan	
Seblak prasmanan		Seblak Prasmanan		No WhatsApp	
Rp 6.000	Tambah	Rp 6.000 - 15.000	- 1 +	Masukan no whatsapp	
Seblak kwetiaw + pangsit 8 keju	& bakso telor	Level		Alamat Pemesan	
Rp 10.000	Tambah	Level 1	0	Masukan alamat pemesa	n
Mie nyemek		Level 2	0	Bukti Transfer	
Rp 10.000	Tambah	Level 3	0		
Basreng cobek	Habis	Kuah			
Total item Rp 10.500 2 item	Tambah Pesanan	Total item Rp 10.50 2 item	0 Tambah Pesanan	Total Pemba Rp 36	ayaran Konfirmasi 3.000 Pesanan

Figure 14. Online ordering menu web page

2. Test

A. Interface Aspect Test Results

The measurement of the interface aspect of the Kasirmu application uses the usability heuristic testing approach. Usability heuristics are broad standards used in testing to assess a product's user experience (UX), including software, applications, and websites. They help identify usability problems so they can be addressed before the product is finalized or released. The goal of these heuristics is to make user interfaces simple, effective, and pleasurable. Testing was carried out on 3 participants, namely 2 MSME actors as sellers and 1 general participant who often orders food online. The author acts as an evaluator and also involves users, in this case, the resource person, namely MSME actors in Cileunyi District. The resource person is Mrs. Cahyani from Seblak Prasmanan Capid and Mr. Gilang, the owner of the Ichi Mochi business. The role of the buyer is Mr. Rama from PT. Digital Agensi Nusantara. During the testing process, direct observations were made on how participants interacted with the application interface. The test results were analyzed using 10 aspects of heuristic testing according to Jakob Nielsen which are commonly used, namely: 1) Visibility of System Status; 2) Match Between System and the Real World; 3) User Control and Freedom; 4) Consistency and Standards; 5) Error Prevention; 6) Recognition Rather Than Recall; 7) Flexibility and Efficiency of Use; 8) Aesthetic and Minimalist Design; 9) Help Users Recognize, Diagnose, and Recover from Errors; 10) Help and Documentation.

B. Experience Aspect Test Results

Testing the user experience aspect of the Kasirmu application uses a qualitative approach. The methods used are interviews and observations. The functions tested are the stock recording function, transactions, and financial reports. The results of the Kasirmu application user experience aspect test based on the results of interviews and observations, it can be concluded that the Kasirmu application has great potential to help MSMEs manage their businesses more effectively and efficiently. Comprehensive features, ease of use, and the ability to integrate data from various sources are the main advantages of this application. The Kasirmu application has shown good potential in meeting the needs of MSMEs in the Cileunyi District. The intuitive interface design and comprehensive features have provided a positive user experience. However, there are still several aspects that need to be improved to achieve an optimal level of usability.

Conclusion

In line with the initial objectives of the study, the test results show that the UI/UX design of the Kasirmu application can improve the operational efficiency of MSMEs in recording transactions, managing stock, and creating financial reports automatically. Increase productivity by reducing the time needed to do manual recording outside the application and POS and bookkeeping applications with UI/UX designs and features that are by the characteristics and needs of MSME actors in Cileunyi District. Based on the research and design of the UI/UX design of this study, further research can develop similar applications into a more perfect system that MSME actors can use to improve the quality of MSMEs to a better level. The application can be enhanced by adding features from the unfulfilled usability heuristics aspect, such as providing FAQs.

References

- [1] G. Zakawali, "Proyeksi UMKM 2023, Jadi Tulang Punggung Ekonomi Nasional!," *berita usaha*, 2022. [Daring]. Tersedia pada: https://beritausaha.com/bisnis-ecommerce/proyeksi-umkm-2023/. [Diakses: 14-Nov-2024].
- [2] W. Goestiana, "Pentingnya Pencatatan Transaksi Bagi UMKM," *kumparan.com*, 2022. [Daring]. Tersedia pada: https://kumparan.com/beritaanaksurabaya/pentingnya-

pencatatan-transaksi-bagi-umkm-1zFNnz67WRy/full. [Diakses: 14-Nov-2024].

- [3] Supriyati *et al.*, *KEWIRAUSAHAAN ERA SOCIETY 5.0*. Kab. Serang Banten: PT Sada Kurnia Pustaka, 2023.
- [4] T. Hidayat dan G. Farell, "Rancang Bangun Sistem Informasi Point of Sale di Kedai Kopi," *Jurnal Pendidikan Tambusai*, vol. 7, no. 2, hal. 18372–18381, Agu 2023, doi: 10.31004/jptam.v7i2.9273.
- [5] J. Alexander, "Implementasi Point of Sales Berbasis Web Pada Usaha Olive Cafe," Jurnal Sistem Informasi dan E-Bisnis, vol. 2, no. 4, hal. 452–465, Jan 2021, doi: 10.54650/jusibi.v2i4.230.
- [6] D. Suryaningsih, "Pengembangan Sistem Point of Sale Pada Cv. Jaya Mandiri Keramik," *Jurnal Ilmu Data*, vol. 1, no. 2, 2021.
- [7] I. K. A. Bawa Wahyudi, I. G. N. A. Widana Putra, dan A. I. Datya, "Aplikasi Penjualan Point Of Sale (POS) Menggunakan Barcode Pada Koperasi Bina Kasih Sejahtera Berbasis Desktop Dengan Metode First in First Out (FIFO)," *Jurnal Teknologi Informasi dan Komputer*, vol. 3, no. 2, Feb 2018, doi: 10.36002/jutik.v3i2.292.
- [8] D. P. Sugumonrong, R. Ray, dan V. Victorio, "Perancangan Sistem Informasi Point Of Sales (POS) Berbasis Web Pada Rumah Makan Kokobop Chicken," *Information System Development*, vol. 4, no. 1, 2019.
- [9] Supriyati, H. Suharman, dan T. Supriadi, "Business strategy and use of information technology toward ASEAN MSMEs performance in the post-pandemic crisis," *Journal of Eastern European and Central Asian Research (JEECAR)*, vol. 10, no. 5, hal. 886–897, Sep 2023, doi: 10.15549/jeecar.v10i5.1438.
- [10] S. Supriyati dan R. Bahri, "Model Perancangan Sistem Informasi Akuntansi Laporan Keuangan Pondok Pesantren Berbasis SAK ETAP," @is The Best: Accounting Information Systems and Information Technology Business Enterprise, vol. 4, no. 2, hal. 151–165, Feb 2020, doi: 10.34010/aisthebest.v4i02.2749.
- [11] S. Supriyati, S. Mulyani, H. Suharman, dan T. Supriadi, "The Influence of Business Models, Information Technology on the Quality of Accounting Information Systems Digitizing MSMEs Post-COVID-19," *Jurnal Sistem Informasi*, vol. 18, no. 2, hal. 36–49, 2022, doi: 10.21609/jsi.v18i2.1141.
- [12] Supriyati, H. D. Yulianto, R. S. Bahri, dan M. A. R. Suherlan, "Transformation of Accounting Information Systems For Small Businesses Based on Social Environment," in International Conference on Business, Economics, Social Sciences, and Humanities - Economics, Business and Management Track (ICOBEST-EBM 2024), 2024, hal. 149–164, doi: 10.2991/978-94-6463-465-5_13.
- [13] Supriyati et al., Ekonomi Manajerial & Strategi Bisnis. Kab. Serang Banten: PT Sada Kurnia Pustaka, 2023.
- [14] M. Zainal, "Melek ICT, Apa Indikatornya?," Kompasiana, 2017. [Daring]. Tersedia pada: https://www.kompasiana.com/uaksena/5a0a5623fcf6814ed344a492/melek-ict-apaindikatornya. [Diakses: 15-Nov-2024].
- [15] W. Yadiati dan S. Supriyati, Filsafat Ilmu Akuntansi. Bandung: Prenadamedia Group, 2024.
- [16] A. Farantika, "Pengaruh Psikologi Kombinasi Warna Dalam Website," Andharupa, Jurnal Desain Komunikasi Visual & Multimedia, vol. 1, no. 1, hal. 45–54, 2015.