

## Web-Based Accounting Information System Design for Income Statements: a Case Study at Toko Amanah Kepanjen

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### ABSTRACT

The aim of this research is to offer an efficient business process modeling solution to address issues in preparing the income statement for Toko Amanah Kepanjen. This study is a Research and Development (R&D) project that employs the ADDIE method, which consists of Analysis, Design, Development, Implementation, and Evaluation stages. This method aids in designing a system that can identify and solve problems with a structured and systematic approach. The results indicate that the implementation of a web-based system is crucial to replace the existing manual system. The current manual system faces various issues, including difficulties in tracking revenue, inefficient data management, and the risk of human error in recording transactions. By implementing a web-based system, these issues can be effectively addressed through automation and data integration, thereby enhancing accuracy, efficiency, and transparency in the processes of booking and ready stock sales. The system also facilitates faster and more accurate reporting, and supports strategic decision-making based on reliable information.

## **INTRODUCTION**

A series of integrated business activities working together to achieve a company's goals constitutes a business process. These processes are tailored to the company's characteristics and environment. In today's global competition, new standards are continuously being developed, leading to intense rivalry among companies to enhance their performance. With the rapid advancement of technology, it should be leveraged, especially in the business field. Business processes conducted manually (traditionally) can negatively impact a company's effectiveness and efficiency in carrying out its operations. This situation exacerbates the ongoing increase in business competition.

Companies that continue to grow must create and maintain a competitive advantage by constantly improving their competitiveness. Kurniawati & Permadi (2011) argue that enhancing company performance can be achieved through the implementation of information technology in business activities, which can boost advantages and competitiveness. The implementation of information technology is expected to increase efficiency and productivity, improve data accuracy and precision, reduce the risk of human error, and facilitate management in making informed business decisions.

In decision-making, every business organization requires an information system tailored for the organization. Information systems are utilized as tools to enhance the efficiency and performance of a company. An information system is considered successful if it possesses high quality in system quality, service quality, information quality, and user satisfaction. These factors can significantly impact individual performance.

A well-designed accounting information system is expected to assist companies in managing their finances and producing credible financial reports, which are crucial for corporate decision-making. A company can be considered effective, efficient, accurate, and reliable if it operates with high precision. Therefore, companies must develop a robust accounting information system that can be utilized for daily operations. Technology-based information systems can generate accurate information to support a company's performance.

Profit and loss report applications can help businesses improve their operational efficiency. By using this application, sales processes can be automated, orders can be processed more quickly, and inventory can be managed more efficiently. Information about product inventory, sales, and orders can be well-integrated within a single platform, and profit and loss reports can be generated accurately. This can save time and labor, increase productivity, and reduce human errors.

In the business world, effective inventory management is essential to meet customer demand without overstocking or understocking. A profit and loss report application can facilitate real-time inventory checking, allowing businesses to easily track their stock, update the available quantity, and manage orders more efficiently. With inventory data recorded through the profit and loss report application, businesses can perform better inventory planning. They can observe demand trends, identify the most popular products, and appropriately

adjust their stock levels. This helps reduce unnecessary storage costs and avoid stockouts that can harm the business.

One of the advantages of a web application in an accounting information system for profit and loss reporting is its ease of access. In this case, creating a profit and loss accounting information system is highly beneficial for store owners as it allows users to access the application from anywhere without needing to install it first. Additionally, the web application is not limited to one or two systems; users can access it through commonly used devices and web browsers regardless of whether they use Windows, macOS, Linux, or mobile devices. A web-based application in a profit and loss accounting information system also saves storage space. Thus, users do not need to install the application on their devices, which would take up significant storage space. Users only need to access the application by visiting the appropriate web application site.

Toko Amanah is a trading company operating in the retail distribution of staple goods to customers. The problem faced by Toko Amanah is the traditional accounting information system, which requires significant time and effort to manage inventory and conduct transaction processes. Without an integrated system, the store has difficulty accurately tracking its inventory. This results in stock shortages or surpluses, leading to potential losses.

The shopping process implemented at the store has been conventional, where customers go to the sales admin, who then writes down the items purchased and sends this information to the warehouse department. This results in long queues when there are many customers. The conventional system can lead to human errors in calculations and take a long time to process, which in turn impacts the speed of service. This problem arises because all activities are still conducted manually, making them inefficient. Manual recording at Toko Amanah involves the cashier documenting purchased or ordered items on a receipt. Subsequently, the warehouse department records the issued inventory in the warehouse inventory book. At closing time, the sales and warehouse departments perform a check between the items sold recorded on the receipt copy and the inventory issued by the warehouse department as listed in the warehouse inventory book. The finance admin records the daily sales report in the sales report book. The warehouse admin compiles a summary of the required stock and then submits this report to the store owner. The issues faced by Toko Amanah significantly impact the business operations, as they involve the management of inventory components at Toko Amanah.

To address these challenges, it is crucial to design systems that simplify user interfaces and improve user quality of work life through business process modelling. This approach requires a deep understanding of business operations and collaboration with SME owners or managers (Ichdar et al., 2022). These systems should efficiently execute technical tasks while prioritizing user satisfaction (Hirschheim & Klein, 1994). With the rapid evolution of business and the digitalization landscape, organizations are increasingly focusing on service-oriented approaches and operational efficiency to enhance organizational agility (Deloitte, 2018; KPMG Insights, 2019). Therefore, accurate business processes serve as vital links between business operations and information technology (Ningtiyas et al., 2018). Effective and efficient business processes also elevate the quality of the organization's Accounting Information System (AIS), supporting decision-making, planning, execution, and activity oversight (Mudjahidin, 2004). Consequently, modelling sales product processes using Business Process Management (BPM) methodologies becomes essential.

Several studies have shown that applying Business Process Management (BPM) to business processes transforms manual operations into digital ones, particularly in managing cash receipts and disbursements. Modelling outcomes can serve as tools to pinpoint system needs and enhance the efficiency and effectiveness of cash receipt transactions at Hotel Mentari Karawang (Setiyani et al., 2022). However, research on business process modeling similar to that conducted at Toko Amanah is still limited. Therefore, business process modeling is crucial to address inefficiencies in the processes at Toko Amanah. Therefore, the objective of this study is to outline the design of business processes for cash receipt and disbursement cycles using BPM to resolve the specific issues faced by Toko Amanah. The aim is to identify challenges and propose tailored solutions that meet the hotel's requirements. Based on the analysis, the researchers will develop an Accounting Information System for cash receipt and disbursement that aligns with Toko Amanah's operational needs.

## **THEORETICAL OVERVIEW**

### ***Accounting Information System***

Khan (2016) defines an accounting information system as a system for collecting, storing, and processing financial data used for decision-making. This system utilizes modern information technology resources to track accounting activities related to technology. It is used to provide users with the financial information necessary for managing an organization. Accounting information systems are useful for companies and business entities in decision-making. This statement is reinforced by the view presented by Romney & Steinbart (2018:10), who describe an accounting information system as a system that collects, records, stores, and processes data to generate information used for decision-making. This includes people, procedures and instructions, data, software, information technology infrastructure, internal controls, and security measures. From this description, it can be concluded that an accounting information system is a system that processes data through activities of collecting, recording, storing, processing, and generating information used in decision-making by both internal and external parties.

### ***Micro, Small, and Medium Enterprises (MSMEs)***

Micro, Small, and Medium Enterprises (MSMEs) are business activities with the potential to increase job opportunities, significantly contribute to income distribution efforts, stimulate economic growth, and play a role in achieving national economic stability. MSMEs can refer to businesses operated by individuals, households, or small-scale enterprises. The classification of MSMEs depends on annual revenue limits, asset size, and the number of employees. Meanwhile, entities not classified as MSMEs or considered large enterprises are productive economic activities conducted by businesses with net worth or annual sales exceeding the medium-sized enterprise limits.

### ***The Development of Accounting Information System (AIS) in MSMEs***

Micro, Small, and Medium Enterprises (MSMEs) are expected to adapt and demonstrate high levels of creativity and innovation in line with current technological advancements. This is because the rapid development of technology strongly encourages MSMEs to be more responsive to environmental changes resulting from the impacts of technological and informational revolutions. The fast-changing environment necessitates accuracy and precision in decision-making. Accounting Information Systems (AIS) are responsible for analyzing and monitoring a company's financial condition. Acen (2019) states that the key factor influencing the success of SMEs is management control by the owner, such as maintaining regular business transaction records, which informs the owner about business performance and growth. This study was conducted to examine the relationship between Accounting Information Systems and the performance of SMEs in Nakawa, Uganda. The research findings indicate that AIS has a statistically significant relationship with company performance based on correlation analysis and survey design involving 144 samples. Therefore, SMEs require well-planned and well-managed AIS to effectively manage their most valuable information resources.

Different opinions are presented by Ahmad & Yusop (2021), who found that accounting system practices such as planning, control, and decision-making are moderately applied among SMEs in Kuala Lumpur. Many SMEs rarely or never use budgets in their organizational planning. This is surprising because planning plays a crucial role in competitive business strategy, significantly impacting organizational performance. Therefore, the government and relevant agencies need to conduct seminars on the importance of specialized accounting training for SMEs to ensure their sustainability and profitability. In the business world, Accounting Information Systems play a critical role in improving quality and reducing production costs, enhancing decision-making, and gaining a competitive edge. With the implementation of Accounting Information Systems, it is expected that SMEs will be able to compete with new technological innovations that save time and achieve sales and profitability targets.

### ***Business Process Management***

Business processes are a series of planned and sequential steps or activities designed to achieve specific business objectives. These processes involve transforming inputs into outputs through a series of organized steps. Business Process Management (BPM) encompasses a set of methods, techniques, and tools used to identify, discover, analyze, redesign, implement, and monitor business processes to optimize organizational performance (Sujanawati et al., 2021). Most businesses now utilize BPM to represent and model their business processes and daily activities. Business processes need to be correctly designed or modeled, and their execution must be supported by systems that can meet workload requirements and process resources (whether human or automated). According to Chapman (2017), there are two primary types of business process models: the 'as-is' model, which depicts the current situation, and the 'to-be' model, which outlines future goals and expectations for analyzing, testing, implementing, and improving processes.

### ***Business Process Modeling Notation***

Business Process Modeling Notation (BPMN) is an industry standard used for documenting and modeling business processes. BPMN provides a clear and consistent way to visually represent business processes, facilitating understanding and communication among all stakeholders within an organization. The primary goal of BPMN is to offer a notation that is accessible and comprehensible to everyone involved in the business world. BPMN depicts business process diagrams based on flowchart techniques, designed to create graphical models of business operations that include activities and control flows defining the sequence of work (Yohana, 2018).

### ***Inventory System***

Inventory systems are storage solutions used by companies for the goods they sell or use in their operations. All items referred to as part of the inventory system depend on the type of business (Mirajdandi et al., 2021). The inventory system provides a potential organizational structure and operational policies for managing and monitoring stock. Through an inventory system, it is expected that management can effectively oversee the ordering and receipt of the ordered goods.

### ***Product***

A product is anything that a producer offers to be noticed, requested, sought, purchased, used, or consumed by the market to satisfy specific needs or wants. A product is the result of a process or activity designed to fulfill consumer needs or desires. Generally, a product can be a physical good or a service that can be offered, sold, or used to meet consumer needs or satisfaction. Products include goods, services, experiences, events, people, places, ownership, organizations, information, and ideas.

### ***Warehouse***

Warehouses are essential for coordinating the distribution of goods, which arise due to imbalances between supply and demand. The imbalance between supply and demand leads to the creation of inventory, which requires space for temporary storage, known as a warehouse. Arwani (2009) explains that a warehouse has three main functions: storage function, customer service function, and distribution and consolidation function.

The storage function is the fundamental role of a warehouse, serving as a place for storing goods, whether raw materials, work-in-progress, or finished products. The customer service function involves receiving goods from manufacturers or suppliers and fulfilling orders from branches or customers, making the warehouse a focal point of logistics activities. The warehouse plays a critical role in ensuring product availability and reasonable order cycles. This system helps reduce costs by allowing periodic shipments from manufacturers, optimized to truck or box quantities. By storing inventory in certain quantities, it helps manufacturers manage fluctuating demand.

The distribution function positions the warehouse as an extension of sales and marketing, ensuring the delivery of products and information to customers

at the point of sale. This function arises due to transportation cost characteristics. Large-scale shipments are economically cheaper than small-scale ones. In some systems, distribution and consolidation become the primary functions of a distribution warehouse.

### *Sales*

Sales are activities conducted by sellers to sell goods or services with the expectation of earning profit from these transactions. Sales can be defined as the transfer of ownership rights of goods or services from the seller to the buyer (Mulyadi, 2008). According to Supramono (2015), the goal of sales is to generate profit from the products or goods produced by the manufacturer through effective management. Sales are a key aspect of the business lifecycle, helping companies generate revenue, retain customers, and grow sustainably. Success in sales depends not only on the individual skills of the salesperson but also on a thorough understanding of the market, customers, and the products or services being offered.

In practice, sales cannot occur without the involvement of individuals such as agents, traders, and sales staff. Selling goods and services to consumers generally falls into two main categories: cash sales and credit sales. Cash sales refer to transactions where payment is made immediately without involving a debt system. On the other hand, credit sales occur when the buyer is given time to pay a specified amount after receiving the goods or services. Revenue generated from sales includes the amount charged to the buyer in exchange for the goods delivered, and this amount is considered revenue for the company in question.

### *Income Statement*

The income statement serves as a measure of a company's success over a specific period, enabling entrepreneurs to assess future financial performance (Nurmalasari et al., 2019). The income statement records all revenues and expenses related to business operations during a specified timeframe. It includes all income and expenses recognized during that period. Income refers to the increase in economic benefits during the reporting period in the form of cash inflows, asset increases, or liability reductions resulting in equity growth not attributable to capital contributions. Expenses refer to the decrease in economic benefits during the reporting period in the form of cash outflows, asset reductions, or liability increases resulting in equity decline not caused by distributions to shareholders. According to the Financial Accounting Standards for Micro, Small, and Medium Entities (SAK EMKM), an entity's income statement may include accounts for revenue, financial expenses, and tax expenses.

## **METHODOLOGY**

The type of research conducted in this study is Research & Development (R&D). According to Sugiyono (2014), R&D is a basic research activity aimed at obtaining information about user needs (needs assessment), followed by development activities to produce and evaluate the effectiveness of the product.

The goal of R&D is to improve the quality of products or services, reduce production costs, enhance operational efficiency, and increase the competitiveness of the company.

Primary data is obtained through observation and interviews with the research subjects. The observation focuses on how sales transactions occur at the store and the related procedures involving the parties involved. Interviews are conducted with prepared questions related to the development of the sales website needed by the subjects. Secondary data for this research is acquired through documentation techniques and literature review to enhance theoretical understanding. These materials are crucial for facilitating the modeling of business processes using BPMN.

## **RESULTS**

Based on the analysis above, it can be concluded that there are three main factors causing sales issues at Toko Amanah, which affect both the warehouse operations and financial reporting. There is long queue of customers. Long queues can reduce customer satisfaction with the store's service, leading customers to potentially leave the queue and switch to competitors, which could result in a decrease in revenue. Another environmental factor is the loss of inventory. People factor, employees may forget to record transactions and struggle with tracking inventory availability. System factor, Employees manually record sales, out-of-stock items, and incoming stock, which can lead to data inaccuracies and risks of fraud or data manipulation by employees. Thus, this study aims to refine the depiction of current business processes (as is) into more effective and efficient processes (to be).

## **DISCUSSION**

### ***Business Process Optimization Analysis***

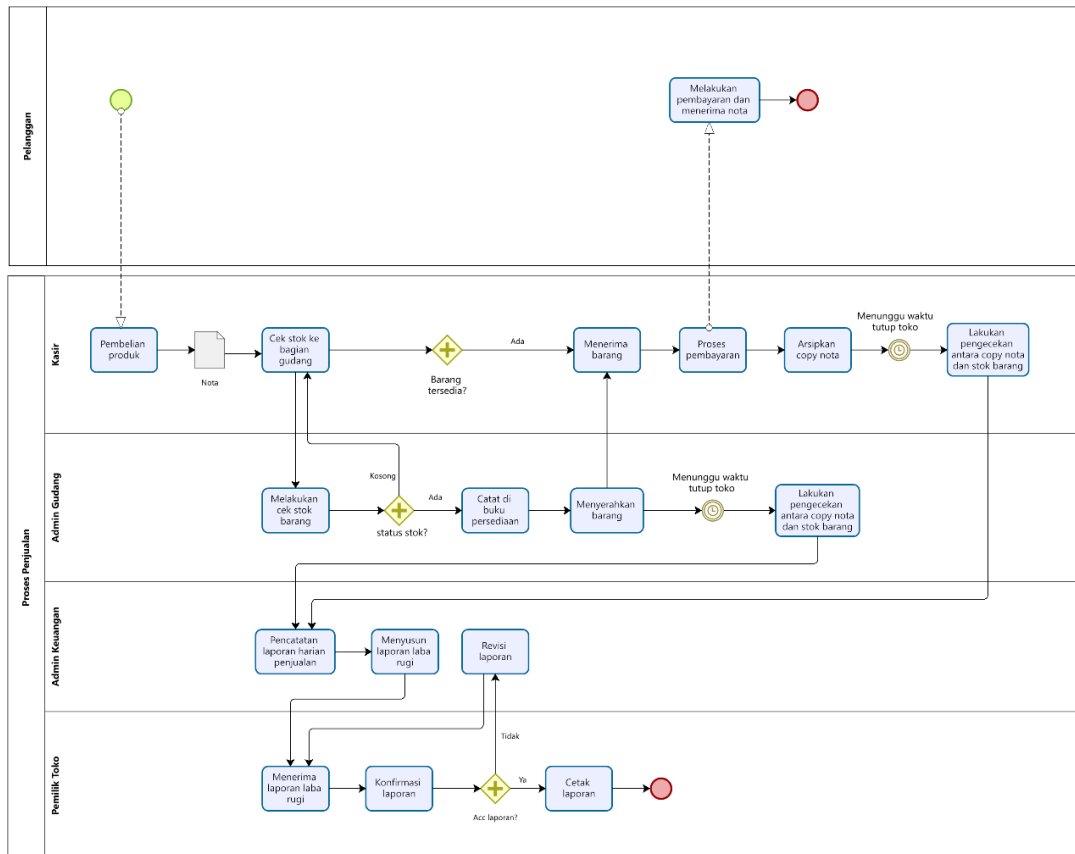
Based on the analyzed issues, there is a need for a business process change that can effectively address the shortcomings observed in the sales process and the preparation of the income statement at Toko Amanah. For sales transactions, it is crucial to use forms integrated with the administration system to expedite daily and monthly reporting processes. Previously, this process was handled manually—from recording transactions to obtaining approval for financial reports from the owner. The implementation of an accounting information system in the preparation of the income statement can reduce input errors, speed up recording and reporting, thereby enhancing the accuracy and organization of transaction processes through system redesign.

There is an increasing demand to develop a robust, reliable, cost-effective system that is responsive to both customer and employee needs. Therefore, optimizing business processes becomes essential for all components and stakeholders to synergize effectively, ensuring optimal performance. Business activities are not solely conducted by companies but also by individuals or groups working collaboratively to generate income from these activities (Osijo & Sudarmiati, 2023). Supported by the insights of philosopher and economist Adam Smith (1723–1799), who advocated for productivity gains through task

specialization and division of labor. The integration of computerized information systems into business processes is crucial for facilitating seamless information sharing among users who require it. Rapid changes in the business environment necessitate dynamic systems that continually provide value to consumers through products and services, while also being adaptable to evolving business conditions at an optimal cost (Kale, 2019).

**Business Process Modeling**

When designing a new business process, it's crucial to use a tool that can visualize the process flow, which is why Business Process Modeling Notation (BPMN) is selected. BPMN effectively illustrates the sequence of processes from beginning to end, outlining the roles of different components. This clarity ensures seamless information exchange and facilitates the implementation of cash receipt and disbursement processes. Figure 1 depicts the current cash receipt process (as is), while Figure 2 presents the proposed BPMN model (to be).

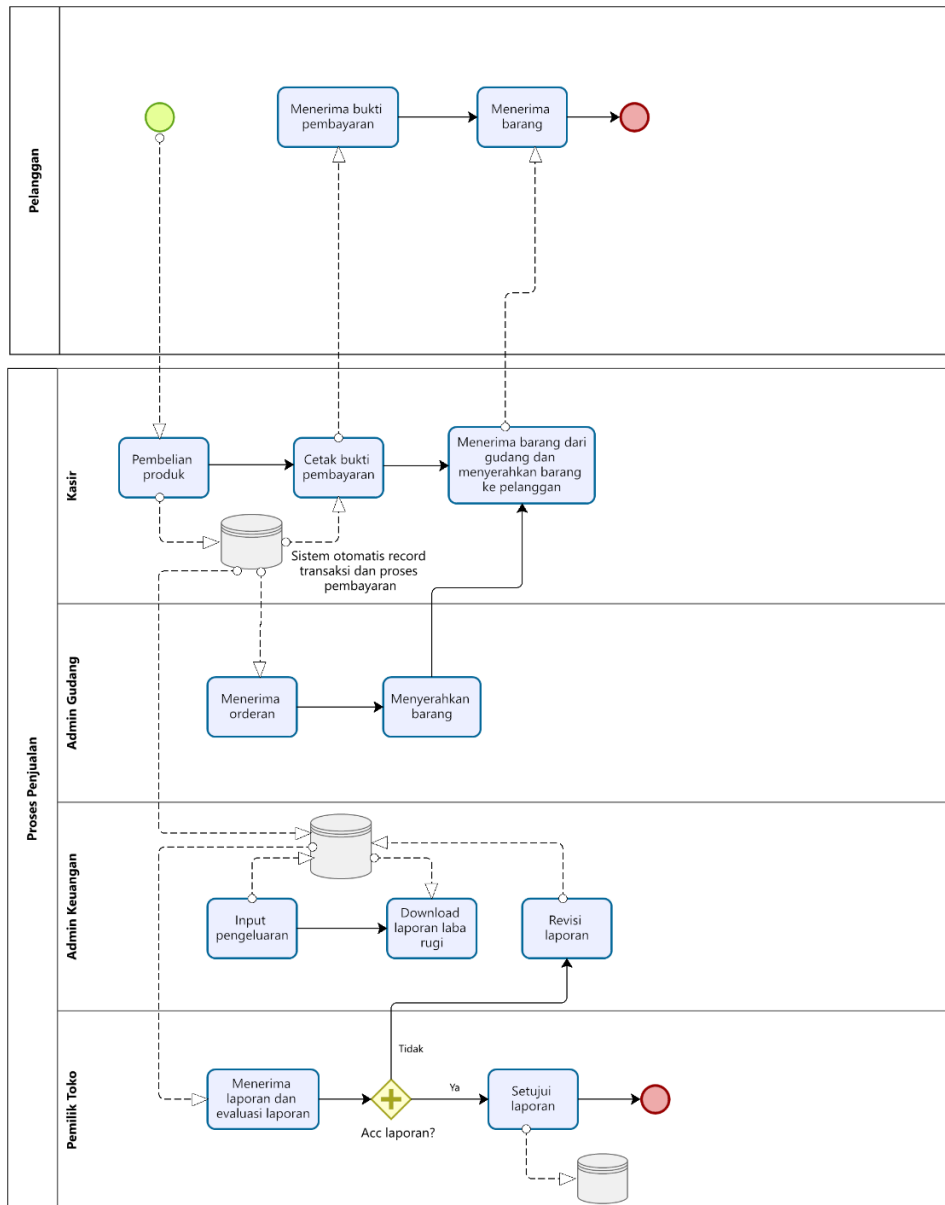


**Picture 1. Current Sales Process (as is)**

In Picture 1, the current business process implemented conventionally, and Picture 2, the proposed (to be) business process designed based on a website to improve the previous business process. The actors involved in both pictures are the same, consisting of customers, cashier, warehouse admin, finance admin, and shop owner. However, there are improvements in the business process

stages designed, making the business process more accurate, effective, and efficient.

In Picture 1, the business process begins with the customer making a purchase of a product. Then, the cashier creates a purchase receipt and checks the stock with the warehouse department. The warehouse department verifies the stock; if the item is available, it will be handed over to the cashier. The customer makes the payment, receives the purchased item, and gets the purchase receipt. Subsequently, a copy of the receipt is archived by the cashier. After the store closes, the cashier and the warehouse department will reconcile the archived purchase receipt copies with the stock levels. If everything matches, the finance admin will record the daily sales report. The finance admin then prepares the profit and loss report, which is submitted to the store owner. If the report is accurate, it can be printed.



Picture 2. Proposed Sales Process (to be)

In Picture 2, the business process starts with the customer making a product purchase. The system automatically records the transaction and processes the payment. When a product is purchased, the warehouse admin simultaneously receives the order and the cashier prints the payment receipt. After the goods are handed over by the warehouse admin to the cashier, the cashier gives the goods and the payment receipt to the customer. The finance admin then inputs the expenses into the system. The profit and loss report is automatically generated by the system, allowing it to be downloaded by the finance admin and viewed directly by the store owner. Once the report has been evaluated and deemed accurate, the profit and loss report can be approved by the store owner.

## **CONCLUSIONS AND RECOMMENDATION**

Based on the findings and discussions presented, the case of Toko Amanah Kepanjen illustrates that the new design of the Accounting Information System (AIS) for the Profit and Loss Report offers several solutions to the existing problems. This redesign simplifies the input of goods, the creation of transaction and inventory reports, and time savings, which can maximize employee performance. Furthermore, a well-structured and efficient business process is crucial for providing services that align with the established goals. To address issues arising from inefficient business processes, it is essential to analyze and design new business processes using management and business process notation, which serve to analyze, test, implement, and refine processes.

## **FURTHER STUDY**

Based on the researcher's firsthand experience during this study, several limitations were encountered. These can provide valuable insights for future researchers aiming to enhance their studies, as this research itself has identifiable shortcomings that warrant ongoing improvement in future research endeavors. Some of the limitations observed in this study include:

1. The research is focused on a single store, namely Toko Amanah, whereas there are many other stores that also require internal system improvements..
2. During the data collection process, information was provided only by those directly involved, namely the administrators of Toko Amanah.

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## **REFERENCES**

Acen, M. (2019). Accounting Information Systems and Firm Performance of Small. 17.

Ahmad, N. A., & Yusop, N. M. (2021). Penggunaan Sistem Perakaunan Berkomputer Di Kalangan Usahawan Perusahaan Kecil Dan Sederhana Di Sekitar Bandar Kota Bharu, Kelantan. *Jurnal Dunia Perniagaan*, 3(1), 19–29.

Alit, R. D., Aruan, M. C., & Rahadyan, A. (2020). Sistem Informasi Pelayanan Medis Pada Pasien di Klinik Insani Citeureup Berbasis Java. *Innovation in Research of Informatics (INNOVATICS)*, <https://doi.org/10.37058/innovatics.v2i1.1412>

Arwani, A. (2009). Warehouse Check Up. *Penerbit PPM*. 2(1), 16–21.

Fauzi, A., Akbar, M. F., Wulandari, U., & Syukron, A. (2022). Sistem Informasi Kasir Berbasis Website Pada Toko A-HA Emporio Bakery Kota Tegal. *Indonesian Journal Computer Science*, 1(2), 61–66. <https://doi.org/10.31294/ijcs.v1i2.1486>

Hasan, M. I. (2002). *Pokok-pokok Metodologi Penelitian dan Aplikasinya*. Jakarta Ghalia Indonesia.

Hermawan, R., & Fauzi, A. (2021). Perancangan Sistem Informasi Kasir Penjualan Barang Berbasis Website Metode Spiral Toko Warna. *Jurnal SIFO Mikroskil*, 22(2), 101–114. <https://doi.org/10.55601/jsm.v22i2.836>

Hidayat, A., Yani, A., Rusidi, & Saadulloh. (2019). Membangun Website SMA PGRI Gunung Raya Ranau Menggunakan PHP dan MySql. *Jurnal Teknik Informatika Mahakarya*, 2(2), 41–52.

Ismanto, I., Hidayah, F., & Charisma, K. (2020). Pemodelan Proses Bisnis Menggunakan Business Process Modelling Notation (BPMN) (Studi Kasus Unit Penelitian Dan Pengabdian Kepada Masyarakat (P2KM) Akademi Komunitas Negeri Putra Sang Fajar Blitar). *Briliant: Jurnal Riset Dan Konseptual*, 5(1), 69. <https://doi.org/10.28926/briliant.v5i1.430>

Julianti, M. R., Hakim, Z., & Ardiyan, T. (2021). Aplikasi Pedagang Sembako Online Berbasis Android. *Academic Journal of Computer Science Research*, 3(1), 11–15. <https://doi.org/10.38101/ajcsr.v3i1.330>

Kadarsih, K., & Andrianto, S. (2022). Membangun Website SMA PGRI Gunung Raya Ranau Menggunakan PHP dan MYSQL. *JTIM: Jurnal Teknik Informatika Mahakarya*, 03(2), 37–44.

Khan, H. F. (2016). Accounting Information System: The Need of Modernisation. *International Journal of Management and Commerce Innovations*, 4(1), 4-10.

Made, N., Sari, P., Made Estiyanti, N., Agung, A., Ardyanti, A. P., Sistem, P., Akuntansi, I., Primakara, S., Teknik Informatika, P., Tukad, J., No, B., & 135 Renon, T. (2019). Pengembangan Sistem Informasi Akuntansi Penjualan dan Penerimaan Kas Berbasis Web pada Koki Restaurant Sanur. *Jurnal Ilmiah Teknik Informatika Dan Sistem Informasi*, 8(3), 161-164. <http://ojs.stmik banjarbaru.ac.id/index.php/jutisi/article/view/389>

Nurdewanto, B., & Nugroho, F. A. (2020). Website “ E-Tokel ” Untuk Meningkatkan Penjualan. 2491-2496.

Nurmalasari, Anna, & Arissusandi, R. (2019). Rancang Bangun Sistem Informasi Akuntansi Laporan Laba Rugi Berbasis Web Pada PT United Tractors Pontianak. *Jurnal Sains Dan Manajemen*, 7(2), 6-14.

Oktrima, B. (2017). Pengaruh Profitabilitas, Likuiditas, dan Struktur Modal Terhadap Nilai Perusahaan (Studi Empiris: PT. Mayora Indah, Tbk. Tahun 2011 - 2015). 1(1), 98-107.

Putra, I. R. A., & Megawati, M. (2018). Rancang Bangun Sistem Informasi Akuntansi Berbasis Web (Studi Kasus: PT. KALBER REKSA ABADI). *Jurnal Sains, Teknologi Dan Industri*, 15(2), 98. <https://doi.org/10.24014/sitekin.v15i2.4673>

Rahmad, M. B., & Setiady, T. (2014). Perancangan Sistem Informasi Inventory Spare Part Elektronik Berbasis Web PHP. *Jurnal Sarjana Teknik Informatika*, 2(2), 10.

Rahmawati, D., Rokhmawati, R. I., & Perdanakusuma, A. R. (2017). Analisis dan pemodelan proses bisnis bidang pelayanan perizinan menggunakan bussiness process modelling Notation ( BPMN ) studi pada Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu Pemerintah Kota Malang. *Jurnal Pengembangan Teknologi Informasi Dan Ilmu Komputer*, 1(11), 1337-1347.

Rahmi, D., & Fiki, K. (2023). Perancangan Aplikasi Kasir Studi Kasus di Toko Hikmah. *Jurnal Teknik Informatika Dan Desain Komunikasi Visual*, 2, 63–69. <https://jfik.uniss.ac.id/index.php/journals/article/view/47/29>

Sahi, A. (2020). Aplikasi Test Potensi Akademik Seleksi Saringan Masuk LP3I Berbasis Web Online menggunakan Framework Codeigniter. *Tematik*, 7(1), 120–129. <https://doi.org/10.38204/tematik.v7i1.386>

Shahriari, S., Mohammadreza, S., & Gheiji, S. (2015). E-Commerce and Its Impact on Global Trend and Market. *International Journal of Research GRANTHAALAYAH*, 3(4), <https://doi.org/10.29121/granthaalayah.v3.i4.2015.3022> 49–55.

Sharma, G., & Linjuan, W. (2014). Ethical Perspectives on E-Commerce: an Empirical Investigation. *Internet Research*, 24(4), 414–435.

Sugiyono. (2014). *Metode Penelitian Kuantitatif, Kualitatif dan R & D*. Alfabeta.

Sugiyono. (2019). *Metode Penelitian & Pengembangan Research and Development*. Alfabeta.