

Business Processes for Basketball Court Rental and Ready Stock Sales Through Accounting Information System: a Case Study of Hok-Kiat Malang Basketball Club

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ARTICLE INFO

Keywords: Accounting Information Systems, Business Process Modelling, Web-based System

Received : 14, July

Revised : 28, July

Accepted: 29, August

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ABSTRACT

The aim of this research is to offer an efficient business process modeling solution to address issues in the booking and ready stock sales processes at Hok-Kiat Malang Basketball Club. 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

The rapid advancement of technology today allows people to access information anywhere quickly and efficiently. In companies, the development of information technology helps them carry out all activities efficiently and effectively (Lestari, 2022). One application of this technology is the use of web-based systems that function to provide information to the public (Chandra & Poerbo, 2019). A basketball club is an organized group of athletes and staff who participate in basketball games. The success and sustainability of a basketball club are often closely related to financial aspects. Along with technological advancements, sports clubs, including basketball clubs, are increasingly relying on information systems to manage their operational aspects. In Malang City, many basketball clubs still do not use accounting information systems in their business processes, one of which is the "HK" Basketball Club. The income of the HK Basketball Club can come from court rentals, merchandise sales, group or private basketball course services, and other sources of income.

The problem faced by the HK Basketball Club is difficulty in tracking income. Without an integrated system, the HK Basketball Club struggles to accurately track where the income comes from. This can disrupt budget planning and make it difficult to make accurate financial decisions. Additionally, the club has difficulty presenting financial information transparently, which can hinder management in making strategic decisions based on accurate financial data. Manual accounting processes also increase the risk of human error. Incorrect data entry or calculation errors can lead to inaccurate financial information and harm the club's credibility. Without a supporting system, manual processes and lack of integration between parts of the club can result in a lack of operational efficiency, ineffectiveness in identifying, assessing, and managing potential risks, and also increase the time required to complete administrative and accounting tasks.

Several previous studies have been conducted to address issues related to accounting information systems. The study by Rosiska & Nopiana (2017) designed a web-based accounting information system implemented at PT Sekumbang Permata Engineering to resolve problems related to the lengthy process of renting ships and the inaccurate recording of transactions and company activities. The results of this study indicate that the implemented web-based accounting information system provides ease for renters in making rentals and facilitates system users in decision-making.

The study by Serly & Susanti (2021) analyzed the accounting information system at UMKM Toko 168 to address recording issues, where the store had been recording cash transactions manually and had not conducted physical stock checks for a long time. This resulted in the owner being unaware of the business's profits or losses, and the lack of physical stock checks posed a risk of stock loss or damage. The study results indicated that the creation of an accounting information system application could manage and resolve existing problems. The owner could accurately determine the business's profit or loss, thereby making informed decisions about the future business prospects, and

partners could also check stock and identify which items are selling and which are not.

The study by Chandra & Poerbo (2019) at PT Lia Central Utama addressed issues related to the implementation of manual processes in recording company finances using Microsoft Excel. Detailed calculations and accounting reports were still unavailable, making it difficult for the central company to monitor financial developments. The results of this study explained that the system was developed to match the company's business processes, from revenue to expenses, including detailed operational costs. This system can help the company record daily to monthly revenue and other income, record company expenses such as operational costs, record purchase transactions and debt repayments, view monthly accounting reports, and print company accounting reports according to the monthly period.

The study by Miftahurrohman & Dewi (2021) designed a mobile-based accounting information system implemented at UMKM Barokah Rowosari to address issues related to improper transaction recording due to the limited knowledge of the available human resources. The results of this study explained that the implemented mobile-based accounting information system helps facilitate financial transaction management, produces financial reports, and makes it easier for users to understand the flow of financial transaction management.

The study by Hidayat & Faisal (2019) designed and developed a web GIS-based parking lot rental information system to address issues related to the proliferation of vehicles frequently parking on the roadside and in accordance with Regional Regulation No. 5 of 2014 concerning transportation, which regulates parking that obstructs roads, often causing congestion. Security often has to remove illegally parked cars, and residents find it very difficult to find parking spaces close to where they live. The results of this study explained that in areas where a computerized system has been implemented, it is easier for users to obtain information about parking spaces. With information about parking lot rentals available in the system, landowners find it easier to manage and control parking lots and also to record transactions that occur.

To address these challenges, it is important to design a system that simplifies the user interface and enhances the quality of work life for users through business process modeling. This approach requires a deep understanding of business operations and collaboration with SME owners or managers (Ichdar et al., 2022). The system must perform technical tasks efficiently 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 a crucial link between business operations and information technology (Ningtiyas et al., 2018). Effective and efficient business processes also improve the quality of the organization's Accounting Information System (AIS), supporting decision-making, planning, implementation, and supervision of activities (Mudjahidin,

2004). Consequently, modeling the sales product process using the Business Process Management (BPM) methodology becomes important.

Research on modeling the process of field rentals and ready-stock sales similar to that conducted at the HK Basketball Club is still limited. Therefore, business process modeling is crucial to address inefficiencies in the business processes at the HK Basketball Club. The aim of this research is to outline the business process design for the field rental and ready-stock sales cycle using BPM to address specific issues faced by the HK Basketball Club. The goal is to identify challenges and propose tailored solutions that meet the club's needs. Based on this analysis, the researcher will develop an Accounting Information System for field rentals and ready-stock sales tailored to the operational needs of the HK Basketball Club in Malang.

THEORETICAL REVIEW

Accounting Information System

According to Bodnar and Hopwood (2012), an accounting information system is a collection of resources designed to transform financial data and other data into information. The information generated will be used in various forms for decision-making purposes. According to Zamzami, Nusa, & Faiz (2021), an accounting information system is an organizational instrument that is part of the Information Systems and Technology (SIT) designed to assist in the management and control of a company's economic-financial aspects. The information produced by the accounting information system will be used by decision-makers to formulate decisions, both technical and non-technical. Essentially, an AIS is a subsystem of the MIS that manages transaction data from all existing activities. The information provided by the AIS is related to the financial results of organizational transactions.

Business Processes

Most of the literature on the definition of business processes emerged since the 1990s, with many authors articulating their own versions but with the same underlying meaning: directing business processes towards specific goals and highlighting particular aspects. Many researchers use concepts such as activities, sequence, inputs, and outputs to describe business processes. Havey (2005) defines a business process simply as a step-by-step rule set specifically designed to solve business problems. Other prominent definitions consider business processes from different perspectives, where they are described as composed of interconnected elements to process inputs, the process itself, input transformation or workflow, human and computerized resources, and outputs (Agerfalk, Goldkuhl, & Cronholm, 1999; Becker, Kugeler, & Rosemann, 2003; Fan, 2001; Lonchamp, 1993; Saxena, 1996).

This indicates that most definitions share a similar meaning, with significant differences lying in the emphasis on specific aspects of business processes. For instance, Agerfalk et al. (1999) focus on the need for activities to be structured and organized in a specific way within business processes. Castellanos, Casati, Dayal, & Shan (2004) and Fan (2001) emphasize the goal-oriented nature of business processes. Davenport & Short (1990), Gunasekaran

& Kobu (2002), and Hammer & Champy (1993) define business processes with a customer-oriented approach, while Irani et al. (2002) shift the focus to the need for clear inputs and outputs. Völkner & Werners (2000) argue that there is no universally accepted definition of business processes due to their discussion across various theoretical disciplines.

Despite the variety in definitions, four main features of any business process can be identified: specific identifiable inputs, a set of clearly definable tasks or activities performed in a specific sequence, involving both computerized and human resources, and producing specific outcomes that create value for customers.

Business Process Management

Business Process Management (BPM) is a framework used to manage a company's business processes optimally. This framework helps in assessment and evaluation by maximizing the effectiveness and efficiency of the organization. Through continuous and ongoing assessments, BPM can assist in identifying problems more easily and addressing them accurately. Another goal of implementing this framework is to predict potential future issues so that management can anticipate them. Thus, BPM becomes a very useful tool for enhancing the company's value (Zuhaira & Ahmad, 2021).

Rental

Rental, derived from the word "sewa" (rent), refers to a sum of money or goods paid to the owner by the user as compensation for the rental service (Jihadi, 2017). Rental can also be understood as an agreement where one party commits to provide goods for a specified period in exchange for payment from the party who agrees to the payment (Dimas et al., 2019). According to Septiani et al. (2019), rental is an agreement in which the lessor grants the lessee the right to use an asset for a period of time that has been agreed upon. In return, the lessee makes payment or a series of payments to the lessor.

Cash Receipts

Cash receipts refer to cash received by a company, whether in the form of cash or negotiable instruments that can be immediately used, originating from company transactions, cash sales, debt repayments, or other transactions that increase the company's cash (Esteria et al., 2016). According to Panjaitan & Ilhamiyah (2020), cash receipts are cash transactions that result in an increase in the company's assets in the form of cash.

Cash Expenditures

According to Mujilan (2012), cash expenditures are events related to the distribution of goods or services to other entities and the collection of payments. According to Panjaitan & Ilhamiyah (2020), cash expenditures are financial transactions that result in a decrease in the company's cash assets. Cash expenditures are recorded using electronic cash expenditure forms based on supporting transaction evidence such as goods receipt evidence, purchase

orders, and others, and then recorded by the computer through the cash expenditure journal. Cash expenditures resulting from operating expenses such as interest and exchange rate differences are recorded in the memorial. In a company, cash expenditures are frequent transactions.

Business Process Modelling Notation

BPMN (Business Process Model and Notation) not only establishes the syntax of processes but also details the flow of messages and information between participants in a process. The BPMN modeling approach provides an efficient way to ensure that processes are clearly defined and easily followed. Because BPMN is expressive, it allows for business process modeling in various ways. BPMN, as a graphical notation, was developed to facilitate communication among various stakeholders, such as end-users, business experts, software developers, and workflow modelers, involved in design and development. BPMN features flexible syntax, allowing for business process modeling at different levels. This includes mapping from a high-level business perspective to the detailed level required in executable models (Weske, 2012). The primary goal of BPMN is to provide a standard notation that is easily understandable by all business participants. Thus, BPMN can create a standardized bridge to close the gap between business process design and process implementation. The language used in BPMN enables all parties involved to clearly, completely, and efficiently communicate the processes within the organization (Monakova, 2012).

METHODOLOGY

This research uses a qualitative method with a case study approach to design business processes for an object experiencing issues with its previously implemented business processes. The qualitative method is considered more useful for broadly identifying problems, chosen for its holistic view of reality (as a unified whole), dynamic nature, and the lack of separation into research variables (Sugiyono, 2019). The object used is the Hok-Kiat Basketball Club in Malang, which operates in the sports field with a focus on addressing inefficiencies in the field rental cycle and ready-stock sales cycle.

The data sources required to support this research include primary and secondary data. Primary data is obtained from field observations of the Hok-Kiat Basketball Club in Malang and interviews with employees directly involved in the field rental cycle and ready-stock sales cycle. Understanding and identifying the existing business process flows, including field rentals, ready-stock sales, operational activities, and the parties involved, are conducted during direct observation. Secondary data is collected through literature reviews from the internet, journal articles, and books related to business process management, as well as documents belonging to the Hok-Kiat Basketball Club, such as field rental data, ready-stock sales data, and sales reports. Business process management materials are needed to facilitate business process modeling using BPMN.

RESULTS

Based on the analysis above, several factors contributing to revenue reporting errors at the Hok-Kiat Basketball Club in Malang have been identified. Without an integrated system, the HK Basketball Club struggles to accurately track the sources of its revenue. This can disrupt budget planning and precise financial decision-making. Additionally, the club has difficulties in presenting financial information transparently, which complicates management's ability to make strategic decisions based on accurate financial data. Manual accounting processes also increase the risk of human error. Incorrect data entry or calculation errors can lead to inaccurate financial information and jeopardize the club's credibility. These factors can be better managed through a structured and more efficient business process transformation using technology, thereby eliminating manual tasks. This approach aims to minimize data errors and simplify reporting. Specifically, the development of a website for inputting transaction data related to reporting can reduce data errors. Therefore, this research aims to refine the current business process (as is) into a more effective and efficient process (to be).

DISCUSSION

Business Process Optimization Analysis

Based on the business process modeling that has been conducted, several solutions have been provided to address the issues in both field rentals and ready-stock sales. It is crucial to implement features that assist in identifying types of cash receipts, allowing staff to enter and consolidate comprehensive information. This form should be integrated with the administration system to expedite daily and monthly reporting. Previously, this process was handled manually. The implementation of an effective field rental and goods sales system will trigger a positive cascading effect, reducing errors, accelerating recording and reporting, and thus improving the accuracy and organization of the hotel's transaction processes through system redesign.

There is an increasing demand to develop robust, reliable, and cost-effective systems that are responsive to the needs of customers and employees. Therefore, optimizing business processes is crucial to ensure that all components and stakeholders can synergize effectively to achieve optimal performance. Business activities are not only carried out by companies but also by individuals or groups working collaboratively to generate revenue from these activities (Osijo & Sudarmiati, 2023). Supported by the insights of philosopher and economist Adam Smith (1723–1799), who advocated for increased productivity through task specialization and division of labor. The integration of computerized information systems into business processes is essential for facilitating smooth information exchange among users who need it. Rapid changes in the business environment require dynamic systems that continuously deliver value to consumers through products and services, while also adapting to evolving business conditions at optimal costs (Kale, 2019).

Business Process Modeling

When designing a new business process, it is important to use tools that can visualize the process flow, which is why Business Process Model and Notation (BPMN) was chosen. BPMN effectively describes the sequence of processes from start to finish, detailing the roles of various components. This clarity ensures smooth information exchange and facilitates the execution of the field rental and ready-stock sales processes. Figure 1 illustrates the current business process for field rentals (as is), while Figure 2 presents the proposed BPMN model (to be).

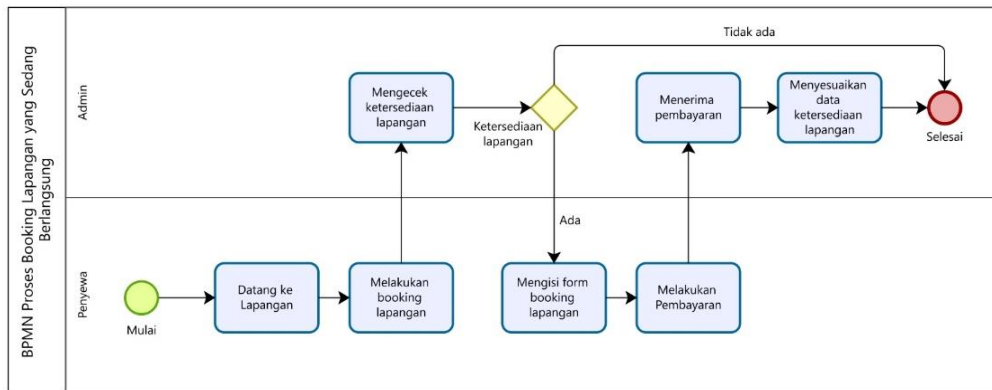


Figure 1. Business Process for Basketball Court Rental (as is)

Figure 1 represents the current business process related to the field rental information system. The renter arrives at the facility to make a booking. The admin then checks the availability of fields for rent. If a field is available, the renter fills out the field booking form and makes the payment to the admin. After receiving the payment, the admin records it to update the field availability data.

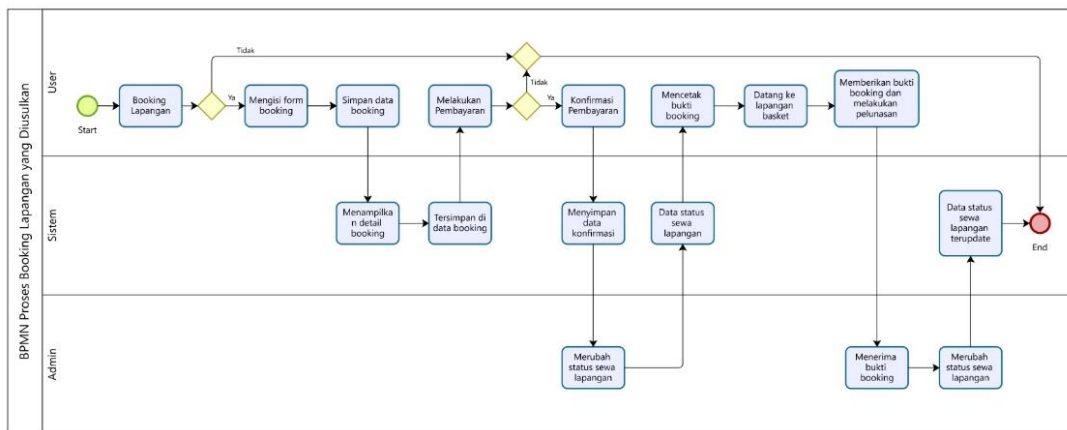


Figure 2. Business Process for Basketball Court Rental (to be)

Figure 2 represents the proposed business process related to the field rental information system. The renter checks the availability of fields displayed on the website. If the renter decides to proceed with the booking, they fill out the booking form. The completed booking form is automatically displayed and stored by the system. If the displayed form is correct, the renter makes a down payment and uploads the transfer proof. After the transfer proof is uploaded and confirmed by the admin, the admin updates the status of the rented field. On the day the renter will use the field, they must print the booking proof to

present to the admin and settle the remaining payment, either in cash or electronically. After receiving the payment, the admin updates the status of the rented field, and the renter can then use the field.

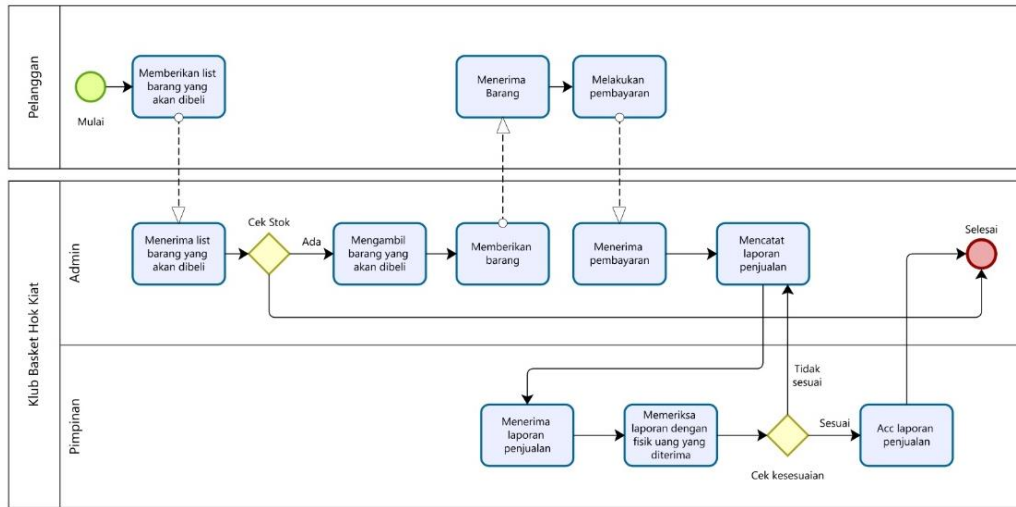


Figure 3. Business Process for Ready-Stock Sales (as is)

Figure 3 represents the current business process related to the ready-stock sales information system. The buyer provides a list of items they wish to purchase to the admin. Upon receipt, the admin checks the stock of the items requested by the buyer. If the stock is available, the admin retrieves the items and gives them to the buyer; if the stock is not available, the buyer cannot proceed with the purchase. After receiving the items, the buyer makes the payment to the admin, either in cash or electronically. Once the payment is received, the admin records the transaction in the sales report. The completed sales report is then given to the manager to verify if the sales report matches the physical cash received. If the sales report and the physical cash are in agreement, the manager approves the report. If there is a discrepancy between the sales report and the physical cash, the admin must recheck and correct the financial report.

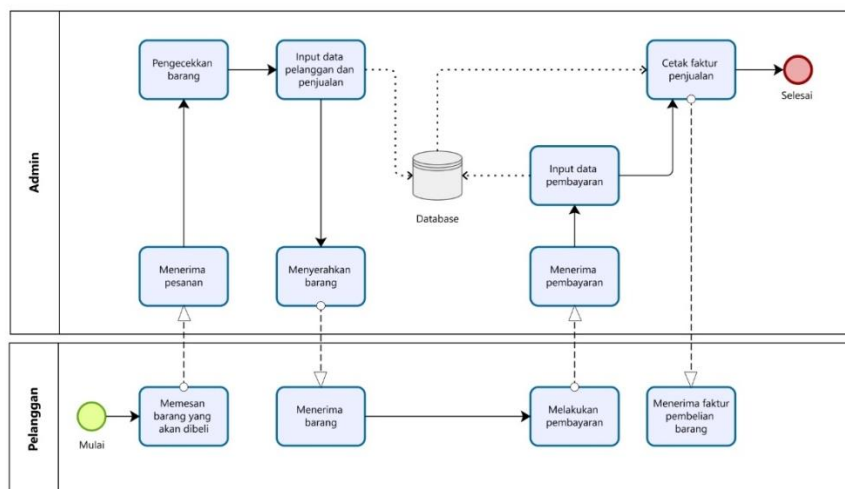


Figure 4. Business Process for Ready-Stock Sales (to be)

Figure 4 represents the proposed business process related to the ready-stock sales information system. The buyer places an order with the admin. The admin then checks the availability of the items through the system. If the items are available, the admin inputs the customer and sales data into the system. The items are then retrieved and given to the buyer, who makes the payment either in cash or electronically to the admin. After receiving the payment, the admin inputs the payment data into the system, and an invoice is automatically generated by the system. The invoice is then printed and handed to the buyer as proof of purchase.

CONCLUSIONS

Based on the results and discussion provided, it is evident that the redesign of the current business processes for field rentals and product sales, leveraging web-based systems and converged Accounting Information Systems (AIS), offers several solutions to address the issues faced by Hok-Kiat Malang basketball club. This redesign separates cash handling for field rentals and product sales, each with its unique characteristics. Moreover, a well-structured and efficient business process is crucial for delivering services that align with the set objectives. To address problems arising from inefficient business processes, it is important to analyze the new business processes using management and business process notation, which helps in analyzing, testing, implementing, and refining processes.

FURTHER STUDY

The research focuses solely on addressing the problems of the basketball club that are subjective from the club's perspective. Problem-solving prioritizes urgent issues that require resolution, specifically in the field rental and ready-stock sales stages. Therefore, the solutions are limited to these areas of rental and sales, considering the urgency of the problems occurring on the ground.

ACKNOWLEDGMENT

I express my gratitude to the research team for their participation in this study. We are grateful to the university and associates for their unwavering support in seeing this project through to completion.

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