



Modeling of Accounting Information Systems in Companies Implementing the Sharing Economy Business Model

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ABSTRACT

The purpose of this study is to offer modeling of the Accounting Information System, especially the payroll system, using the concept of the Business Process Management System. The object of this research is the online media company PT Kreasi Ngalam Media (AboutMalang.com). Currently, the system that is being used to manage employee data, calculate salaries, and generate reports still relies on manual processes. The use of a web-based employee payroll information system application is expected to provide significant assistance to companies in managing employee data, calculating salaries, and preparing reports. The research method used is qualitative, and the data collection uses primary data sources in the form of direct observation and secondary data sources from the company's payroll reports. The results of this research are in the form of a business process model based on the Business Process Model Notation (BPMN), which can improve effectiveness and efficiency, with an impact on improving the quality of the company's business processes.

INTRODUCTION

Business processes refer to a series of dynamically organized and related actions, or logically related tasks, to provide value to customers or achieve other strategic objectives (Lemanska-Majdzik & Okreglicka, 2015). Every organization has business processes that are determined by the environment and the characteristics of the organization itself, starting from finance, organizational development, and human resource management (Sudjiman, 2020). If a company wants to compete in the market, they need to be aware that identifying and understanding business processes is the key to success (Singh, 2012). Organizations always operate with a process focus, where they perform a series of activities that consume resources to produce goods and/or services that provide value to customers and the organization itself. However, recently, with the popularity of Business Process Management (BPM), organizations have begun to explicitly organize and formalize their processes in a systematic manner (Trigo, Belfo, & Estébanez, 2016).

Business process management is a comprehensive approach to achieving efficiency and effectiveness in an organization's business processes. The main objective of business process management is to increase the efficiency and effectiveness of organizational processes through improvement and innovation (Schmiedel, Brocke, & Recker, 2014). The main benefit of BPM is its ability to adapt business processes to the changing needs of the market. Due to its dynamic nature, BPM enables companies to respond to changing market conditions quickly and efficiently, thus saving costs (Riemann, 2015).

One of the most important business activities is financial administration. Financial administration is one of the main activities in a company that shows how organizations manage business documents and information properly as well as conduct financial management. (Mikesell, 2018). These financial administration activities include the preparation and planning of corporate finances; the flow of funds; the analysis of debt, assets, and payment schemes; the audit of financial budgets used for special purposes; and the archiving and management of valuables.

The case study of this research is PT Kreasi Ngalam Media (AboutMalang.com), which is an online media company that implements a sharing economy business model. The company is located in Malang City, East Java, and was established in September 2021. As an online media company, of course, its main activity is to produce news and content on both international and local issues. Increasing the number of content creators is a strategy to increase content and writing production to attract more readers, which will have an impact on increasing company revenue.

Currently is the era of collaboration, as well as PT Kreasi Ngalam Media in partnership with PT Promedia Teknologi Indonesia, which is a pioneer of the digital media ecosystem in Indonesia. Carrying out the concept of a sharing economy, namely the existence of an agreement that each party provides resources to each other. In short, PT Promedia Teknologi Indonesia is the technology provider, while PT Kreasi Ngalam Media (AboutMalang.com) is the content provider. The value of the sharing economy business model can be

explained by creating utility between the owners of certain resources and customers who need those resources at the right time and with reasonable transaction costs (Business Innovation Observatory, 2013). This shared business model is perceived not only by consumers but also by investors who are optimistic about its profit potential, resulting in valuations that often match or even surpass those of their much larger and more established competitors (Wirtz, So, Mody, Liu, & Chun, 2019). This sharing economy occurs at PT Promedia Teknologi Indonesia with PT Kreasi Ngalam Media, then at PT Kreasi Ngalam Media with content creators working at the company. In addition, the payroll system that exists at the company is not a fixed salary but a performance-based system where content creators and writers earn income according to page views. Seeing the conditions that exist in the company, of course, we need an Accounting Information System (SIA) model that can accommodate this.

As a newly established company, there is no Accounting Information System (AIS) used yet, so the recording is done manually. Another problem is that, as a company that is still one year old, it has limited human resources specifically dealing with financial matters. In terms of control, it is also lacking because the shareholder of PT Kreasi Ngalam Media is not only owned by one person. This process certainly has quite an impact on the ineffectiveness and inefficiency of financial activities at PT Kreasi Ngalam Media. As a result of these problems, the monthly financial reports are not presented, and the salary slips and income of editors and content creators are not available. Therefore, from the problems described above, it can be concluded that the quality of financial administration is not good. From this explanation, a fishbone analysis model is described to help map problems and find the best solution, which can be seen in Figure 1.

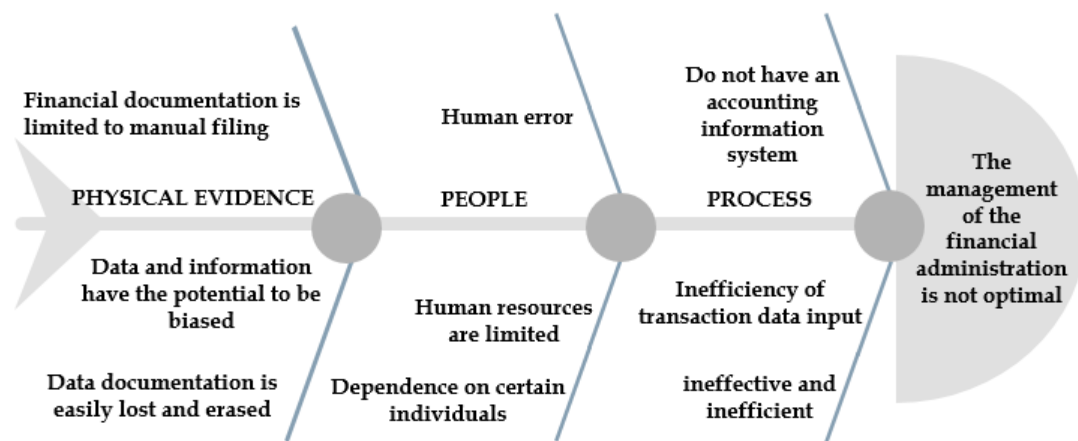


Figure 1. Fishbone Diagram of PT Kreasi Ngalam Media's Financial Administration Problems

Based on this analysis, it can be identified that three main factors cause the problem of the lack of quality financial administration at PT Kreasi Ngalam Media, namely, business processes, human resources, and documentation or

filing. These three factors should be controlled more easily when the company has an Information System implemented in its operations. In particular, from various modules, PT Kreasi Ngalam Media can develop an Accounting Information System to improve the quality of the management of the company's financial administration. This is because, by using the Accounting Information system, the company can create an integrated financial administration process with several branches. With the system, all information will be centralized in one database, making it easier to synchronize and extract more complete information (Kot, Štefko, Dobrovič, Rajnoha, & Váchal, 2019).

An Accounting Information System (AIS) is a system that collects, records, stores, and processes data to produce information for decision-makers (Romney & Steinbart, Accounting Information Systems, 2016). The existence of an SIA in a company has a significant impact on its effectiveness. This effectiveness is assessed by the quality of financial reporting, decision-making processes, control systems, performance, and transaction facilitation in general (Siqani & Vokshi, 2019). In addition, in practice, it was found that there was a positive relationship between Small and Medium Enterprises (SMEs) using SIA for fiscal and bank management as well as better performance measures (Grande, Estébanez, & Colomina, 2011).

Therefore, in this research, a system analysis and modeling process will be carried out to solve problems faced by the company and improve business processes in the future. This study will focus on payroll. With the existence of an effective payroll information system, quality information will be created that supports the implementation of a good payroll internal control system (Kavanagh & Johnson, 2018). Therefore, companies need to implement an adequate payroll system. This is important because the effectiveness of salary internal control can be properly achieved when it is supported by reliable and timely information generated by the accounting information system (Palladan & Palladan, 2018).

Based on the background of these problems, this study carried out analysis and modeling related to the company's financial processes, especially the payroll process. This study uses the case study method to conduct an in-depth analysis of the problems that are the focus of the research. The analysis process is based on the use of the Business Process Management System (BPMS) and is supported by modeling using the Business Process Management Notation (BPMN). Thus, the research results are expected to produce a proposed payroll accounting information system model that can improve the effectiveness, efficiency, and quality of the company's business processes.

THEORETICAL REVIEW

Accounting Information System

The Accounting Information System (AIS) is a data and transaction processing system that produces useful information for planning, controlling, and operating a business (Hall, 2011). The resulting information consists of financial accounting information in the form of financial reports and non-financial information in the form of management reports. Financial reports contain useful information for external parties, while management reports are

intended for the benefit of internal company decision-making. In management accounting information, some components are used for company planning and control. These components include cost accounting systems that are widely used by management for planning and supervising procurement activities, distribution processes, and sales. Another component is the budgeting system, which is useful as a projection of the company's finances for the future.

Accounting is the process of measuring, communicating, and interpreting financial information, while information systems are designed to support and automate accounting activities, including collecting, storing, and reporting financial data. Information systems are an important component of accounting, and the two are interrelated. Accounting Information Systems can provide useful reports and analytics to help decision-makers make more informed decisions. In addition, the importance of data integrity, security, and control in accounting information systems is also important. This presentation provides a clear understanding of the relationship between accounting and information systems and how they are used to support effective decision-making (Romney M. B., Steinbart, Summers, & Wood, 2020).

The main benefits of using an optimal Accounting Information System in an organization are better adaptation to an environment that changes over time, reasonable transaction management, and a high level of competitiveness. It can also provide an impetus for the dynamic nature of the company with greater information flow between different levels of staff, the possibility of new business on the network, and increased external relations with the company, for example, with foreign plans accessed through the company web (Grande, Estébanez, & Colomina, 2011).

Sharing Economy

The term "Sharing economy" was first mentioned in 2008, referring to collaborative consumption that involves sharing, exchanging, and renting resources without ownership of goods (Lessig, 2008). The sharing economy is a socio-economic system that facilitates the exchange of goods and services between individuals and organizations, aiming to increase efficiency and optimize the utilization of underutilized resources in society (Muoz & Cohen, 2017). Extrinsic motivation is the main motivating factor for service providers and recipients. Although financial motivation is very important, the sharing economy also involves various other motivational factors. The sharing economy operates with a new business model that has a unique income stream. This diversity is reflected in different geographic locations around the world with complex policies and regulations. Nonetheless, it is widely agreed that the sharing economy has a significant impact on economic, social, and environmental aspects. Therefore, it contributes to sustainable development (Hossain, 2020).

The sharing economy first became a topic that was widely discussed by the public in 2011, when the great success of companies such as Airbnb and Uber became the main focus (Martin, 2016). However, on a larger scale, prominent examples such as Uber and Airbnb use an information and communication technology (ICT)-based platform model. The concept of the sharing economy

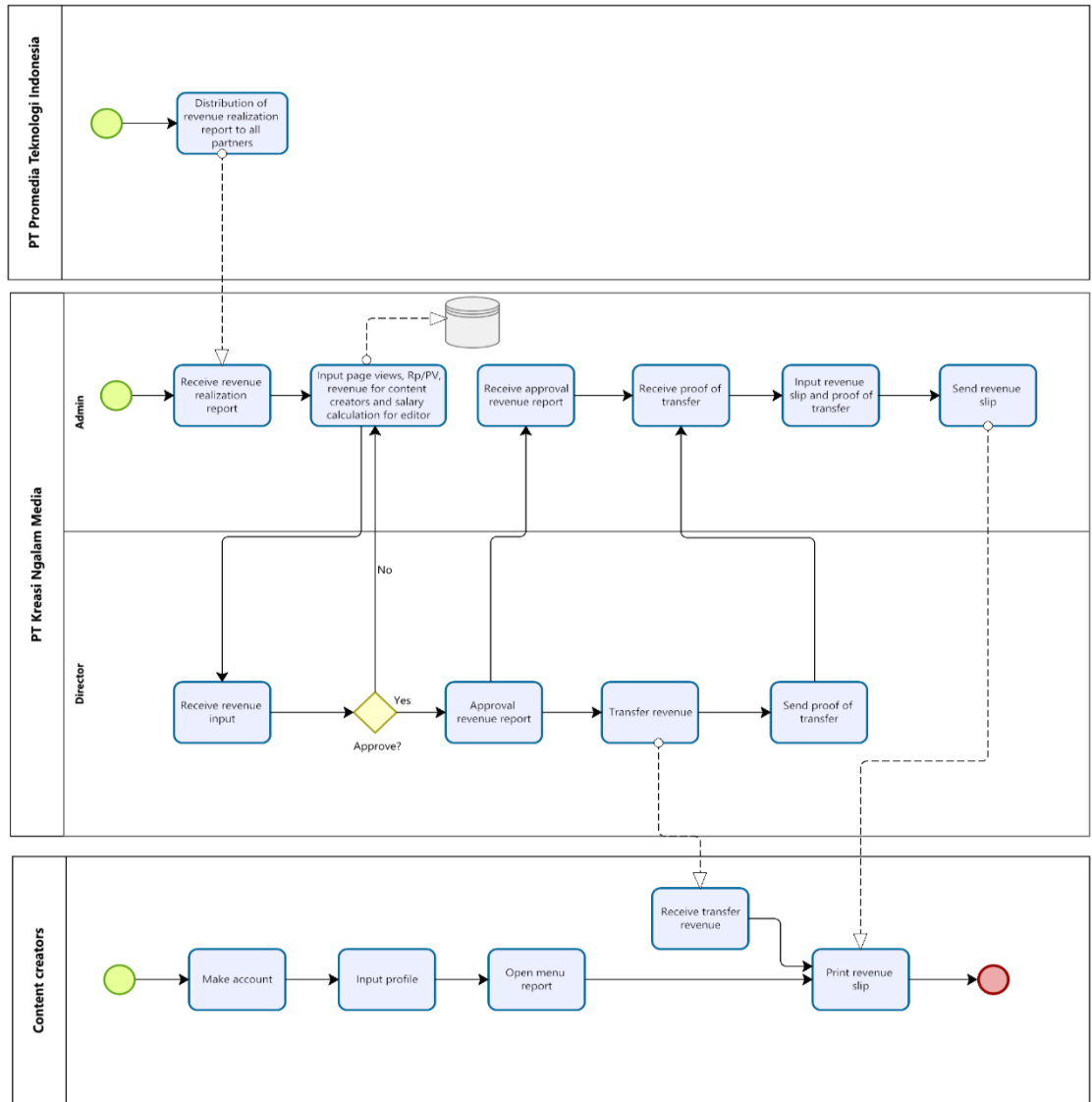
involves various disciplines, including anthropology, business modeling, consumer behavior, economics, geography, innovation, law, management, marketing, psychology, sociology, sustainability, tourism, and transactions (Acquier, Daudigeos, & Pinkse, 2017). The sharing economy is a phenomenon in which people participate in various activities such as bartering, borrowing, leasing, trade, exchange, and transportation (Heo, 2016). It is predicted that the value of the sharing economy will reach US\$335 billion in 2025, increasing rapidly from only US\$15 billion in 2015 (Cheng, 2016).

METHODOLOGY

This study applies a qualitative method with a case study approach to analyze the business process design of an object that has experienced problems in implementing the previous business process. The qualitative method is considered more useful in identifying problems as a whole, so it was chosen because this method's approach to reality is holistic, dynamic, and does not separate elements into research variables (Sugiyono, 2019). The object of this research was conducted at the online media company PT Kreasi Ngalam Media (AboutMalang.com). The data sources used in this study are primary and secondary. Primary data were obtained from field observations at PT Kreasi Ngalam Media and interviews with directors related to the Accounting Information System in the company. Then, deeper exploration is carried out, especially regarding the payroll system. Furthermore, secondary data was obtained through literature studies obtained from journal articles, the internet, and books related to business process management, as well as documents belonging to PT Kreasi Ngalam Media, namely payroll reports.

RESULTS

Based on the analysis of the problems encountered and the business process improvement analysis above, the main business process model is designed using the Business Process Management Notation (BPMN). BPMN is designed to visualize business process improvement analysis so that an overview of business processes can be obtained. This can make it easier for users to implement Accounting Information Systems in online media companies. Business modeling is presented in Figure 2.



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Figure 2. Business Process of the Payroll System

Figure 2 shows the business processes of the payroll system designed to improve the previous business processes. The part that plays a role is PT Promedia Teknologi Indonesia, the administrator, and director of PT Kreasi Ngalam Media, as well as the content creators who work at PT Kreasi Ngalam Media. Apart from admins and directors who have accounts on the payroll system, content creators also have accounts on the system, where functions can see the page views of their writing as well as the estimate and relation of Rp/PV. In addition, companies no longer send salary slips via Telegram, now content creators can view their monthly payslips through the system. Therefore, each content creator is asked to create an account on the system and then fill in their profile correctly. Content creators can see their income every month on the system.

PT Kreasi Ngalam Media received a revenue realization report from PT Promedia Teknologi Indonesia. Then, the admin inputs revenue data and page view

data and then performs calculations for revenue content creators through the system. The data will then be checked by the director; if it is appropriate, the director will transfer the content creator revenue; if there is an error, it will be revised again by the admin. After the transfer, the director will input proof of transfer into the system, and then it will be accepted by the admin. After the director inputs proof of transfer, the payslip is automatically ready to be sent to the content creator by the admin. Content creators can view payslips through their respective accounts. The content creator payroll process is complete.

DISCUSSION

This modeling provides an overview of how financial information is recorded, managed, and reported in the sharing economy business environment. In this model, the digital platform becomes the center of business activities and accounting management. Transaction information that occurs, including payments, expenses, and receipts, is automatically recorded in an integrated Accounting Information System.

Implementing an Accounting Information System has the potential to improve the quality of decision-making by managers, the effectiveness of the internal control system, the quality of financial reports, and the process of financial transactions (Sajady, 2008). The use of an integrated accounting system in the sharing economy business model provides several benefits. First, this system improves the company's operational efficiency by automating transaction recording and management. This saves the time and resources needed to process transactions manually. Second, an integrated accounting information system allows users to access real-time financial information. This helps in better decision-making, such as business performance analysis and more effective financial monitoring.

Proposed plans for implementing new business processes can increase the efficiency and effectiveness of business processes in companies (Salma, Prasolov, Glazkova, & Rogulin, 2021). The main role in company operations is determined by business processes, so optimal planning and management are needed (Paschek, Rennung, Trusculescu, & Draghici, 2016). In addition, this modeling also shows the importance of transparency in the sharing economy business model. With an integrated accounting system, financial information becomes more transparent and can be accessed by all related parties, including companies and content creators. This helps build stakeholder trust and enhance business integrity. Modeling accounting information systems for companies implementing the sharing economy business model has important implications for effective financial management and financial reporting. With an integrated system, high transparency, and increased operational efficiency, companies can achieve success in running the sharing economy business model.

CONCLUSIONS AND RECOMMENDATIONS

Business processes are the core of all activities in a company or organization. To achieve company goals, business processes are the main determinant of utilizing all the resources in the company. This research focuses on business process problems at PT Kreasi Ngalam Media, especially on the

payroll system. The qualitative case study method is used in this study to formulate a business process model that can overcome these problems.

The results of the study show that the use of a process model based on the Business Process Management System (BPMS) is a potential alternative for companies to increase the effectiveness and efficiency of business processes. By implementing this model, the quality of the company's business processes can be improved. In addition, this modeling allows evaluation and continuous improvement that will be more optimal for the company in the future.

FURTHER STUDY

Suggestions for further research include analyzing the application of this research model in real terms to the company so that it can measure the level of improvement achieved. This can help validate the effectiveness of the model and provide further insight into its impact on company performance.

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