

Analysis of the Effectiveness of Implementing Accounting Information Systems at PT. Diamond Hevea Industry

Effectiveness of
Implementing
Accounting
Information Systems

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ABSTRACT

This research aims to analyze the effectiveness of implementing accounting information systems at PT. Diamond Hevea Industry. The research uses qualitative research methods, where this research aims to obtain data that contains. In this research, data collection techniques used observation, interviews and documentation. In this research, the analysis technique used is map analysis, coding map and matrix framework. Based on the results of the analysis of the problem formulation, namely how effective the implementation of the accounting information system at PT. Intan Hevea Industry, then also what obstacles occur in implementing the effectiveness of the accounting information system and finally what efforts are made in implementing the accounting implementation system at PT. Diamond Hevea Industry.

Keywords: Accounting Information Systems, Implementation Effectiveness, Qualitative Research Methods, PT. Diamond Hevea Industry

ABSTRAK

Penelitian ini bertujuan untuk menganalisis efektivitas penerapan sistem informasi akuntansi pada PT. Intan Hevea Industry. Pada penelitian menggunakan metode penelitian kualitatif yang dimana penelitian ini bertujuan untuk mendapatkan data yang mengandung. Pada penelitian ini teknik pengumpulan datanya menggunakan observasi, interview dan dokumentasi. Pada penelitian ini teknik analisis yang digunakan menggunakan analisis map, coding map dan framework matriks. Berdasarkan hasil analisis rumusan masalah yakni bagaimana efektivitas penerapan sistem informasi akuntansi yang terdapat pada PT. Intan Hevea Industry, kemudian juga kendala apa yang terjadi dalam penerapan efektivitas sitem informasi akuntansi dan yang terakhir upaya apa yang dilakukan dalam menerapkan sistem penerapan akuntansi pada PT. Intan Hevea Industry.

Kata kunci: Sistem Informasi Akuntansi, Efektivitas Implementasi, Metode Penelitian Kualitatif, PT. Diamond Hevea Industry

INTRODUCTION

The development of technology is one of the consequences of the changing times. Technology continues to evolve to meet the growing needs of society over time (Gill et al., 2019). Accounting information systems are required by various parties within a company, such as managers and employees. Managers need this information to plan, monitor, and control operations, while employees rely on this information to understand their roles within the company (Tuerah, 2013). Moreover, in this industry, all companies strive to stabilize their business with the assistance of computer systems. PT. Intan Hevea

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Industry is a private company located at Jalan Pulau Irian No. 13, Medan, North Sumatra, Indonesia, established in 1988. The main activities of PT. Intan Hevea Industry include the production of knitted and non-knitted gloves, both latex and nitrile.

Efficiency measures the completion of specific tasks within an organization (Kumorotomo, 2005). In the production department of PT. Intan Hevea Industry, efficiency is evaluated regarding the information system and accounting information system that calculates every material obtained in one shift, starting from machines 1,2,3,4,5,6, and any constraints that arise. The reasons for achieving or not achieving efficiency in the accounting information system are considered. The accounting information system at PT. Intan Hevea Industry Production Department discusses the differences or discrepancies in calculations between paper formats and computers. This has led to the company not achieving the desired performance targets.

The implementation of an accounting information system will run smoothly if the system is periodically evaluated to ensure that it can produce the vision and mission intended by the company. Until now, PT. Intan Hevea Industry has not used technology to manage company reporting data; the company only processes data through archives separated by business areas. After collecting the archives, the recording department transfers data to the provided Microsoft Excel format.

The drawback of using Microsoft Excel is the absence of change history when data is modified. As a result, even for master data, it can take a long time and may lead to errors when saving business report data. Therefore, to maximize comprehensive data management, an accounting information system that can manage stored data in the system is required. The advantage of this processing is that all information is easier and less time-consuming to manage in reporting.

Based on interviews conducted by the researcher with Sudarwat, the head of Quality Assurance (Q.A), who is part of the control of rubber glove packaging compliance, the author found that there are several factors affecting the information system in the company, and the accounting information system does not work well. For example, there are delays or errors in entering reports, such as errors in entering reports by employees who fail to perform their duties. During registration, employees must enter reports on the paper forms given to them, and then the report data must be transferred to the computer. This results in a large number of errors and inaccuracies, with disorganized data and anomalies in calculations.

Why does this happen? It is because the company has reduced the number of staff needed to manage reporting data. The author also interviewed Mrs. Kasmaria Sihotang, the coordinator of machines at PT. Intan Hevea Industry. She stated that the delay in entering information in the report is caused by employees who do not know what to do when entering the form and computer input. This leads to miscalculations written on paper forms, resulting in errors when entering information into the computer. If discrepancies occur, the results may differ, and the cause is the lack of human resources at PT. Intan Hevea Industry.

Based on the statements from the interviews with two individuals (Q.A and Machine Coordinator), it is clear that PT. Intan Hevea Industry lacks knowledge and responsibility among staff that needs to be fulfilled, especially in the data entry section of the reports. Based on the described issues, the author decides to choose the title "Analysis of the Effectiveness of the Implementation of Accounting Information Systems at PT. Intan Hevea Industry."

LITERATURE REVIEW

Information Systems

Information system is a human-made information processing system, typically consisting of a set of integrated components (both manual and computerized) to collect, store, manage data, and communicate information about inventory balances (Maryadi et al., 2022; Tavana et al., 2020; Wei, 2021). According to Sunaria et al. (2020), an information system is a series of formal procedures in which information is grouped,

processed into information, and distributed to users. According to Kartarina et al. (2019), an information system is a system that has the ability to collect information from all sources and use various media to display that information.

According to Setyowati et al. (2021), an information system is a component consisting of humans, information technology, and work methods that process, store, analyze, and distribute information to achieve a goal. According to Hall (2011), an information system is a set of formal procedures for collecting data, processing it into information, and distributing it to users. Based on the opinions of experts, it can be concluded that an information system is a collection of information in any form (manual or computer data) used by users.

Accounting Information System

Accounting Information System (AIS) is a system within an organization responsible for the preparation of information obtained from the collection and processing of transaction data that is useful for all users both inside and outside the company (Elsharif, 2019; Hosain, 2019; Turner et al., 2022). According to Susanto (2015), an accounting information system can be interpreted as a collection (integration) of subsystems or components, both physical and non-physical, that are interrelated and work together harmoniously to process transactional data on financial information related to financial issues.

The Accounting Information System (AIS) is an information system that regulates everything related to accounting. Accounting itself is actually an information system. According to Diana & Setiawati (2011), the accounting information system is a system that aims to collect and process information and present information related to financial transactions. Meanwhile, according to Liu et al. (2019), the accounting information system is a system that aims to collect and process financial transactions and report information. Based on the opinions of experts, it can be concluded that the accounting information system is a set of components related to the financial affairs of an organization/company.

Effectiveness

Efficiency is a measure of the achievement of goals as a result or influence of activities carried out (Rahmawati & Suryadi, 2019). According to Rahmadini et al. (2023), efficiency refers to a state where there is consistency between the goals and objectives that have been set previously with the results achieved. According to Bungkaes in the article by Ratih et al. (2020), efficiency is the relationship between output and objectives. In the sense that efficiency is a measure that shows the extent to which production, policies, and organizational procedures achieve the set goals. According to Batzner et al. (2022), efficiency is the ability of a company to achieve its set goals accurately.

According to Nechaev et al. (2022), efficiency is the use of infrastructure and resources in a predetermined amount to produce some goods or services, an activity carried out by an individual or a company. Based on the opinions of experts, it can be concluded that efficiency is the result of a company's activities in terms of human and natural resources.

METHODS

This research uses a qualitative research method. The purpose of qualitative research is to obtain information that contains meaning. Descriptive method is also a research approach that explains problem-solving based on analysis and interpretation of comparative and correlative data, thus not using hypotheses in its research. This qualitative research specifically aims to use a case study method. A case study is an approach that examines a real event experienced by an individual or a group of people. Case studies use an in-depth approach to examine unique cases, starting from who the perpetrator is, what the motive is, how the process occurs, why it happens, and when it happens.

This research is conducted to understand how staff shortages in this company and the effectiveness of implementing the accounting information system at PT. Intan Hevea Industry. Explain whether it is effective or not in work with the accounting information

system, where human resources are scarce and some tasks are done individually. And to find out whether the system used plays a good role in managing the accounting information system of PT. Intan Hevea Industry or not.

The stage of defining the formulation of the problem in this writing refers to the issues that have clearly become the background of the research problem. Currently, PT. Intan Hevea Industry does not use technology in managing the company's reporting data, but the company only processes data through archives separated by business areas. After collecting the archives, the recording department transfers the data to the Microsoft Excel format provided for it. Therefore, to maximize the overall data management, an accounting information system is needed that can manage the data stored in the system. The advantage of this processing is that all information is easier and does not take much time in managing reporting information.

The literature review collection technique stage involves obtaining relevant references from previous research, journals, and written materials related to the ongoing research.

The designed data collection stage requires various data collection methods tailored to the research needs. These methods include observation, involving direct observation of PT. Intan Hevea Industry; interviews, conducted through direct question-and-answer sessions with key informants such as Mrs. Kasmaria Sihotang as the Coordinator and Mrs. Sudarwati as the Head of QA (Quality Assurance) in the material/checking section of rubber glove production at the company; and documentation, involving the retrieval of data from reports, records, books, journals, and other information sources. The documentation method can be utilized to verify and interpret the data that will be processed in this research.

RESULTS

Implementation of Accounting Information Systems in General

Abdelraheem et al. (2021), Accounting Information System is a collection of entity structures that manage physical resources and other resources to transform financial information into accounting information to meet the information needs of various parties. The required information can be used as a tool for management decision-making. The processing of physical resources can include the financial reports owned by the company, including the balance sheet, income statement, statement of changes in equity, and the Cash Flow statement.

Accounting Information System (AIS) is a system that collects, stores, maintains, and processes data to provide information to decision-makers. AIS includes people, procedures and instructions, information, software, information technology infrastructure, internal controls, and security measures. The accounting information system is the most crucial part needed by company management, especially regarding the financial information of the company. Every company, whether government or private, has goals and objectives to achieve. To achieve these goals, business leaders must be able to make the right decisions among various available options.

Internally, the accounting information system can work optimally to produce various structured accounting information useful for both internal and external parties of the company and is also crucial for the development and growth of the company itself. In accounting, the financial decision-making process is generated from the availability of various financial information needed by various parties, and accounting must go through several stages of this process.

The process starts with the collection of basic documents, identification of transaction types, analysis, summarization in records, reporting in the form of required financial statements, called the accounting cycle. The implementation of an accounting information system will run well if the system is evaluated periodically so that it can produce the intended vision and mission of the company.

Until now, PT. Intan Hevea Industry does not use technology in managing the company's reporting data; instead, the company processes data using archives separated

by business areas. After collecting the archives, the recording department transfers data to the Microsoft Excel format provided for that purpose.

Flowchart Model/Flow Diagram of Accounting Information Systems at PT. Hevea Diamond Industries

This diagram is to describe the data processing process in outline or comprehensively. This diagram is designed to pay attention to the input required by the system and the output produced by the system itself. The proposed diagram can be seen in the image below:

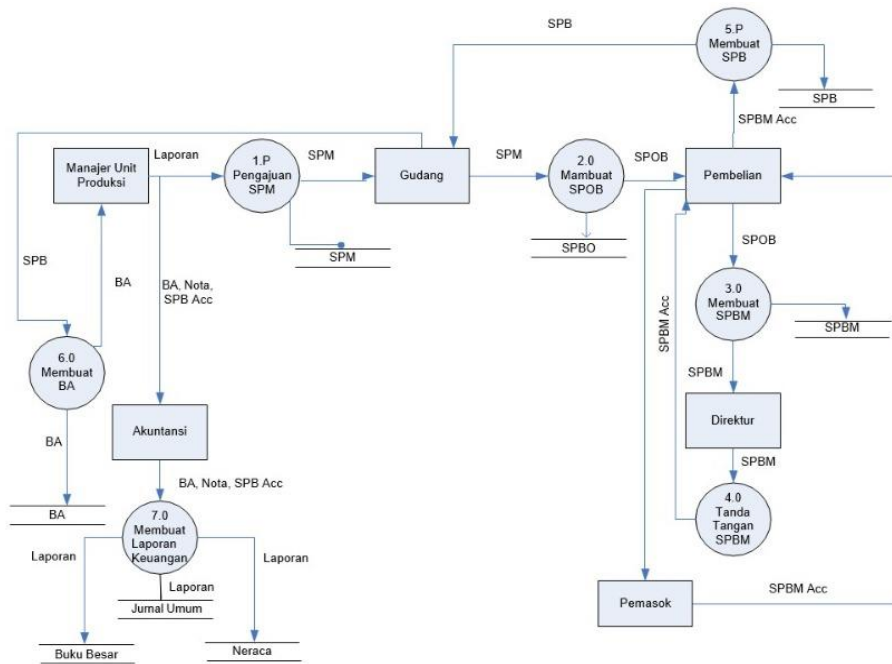


Figure 1. Flowchart Model/Accounting Information System Flow Diagram

Based on the picture above, it can be concluded that the process of implementing an accounting information system is based on the balance sheet and ledger, which are known to the production unit and production manager. Then the report is also submitted to the production unit in the form of BA (minutes). When this occurs, the accounting party will issue an SPM (Goods Request Letter). Then the following flow of letters will be issued in the form of SPM (Material Purchase Letter). The warehouse then issues a SPOB (Goods Order Request Letter). When the letter is approved (ACC), the director will issue and sign the SPBM (Materials Purchase Letter).

Implementation of the PT Accounting Information System. Diamond Hevea Industry

The effectiveness in the production department at PT. Intan Hevea Industry discusses how effective the information system and its accounting system are in calculating each material obtained in one shift. The accounting information system at PT. Intan Hevea Industry in the Production department discusses the existing differences or discrepancies in calculations between paper forms and the computer. This results in the company not achieving the desired target for the expected outcomes. The implementation of an accounting information system will function properly if the system is evaluated periodically, to produce the planned vision and mission of the company. For now, PT. Intan Hevea Industry has not utilized technology to manage the company's reporting data; instead, the company processes data using archives separated by each division. After these archives are collected, the recording department transfers the data to the provided Microsoft Excel format. Based on the interviews conducted by the author with Mrs. Sudarwati, the head of Quality Assurance (Q.A), which is the department responsible for

checking whether the rubber gloves are suitable for packing, the author found several factors that cause the information system and accounting information system in the company to not function well. This includes delays or errors in inputting reports, such as when employees not responsible for this task have to input reports through provided paper forms. In this case, the implementation of the accounting information system at PT. Intan Hevea Industry often results in errors, particularly in the calculations written on the paper form, as discrepancies occur between the calculated results and what is written when inputting into the computer.

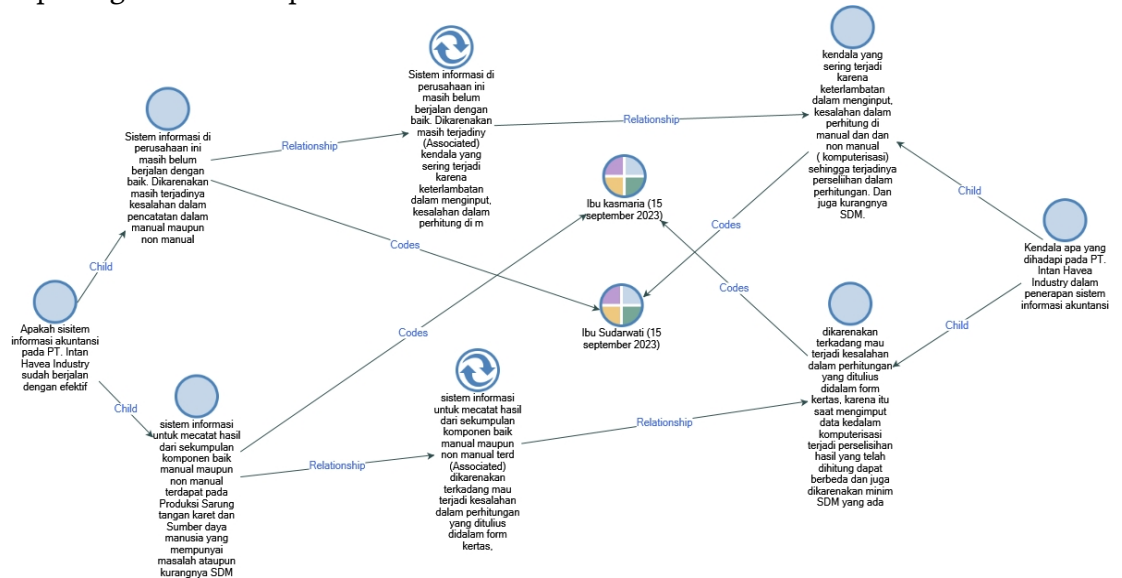


Figure 2. Analytical Maps Nvivo 11 Implementation of Accounting Information Systems at PT. Diamond Hevea Industry

Based on the brainware map analysis image above, it can be concluded that the system for implementing accounting information at PT. Intan Hevea Industry is the lack of effective implementation carried out by human resources (employees), especially in the data transfer system from manual to computerized system, causing errors in the input process.

Obstacles Faced in Implementing PT's Accounting Information System. Diamond Hevea Industry

In this case, the obstacle faced in implementation is the lack of knowledge and obligations of employees in the input process so that what happens is that writing errors often occur on paper forms that have been written and transferred to the computerized system at the PT company. Diamond Hevea Industry.

Then also based on the results of the interview from Mrs. Sudarwati who explained that the problem that occurred was a manual recording error in the production of rubber gloves at PT. Intan Hevea Industry where there is still a lack of accuracy carried out by workers in carrying out these inputs. In accounting information systems, the success of the information system is determined by the quality of the information it produces.

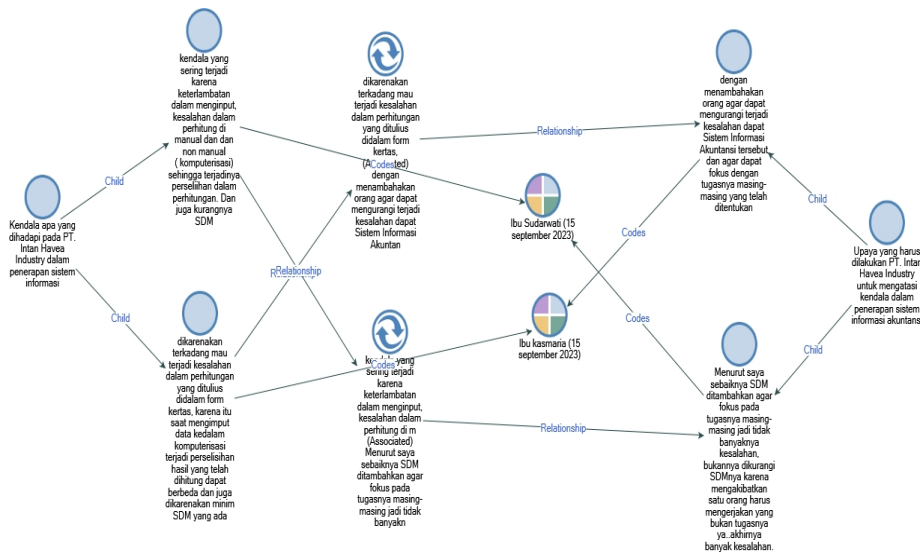


Figure 3. Analytical Maps Nvivo 11 Obstacles to Implementing Accounting Information Systems at PT. Diamond Hevea Industry

Based on the results of the brainware analysis above, it can be concluded that the obstacle faced by the company is the frequent occurrence of data input errors made by HR, one of which is that employees are not careful when inputting to the computer.

Efforts Made in Implementing the PT Accounting Information System. Diamond Hevea Industry

The efforts made by PT. Intan Hevea Industry to address the challenges faced by the company involve adding personnel to perform the tasks, aiming to minimize errors in the accounting information system. Based on the interview results with Mrs. Kasmaria, it was stated that the company's efforts include increasing the number of human resources without replacing existing ones but adding personnel with the same positions. This is done to effectively control the risk of errors. The existing systems have been functioning well, and there have been no complaints so far. If there are areas that need improvement, it is better to address them promptly without a complete overhaul. For instance, a simple issue like a database not being well-managed by employees, resulting in the likelihood of duplicate customer data, should be audited promptly. Employees should be trained to master the application programs, such as MS Access, and encouraged to be creative according to their preferences. When employees enjoy their work, they will naturally develop affection for the database designs they create themselves. Eventually, everyone in the customer department will be trained, or at least provided with tables, queries, and reports tailored to user preferences. The effect is that everyone in the customer department will master the application program, and this effort is cost-effective and straightforward.

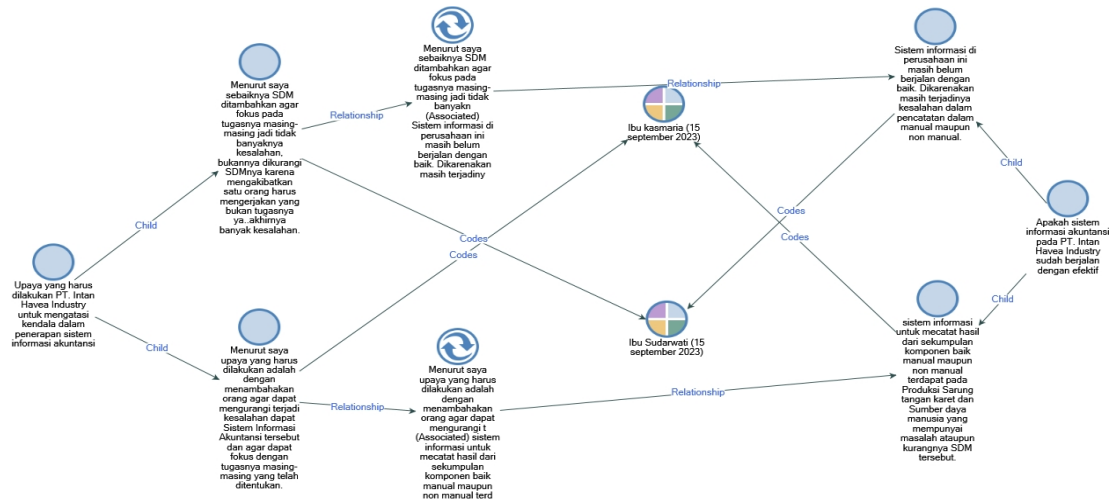


Figure 4. Analytical Maps Nvivo 11 Efforts to Implement Accounting Information Systems at PT. Diamond Hevea Industry

Based on the results of the brainware analysis above, it can be concluded that the efforts made by PT. Intan Hevea Industry aims to increase the number of human resources without reducing the number of human resources from old positions so that it can minimize the level of errors that occur.

DISCUSSION

The ability to make good decisions enhances a company's competitiveness. Competitiveness requires strategies to maximize opportunities and eliminate or neutralize business obstacles and threats. Input from the accounting information system is a factor that provides input to management in decision-making. Each implementation of a company's accounting information system undoubtedly has its own objectives. Fundamentally, the goal of implementing an accounting information system is to streamline company operations by providing relevant and timely information and creating internal controls to secure company assets.

It is important to consider that the creation of an accounting information system should bring more significant benefits than the costs incurred. One of the goals of implementing an accounting information system is to enhance internal controls. The better internal controls implemented, the better the company's performance. The implementation of an accounting information system will run smoothly if the system is periodically evaluated, resulting in the achievement of the company's intended vision and mission.

As of now, PT. Intan Hevea Industry does not use technology to manage the company's reporting data. The company processes data using archives separated by business areas. After collecting the archives, the recording department transfers the data to the provided Microsoft Excel format. Based on interviews conducted by Mrs. Sudarwati with the Q.A (Quality Assurance) manager, who is part of the precise control of rubber glove testing, the author found that information is affected by several factors. The company's system and accounting information system do not function well. For instance, there are delays or errors in entering reports, such as when every employee who does not perform their duties should be able to enter reports using specific paper forms.

In the implementation of the accounting information system at PT. Intan Hevea Industry, errors are frequently encountered. These errors typically involve miscalculations written on paper forms, as there is often a discrepancy between the calculated results and what is written when input into the computer. The execution is hindered by the lack of knowledge and responsibility of employees in the input process, leading to typing errors on the written paper forms transferred to the company's computer system.

Additionally, based on the interview results from Sudarwat, it was explained that a problem occurs due to manual registration errors in the production of rubber gloves at PT. Intan Hevea Industry, where workers lack precision in performing the input. To address these issues, PT. Intan Hevea Industry's solution is to employ more people to minimize errors in the accounting information system. According to the interview with Mrs. Kasmaria, the company's goal is to increase the number of human resources without replacing the old staff but by adding human resources in the same positions. This approach aims to manage the risk of errors effectively.

The research findings above are consistent with the study conducted by Betah et al. (2021), which showed that PT Melodi Asri in Bitung implements a fairly effective sales accounting information system using forms, records, procedures, reports, human resources, and equipment that fulfill the tasks and objectives of the sales accounting information system. A similar study was also conducted by Sihotang & Hariani (2021), where the conclusion was that the implementation of the revenue cycle accounting information system at PTPN III Kebun Sei Silau is in line with the theory but still needs improvement in procedures.

CONCLUSION

Based on the analysis and discussion of the data, the author concludes several points. Firstly, the implementation of the accounting information system at PT. Intan Hevea Industry is not yet effective, and improvements are needed in the existing system to ensure its smooth operation. Secondly, the main challenge faced by the company is related to the lack of meticulousness among employees in inputting data on Rubber Gloves products, which is subsequently entered into the computer system. Lastly, PT. Intan Hevea Industry's efforts to address these issues involve increasing the number of employees (human resources) to minimize the occurrence of errors.

Saran yang perlu diperhatikan oleh para pegawai dan pihak perusahaan PT. Intan Hevea Industry adalah sebagai berikut. Pertama, pihak perusahaan diharapkan dapat lebih mengoptimalkan penerapan sistem informasi akuntansi, khususnya dalam mengubah sistem penginputan manual menjadi sistem komputerisasi, agar dapat berjalan dengan lebih efektif. Kedua, para pegawai perlu mampu menjalankan sistem akuntansi dengan baik tanpa membuat kesalahan, sehingga upaya yang dilakukan sesuai dengan instruksi dari pihak pimpinan perusahaan. Dengan demikian, diharapkan implementasi sistem informasi akuntansi di PT. Intan Hevea Industry dapat berjalan lebih lancar dan memberikan manfaat yang optimal.

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