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FINANCE | RESEARCH ARTICLE

Analysis of Accounting Information Systems on Production and Sales Effectiveness at PT. Gresik Cipta Sejahtera Labuhan Batu Branch, Indonesia

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Abstract: This study aims to determine whether the accounting information system for production and sales at PT Gresik Cipta Sejahtera Labuhan Batu Branch has been running effectively or not. The focus of this branch is to ensure the smooth running of the production and sales process. The use of an efficient accounting information system can increase production effectiveness by ensuring that fertilizer stock is always available on time and in the right amount. In addition, this system can also support sales strategies by providing relevant information for decision making related to price, promotion, and distribution. This study uses a descriptive qualitative approach to understand the impact of accounting information systems on operational effectiveness. Primary data were obtained through interviews and direct observation. The results of the study indicate that the raw material inventory accounting information system implemented at PT Gresik Cipta Sejahtera is quite reliable in recording and reporting inventory data. Although the existing system is quite effective, the study also identified several parts that need improvement, such as the need for further consistency between the inventory module and the sales module to increase the accuracy of estimating fertilizer stock needs based on sales trends.

Keywords: Accounting Information Systems, Production, Sales.

JEL Classification Code: M41, I23, J24

1. INTRODUCTION

PT. Gresik Cipta Sejahtera is a company engaged in the distribution of fertilizers, pesticides, chemicals (sulfuric acid, liquid ammonia, hydrochloric acid, phosphoric acid, etc.), industrial gases (oxygen, carbon dioxide, nitrogen, dry ice), probiotic products (retro chick, retro fish, petrobiofeed, organic fertilizers, dolomite, rice, and corn seeds). One of its branches, located in Labuhan Batu, focuses on managing raw material inventory to ensure smooth production and sales processes. Each company has a unique strategy and policy to achieve its goals in managing inventory efficiently. The focus is to achieve optimal profit, that is, by the company's long-term growth. In this case, it is essential to apply developments in science and technology and use sophisticated monitoring methods and practical efforts to ensure business continuity (Lande et al., 2022). Effective Accounting Information System An effective system requires a good design that will make the accounting information system run smoothly. An adequate system provides Control, Compatibility, Flexibility, and good cost/benefit relationship (Cahyaningsih & Putra, 2016).

The definition of an accounting information system (AIS), according to Hall (2010), is a subsystem that processes financial and non-financial transactions that have a direct impact. From this definition, it can be concluded that an accounting information system is a system that collects and informs financial data from each financial transaction. According to Romney and Steinbart (2006), a well-designed accounting information system can add value to an organization by: (1) Improving the quality and reducing the cost of products or services, (2) Increasing efficiency, (3) Sharing Knowledge,

(4) Increasing the efficiency and effectiveness of its supply chain (5) Improving internal control structures (6) Improving decision making (Viola et al., 2017).

Table 1. Monthly Report of Production and Sales at PT. Gresik Cipta Sejahtera Labuhan Batu Branch for The Period of January – May 2024

Month	Description	ZA	SP-36	NPK 15-15-15	NPK 15-10-12	NPK PLUS @25 KG	ZA PLUS %50KG	SP 26 @25 Kg
January	Initial Stock	3680	6100	5000	3680	6100	5000	4600
	Expenditure	0	0	0	0	5000	250	1250
	Final Stock:							
	• Remaining Do From Last Month	0	0	0	0	9475	0	25
	• Do Published This Month	0	0	0	34	9525	25	30
• Remaining Do This Month	0	0	0	26	65	0	0	
February	Initial Stock	3600	4800	4700	3600	4800	4700	1600
	Expenditure	0	0	0	0	80	0	25
	Final Stock:							
	• Remaining Do From Last Month	0	0	0	25	115	0	0
	• Do Published This Month	0	0	0	620	800	0	1200
• Remaining Do This Month	0	0	0	0	45	0	75	
March	Initial Stock	3500	333	475	3500	333	475	433
	Expenditure	0	0	0	0	0	0	0
	Final Stock:							
	• Remaining Do From Last Month	0	0	0	0	450	0	0
	• Do Published This Month	0	0	0	3028	650	0	0
• Remaining Do This Month	0	0	0	0	625	0	0	
April	Initial Stock	908	285	475	908	285	475	433
	Expenditure	0	0	0	0	148	0	12
	Final Stock:							
	• Remaining Do From Last Month	0	0	0	0	62	0	75
	• Do Published This Month	0	0	0	1957	146	60	110
• Remaining Do This Month	0	0	0	0	20	40	55	
May	Initial Stock	188	195	97	0	0	402	270

Month	Description	ZA	SP-36	NPK 15-15-15	NPK 15-10-12	NPK PLUS @25 KG	ZA PLUS %50KG	SP 26 @25 Kg
	Expenditure	0	0	0	0	0	0	0
	Final Stock:							
	• Remaining DO From Last Month	0	0	0	0	0	550	400
	• DO Published This Month	0	0	0	0	0	540	200
	• Remaining DO This Month	0	0	0	0	0	100	200

Based on Table 1, production from January to May appears stable despite decreasing. In February, there was a decrease in the number of fertilizer orders compared to January, a decrease of 2,620 from the previous January of 9,614. In March, orders also decreased until May. The decrease in March was 3,678; in April, it was 2,273; in May, it was 740.

$$Effectivity\ Ratio = \frac{Sales\ Target}{Sales\ Realization} \times 100\%$$

To determine whether or not fertilizer sales at PT Gresik Cipta Sejahtera Labuhan Batu Branch are effective, it can be measured using the following criteria and indicators

- >100 = Very Effective
- 85-99 = Quite Effective
- 65-84 = Less Effective
- <65 = Ineffective

According to Handayani, the purpose of establishing a company is to develop, make a profit, ensure sustainability, and satisfy customers through the products and services provided by the company. A company's success can also be assessed through the responsible parties' effective management of accounts receivable. Although credit sales can provide more significant profits, this is inseparable from the potential losses that the company can experience if customers cannot pay off their receivables (Febriyanti et al., 2024). Driven by advances in technology, economy, socio-culture, and politics, this situation will indirectly spur the development of an accounting information system. Companies are required to have a well-functioning accounting information system, where the system must have the ability to convert data into useful information. To be valid, the information system needs to be supported by three main aspects: user alignment, timeliness, and value accuracy. Thus, the data processing process will be more efficient and effective (Kembaren & Harahap, 2023). Slamet and Bogat (2014) explained that the income statement is the starting point for assessing the company's success in the following period. Each income and expense item is analyzed simultaneously with previous periods' income and expenses. From there, the tendency of income and expenses in the following period can be arranged. Of course, this method has the possibility of bias, but at least it is a medium for reducing uncertainty. Without analyzing the company's operating results, people cannot predict what will happen. The main elements of the income statement are as follows: (a). Revenue is the inflow of assets or other increases in assets or settlement of liabilities of the entity (or a combination of both) from the delivery of goods, rendering of services, or other activities that are the company's primary operations or central operations. (b). Expenses are the outflow of assets or other uses of assets or the occurrence (emergence) of liabilities of the entity (or a combination of both) caused by the delivery or manufacture of goods, rendering of services, or other activities that are the primary operations or central operations of the company. (c). Gain is an increase in equity (net assets) of an entity arising from peripheral transactions (transactions outside the company's central

operations) or incidental transactions (transactions that occur infrequently) and from all other transactions and other events or circumstances affecting the entity, excluding those resulting from revenues or investments by owners. (d). Loss is a decrease in equity (net assets) of an entity arising from peripheral transactions (transactions outside the company's central operations) or incidental transactions (transactions that occur infrequently) and from all other transactions and other events or circumstances affecting the entity, excluding those resulting from expenses or distributions to owners.

An accounting information system is a computer program that tracks and analyzes financial records and reports. An accounting information system helps companies make better choices by providing accurate data that is thoroughly analyzed and presented in an easy-to-understand and concise format (Apriliza, 2022). A system can be defined as a collection of interconnected or functioning elements that form a whole. However, the following general system idea provides a better basic idea for information systems. A system consists of a collection of interrelated components that work together to achieve a specific goal. The system works together to achieve this goal by accepting input and producing output through a consistent transformation process (Putri & Syafina, 2018). Accounting understanding can be interpreted as understanding accounting as a tool, process, or practice. In addition, this understanding can also be defined as the ability to understand the accounting process in real life, which is studied as a discipline in higher education (Saragih & Harahap, 2023).

The primary purpose of accounting is to record, report, and understand financial information used in decision-making. In general, accounting is a system that stores financial data that users use to make economic decisions (Rizqi et al., 2023). The value of information is influenced by two factors: its usefulness and the cost of obtaining it. Information is considered helpful if it is better used than obtained (Oktania & Khamal Rokan, 2022). According to Wiwin Yadiati and Ilham Wahyudi, in a manufacturing company, the inventory of goods ready for sale results from a production process that involves using several raw materials and labor resources, as well as factory capacity, such as machines. The products produced from this process are then sold (Wulandari, 2022). In the context of accounting information system analysis, the Definition of Sales, according to Mulyadi (2008), is: "activities carried out by sellers in selling goods or services in the hope of making a profit from these transactions and sales can be interpreted as the transfer or transfer of ownership rights to goods or services from the seller to the buyer." Sales can occur when goods or services are delivered, and payment is made for purchases. As for credit sales, there is a time gap between the delivery of goods or services. For credit sales, proof of receipt of goods occurs when the goods or services are delivered. Profit from cash sales transactions results from sales received in cash (Fitriyana & Sucipto, 2020). With this information, companies can design more effective marketing strategies. A sound information system will help businesses process transaction data faster, timelier, accurately, effectively, and efficiently so that the income generated is by the reporting made. If the information system in its application is adequate, it can increase company income and ensure business continuity (Fatwa et al., 2023). Effectiveness is the relationship between output and goals or targets that must be achieved. Operational activities are practical if the process achieves the policy's goals and final targets (spending wisely). Effectiveness indicators describe the range of consequences and impacts (outcomes) of program outputs or outputs in achieving program goals. The more significant the contribution of output to achieving goals, the more effective the organization, program, or activity. From several definitions of effectiveness above, it can be concluded that effectiveness is the success or failure between output and goals or targets that must be achieved (Utami & Setyariningsih, 2020).

The Production System states that a system is a collection of interconnected components to carry out an activity or a process that starts from input to output; input, in this case, includes raw materials that will go through the production process and produce an output in the form of a finished product (Hidayat et al., 2023). According to Winardi, sales are meetings between buyers and sellers to exchange goods and services by considering important factors such as money. The company aims to earn significant income and increase sales value in the long term (Hernawati, 2022). According to Kotler and Merle in Novera, measuring sales activity is the first step to maximizing the productivity of sales personnel; company sales are measured from the area they control (Rupaida, Silva Anne. Bernardin, 2016).

The managed information system can be better and more valuable if it can use information technology in its management process, which, of course, provides excellent added value because of the advantages of information technology, such as changing from a manual process to an automatic process (Liza Mutia & Arnida Wahyuni Lubis, 2023). The sales accounting information system is one of the accounting information subsystems that explains the procedures for carrying out sales activities from sales results to avoid sales manipulation. Procedures are a series of administrative activities that usually involve several people in one or more departments and are designed to ensure uniform treatment of company transactions. In this sales system, information users will be informed about how the activities are carried out, what documents are needed, and which parties can authorize sales activities (Putra, 2021).

The accounting information system has a production cycle, a series of activities and operations of information processing that are continuously related to product manufacturing. However, deficiencies in the information system used to support production cycle activities can cause significant problems for the organization. The existence of an accounting information system is essential in the production cycle, with the existence of an accounting information system helping to produce accurate cost information and precise working hours to be used as input for decision-makers in planning the products or services produced, how much the product costs, and how to plan the absorption and allocation of resources needed, and what is very important is how to plan and control production costs and evaluate the resulting productivity performance. The second function of a well-designed AIS is to provide adequate controls to ensure these objectives are achieved: (1). All production and activation remain appropriately authorized. (2). Inventory of goods in the activation process is maintained. (3). All valid and legitimate production transaction cycles will be recorded (Fitriani & Hwihanus, 2023).

Based on previous research findings, namely from (Siregar, 2018), companies often face challenges in implementing a manual Kanban system and are still using manual records and excessive use of paper, so data is not constantly updated by officers working on that line. As a result, each department is not optimally connected in implementing effective and efficient kanban. Based on initial observations, the author found problems in the sales and ordering system, namely transactions that still use paper notes, slowing down the work process. In addition, the sales note will be at risk of being lost, recording stock of goods is still done manually, and ordering sandals is still done manually via social media. (Ahmad & Hasti, 2018). The study aimed to determine the production and sales accounting information system at PT. Gresik Cipta Sejahtera Labuhanbatu Branch.

2. RESEARCH METHOD

This study uses a descriptive qualitative method. Qualitative research identifies measures, describes, and explains the quality or superiority of social influences that cannot be explained, measured, or described similarly. Qualitative research aims to understand the phenomena of research subjects, such as behavior, perception, motivation, actions, and others (Murinanda et al., 2023). This method will help us understand the accounting information system and the effectiveness of production and sales. Data collection techniques use interviews and observations.

3. RESULTS AND DISCUSSION

3.1. Research Results

The results of interviews with PPK (District Marketing Representative) and AAE (Assistant Account Executive) at PT Gresik Cipta Sejahtera. PT Gresik Cipta Sejahtera is a subsidiary of Petro Kimia Gresik. This company is engaged in general trading, transportation, and warehousing with 98.92% share ownership of the Petrokimia Gresik Foundation and the PT Petrokimia Gresik Family Employee Cooperative (K3GP) 1.08%. There are two types of products, namely subsidized fertilizers and non-subsidized fertilizers, where the price of non-subsidized fertilizers is relatively higher than subsidized fertilizers because non-subsidized fertilizers are fertilizers that the government does not assist. Non-subsidized fertilizers are sold for a wide range, unlike subsidized fertilizers, which must be included in the service data list.

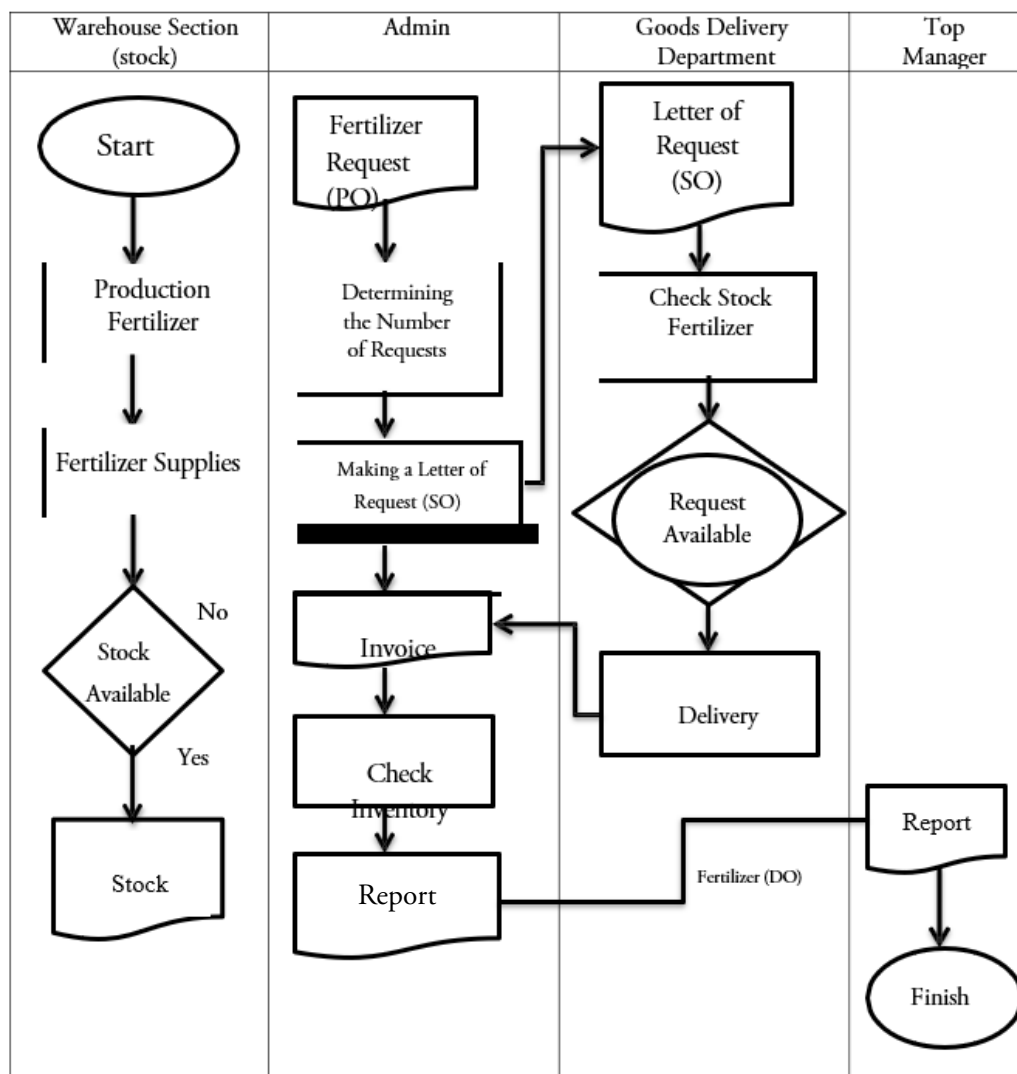


Figure 1. Production and Sales Accounting Information System at PT. Gresik Cipta Sejahtera

The production results that are directly sent to the buffer warehouse become fertilizer stock at PT Gresik Cipta Sejahtera; in the expected distribution are consumers, goods that will be distributed in the form of PO (pre-order) after being submitted and approved, then SO (sales order) will be issued. SO (sales order) is only visible in the warehouse system. After that, the goods can be taken. The taking of goods is directed to where they will be distributed but cannot just pile up goods because they must be by adjustments, and there must be a stock of goods in the buffer warehouse. All business actions, such as purchases and sales, expenses, and financial reports, are entered into the accounting information system. Merchandise inventory is another important part of the company's operations because it is a vital asset, including generating profits. Accounting aims to provide data to decision-makers. As a result, the information system plays an important role in accounting. The calculation of the effectiveness ratio from January to May 2024 is as follows:

$$\begin{aligned}
 \text{Effectivity Ratio (January)} &= \frac{\text{Sales Target}}{\text{Sales Realization}} \times 100\% \\
 &= \frac{9000}{9614} \times 100\% \\
 &= 93\%
 \end{aligned}$$

$$\begin{aligned} \text{Effectivity Ratio (February)} &= \frac{\text{Sales Target}}{\text{Sales Realization}} \times 100\% \\ &= \frac{2200}{2620} \times 100\% \\ &= 85\% \end{aligned}$$

$$\begin{aligned} \text{Effectivity Ratio (March)} &= \frac{\text{Sales Target}}{\text{Sales Realization}} \times 100\% \\ &= \frac{3300}{3678} \times 100\% \\ &= 89\% \end{aligned}$$

$$\begin{aligned} \text{Effectivity Ratio (April)} &= \frac{\text{Sales Target}}{\text{Sales Realization}} \times 100\% \\ &= \frac{1900}{2273} \times 100\% \\ &= 84\% \end{aligned}$$

$$\begin{aligned} \text{Effectivity Ratio (May)} &= \frac{\text{Sales Target}}{\text{Sales Realization}} \times 100\% \\ &= \frac{650}{740} \times 100\% \\ &= 88\% \end{aligned}$$

Table 1. Sales Effectiveness Ratio Data for PT Gresik Cipta Sejahtera Labuhan Batu Branch in 2024

Month	Effectivity Ratio
January	93%
February	85%
March	89%
April	84%
May	88%

Based on the calculation of the effectiveness ratio, the effectiveness ratio of PT Gresik Cipta Sejahtera Labuhan Batu Branch in January was 93%, in February it was 85%, in March it was 89%, in April it was 84% , and in May it was 88%. The sales effectiveness of PT Gresik Cipta Sejahtera Labuhan Batu Branch for January - May is categorized as effective.

An accounting information system (AIS) is essential for companies to help manage financial data related to production and sales. This system ensures that every transaction, including purchasing raw materials, the production process, and product sales, is recorded accurately. With AIS, we can monitor production costs in real time and ensure that the financial reports produced are by actual conditions. Production and Sales Planning. At PT. Gresik Cipta Sejahtera, the manager, has prepared a fertilizer stock inventory plan, which is then submitted to the president director. The company's activity planning team then discusses this plan. This inventory plan is a guide for the company's procurement process. The decision of the determination made by the director is part of the centralization policy of the company's organization. This decision is related to using company resources that require accountability to the president director.

3.2. Discussion

For the marketing strategy of PT Gresik Cipta Sejahtera sales, here are some approaches that the company can consider or implement to increase marketing and sales effectiveness, primarily if related

to product sales. Sales with a Pre-order System If related to products, the company can implement a pre-order system, where customers can order products before the goods are produced or shipped. This can help in stock management and reduce the risk of overstock or understock. Digital Marketing utilizes social media platforms and websites to expand market reach. Digital marketing can include advertising on social media, email campaigns, and sales through e-commerce. Optimizing the company's website to attract potential new customers through relevant content.

Management of fertilizer availability production at PT. Gresik Cipta Sejahtera The Main Production Process at this stage involves transforming raw materials into semi-finished or finished products according to the desired specifications. Packaging Products that have been produced will enter the packaging stage. Packaging is done to protect the product from damage during the distribution process and to maintain its quality until it reaches the hands of consumers. Warehousing Finished products that have been packaged are stored in a temporary storage warehouse before being distributed to consumers or distributors. Distribution and Delivery Products ready to be sold are then distributed to the market through distributors, agents, or customers according to the company's distribution plan. Production Process Evaluation After each production cycle, companies usually evaluate the entire process to identify potential improvements and efficiencies that can be improved and to adjust to market needs. This evaluation is important to ensure that the production process always runs efficiently and adjusts to changing market needs.

Purchasing price determination and supplier selection are carried out through negotiations between managers and suppliers. A team of goods inspectors carries out quality control, and the team makes decisions regarding the quality of goods. Every company, whether a trading company or a manufacturing company, always procures inventory. If not, the company risks being unable to meet consumer demand for marketed products if not supported by ideal inventory. This problem can arise because product availability is not always available. As a result, the company loses the opportunity to get the profits they should have (Lailiyah & Dewi, 2021)

4. CONCLUSION

Based on the study's results by analyzing the accounting information system on production and sales in numbers, it has been running quite well because it can be seen from the ordering and sales process that has been running according to SOP. The data produced by the accounting information system also helps in planning better sales strategies, such as pricing and monitoring sales results. This can increase sales effectiveness and achieve the company's sales targets. In addition, the company can still fulfill the government's responsibilities, namely producing enough non-subsidized fertilizer and sending it to farmers according to government requests.

Suggestions from researchers to improve the Recording System are recommended for PT Gresik Cipta Sejahtera Labuhan Batu Branch to strengthen the production and sales system by utilizing more sophisticated technology to increase accuracy and speed in decision-making related to production. Updating and upgrading the accounting information system is based on technological developments and company needs. HR development also requires continuous team member training and development by providing regular training, especially those related to accounting information systems.

REFERENCES

- Ahmad, R. F., & Hasti, N. (2018). Sistem informasi penjualan sandal berbasis web. *Jurnal Teknologi Dan Informasi*, 8(1), 67–72. <https://doi.org/10.34010/jati.v8i1.911>
- Aprilia, Y. (2022). Analisis efektivitas sistem informasi akuntansi penggajian dalam mendukung pengendalian intern pada PT. Kereta Api Indonesia (Persero) UPT. *Balai Yasa Pulubrayan*. <https://doi.org/10.30651/jms.v8i3.20387>
- Cahyaningsih, N., & Putra, I. S. (2016). Efektivitas pengendalian internal kas melalui evaluasi sistem informasi akuntansi penerimaan kas. *Riset Mahasiswa Ekonomi (RITMIK)*, 3(2), 167–184. <https://journal.stieken.ac.id/index.php/ritmik/article/view/260>
- Fatwa, M. I., Sudiarti, S., & Kusmilawaty, K. (2023). Efektivitas sistem informasi akuntansi atas pendapatan jasa penitipan barang pada PT. Pegadaian (Persero) UPS Sibuhuan. *Jurnal Ekonomika Dan Bisnis*

- (JEBS), 3(3), 428–438. <https://doi.org/10.47233/jebs.v3i3.1258>
- Febriani, S., Arif, M., & Nurwani. (2024). Analisis sistem pengendalian internal persediaan barang dagang menggunakan The Committee of Sponsoring Organization of Treadway Commission (COSO) pada distributor sparepart kendaraan bermotor Oriens Jaya Medan. *Jurnal Manajemen Dan Bisnis Ekonomi*, 2(1), 55–68. <https://doi.org/10.54066/jmbe-itb.v2i1.996>
- Febriyanti, B., Reviandani, W., & Vilantika, E. (2024). Analysis of accounts receivable turnover at PT. XXY, a manufacturing company in Gresik. In *Komitmen: Jurnal Ilmiah Manajemen*, 5(1).
- Fitriani, D., & Hwihanus, H. (2023). Pengaruh sistem informasi akuntansi dalam penerapan siklus produksi dan pengendalian internal untuk meningkatkan efektivitas kinerja UMKM. *Jurnal Kajian Dan Penalaran Ilmu Manajemen*, 1(1).
- Fitriyana, F., & Sucipto, A. (2020). Sistem informasi penjualan oleh sales marketing pada PT Erlangga Mahameru. *Jurnal Teknologi Dan Sistem Informasi*, 1(1), 105–110. <https://doi.org/10.33365/jtsi.v1i1.239>
- Hall, M. (2010). Accounting information and managerial work. *Accounting, Organizations and Society*, 35(3), 301–315.
- Hernawati, E. (2022). Pengaruh biaya overhead pabrik terhadap penjualan. *EKBIS (Ekonomi & Bisnis)*, 10(1), 50–59. <https://doi.org/10.56689/ekbis.v10i1.591>
- Hidayat, T., Ulum, R. B., & Widarman, A. (2023). Rencana kapasitas produksi pupuk dengan menggunakan metode rough cut capacity planning (RCCP) pada PT. Pupuk Kujang. *Jurnal Ilmiah Multidisiplin*, 2(04), 153–161. <https://doi.org/10.56127/jukim.v2i04.816>
- Kembaren, S. A., & Harahap, M. I. (2023). Penerapan sistem informasi akuntansi pada PT. Ciomas Adisatwa Deli Serdang. *Jurnal Ilmiah Manajemen*, 5(2), 510–515.
- Lailiyah, I. N., & Dewi, S. R. (2021). The raw material inventory accounting information system analysis.
- Lande, A., Prasetianingrum, S., Ponto, S., & Pasolo, M. R. (2022). Implementation of accounting information system for raw material control. *Jurnal Mantik*, 6(3), 2685–4236.
- Liza, M., & Arnida, W. L. (2023). Analisis sistem informasi akuntansi pendapatan penerimaan kas listrik prabayar pada PT Ajamu Faadhilah Agung. *Jurnal Riset Akuntansi*, 1(4), 88–98. <https://doi.org/10.54066/jura-itb.v1i4.842>
- Murinanda, Parinduri, A., Wahyuni, I., Samri, Y., Nasution, J., & Syafina, L. (2023). Analisis pengendalian internal dalam sistem informasi akuntansi terhadap penerimaan dan pengeluaran kas studi kasus PT. Pelabuhan Indonesia Cabang Belawan. *Jurnal Kendali Akuntansi*, 1(4), 370–377. <https://doi.org/10.59581/jka-widyakarya.v1i4.1359>