

# The Implementation of Green Accounting to Enhance the Quality of Sustainability Reports as an Implementation of Internal Audit in the Production Division Using the COSO Framework with a Digital Design Approach at CV. Anugrah Print in Surabaya

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**ABSTRACT:** This research aims to analyze the implementation of green accounting to improve the quality of sustainability reports as part of the internal audit process based on the COSO Framework in the production division of CV. Anugrah Print, Surabaya. The study adopts a qualitative descriptive method with data collection techniques including interviews, observations, and documentation. The objective is to identify how green accounting implementation can help the company manage the environmental impact of its production waste, enhance the transparency of sustainability reporting, and support operational efficiency through digital-based systems. The findings reveal that CV. Anugrah Print has not systematically implemented green accounting. Environmental costs are not adequately recorded, and the company's sustainability report does not fully reflect its social and environmental responsibilities. The implementation of an internal audit based on the COSO Framework can enhance operational risk management and environmental oversight but requires adequate digital infrastructure support. As an initial step, the company is recommended to adopt green accounting, document environmental costs in sustainability reports, and integrate digital systems to support the COSO Framework's implementation. This research provides practical contributions to CV. Anugrah Print in improving the quality of sustainability report disclosures, operational efficiency, and fulfillment of environmental responsibilities. Additionally, it offers insights for academics and practitioners regarding the importance of green accounting and internal control in supporting sustainability in small and medium enterprises.

**KEYWORDS:** Green accounting, sustainability report, COSO Framework, internal audit, CV. Anugrah Print.

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## I. INTRODUCTION

Sustainability and environmental issues are pushing businesses to adopt environmentally friendly practices, which is becoming increasingly urgent for companies, especially in the printing or digital printing services sector. Printing is one of the service industries that remains essential for all levels of society, as it mass-produces texts or images on print media like paper using printing machines. According to the Central Statistics Agency (BPS), the growth rate of micro and small manufacturing industries in the first quarter of 2019 increased by 6.88% annually compared to the first quarter of 2018. This growth was primarily driven by a 29.63% increase in the production of the printing industry. Currently, the printing industry is under public scrutiny because it provides services such as banners, letterheads, envelopes, medicine plastic bags, screen printing on clothes, hijabs, plastic, bags, backdrops, backwalls, brochures, and advertisements, which result in production waste.

The printing industry produces various types of production waste that can negatively impact the environment if not managed properly. The solid waste generated from different production stages includes paper contaminated with printer ink, reproduction films, plastic gallons, printing plates, and various other materials such as rubber cloth, ink cans, plastic wrapping, molton fabric, and sponges (Palar, 2008). During the graphic finishing stages, additional solid waste includes plastic spirals, binding wires, paperboard wrapping, and linen paper (Heryando Palar, 1994). Besides solid waste, the printing industry also produces liquid waste from the use of printer ink, developer, fixer, hardener, and other chemical solutions, such as plate cleaner, gum, fountain solution, oil, ink, and washing benzene (Antonius Bowo Wasono, 2022). The chemical elements in printing waste vary in their levels of danger, from highly polluting elements like silver (Ag) and cadmium (Cd) to less polluting ones like silicon (Si) and zirconium (Zr) (Syauqiah et al., 2020).

Some examples of hazardous waste (B3) produced in the printing industry, as listed in Regulation PP No. 85 of 1999, include silver waste used for film production, cadmium waste for electroplating processes, and ink containing activated carbon and

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synthetic dyes like tartrazine and brilliant blue, which are carcinogenic (Government Regulation of the Republic of Indonesia, n.d.). Therefore, it is crucial for the printing industry to adopt environmentally friendly waste management systems by implementing green accounting to reduce pollution impacts and prevent reputational damage, which could adversely affect financial report quality and sustainability performance if the company does not fulfill its environmental, economic, and social responsibilities (Putri et al., n.d.).

As sustainability becomes a growing concern in Indonesia, many stakeholders are urging businesses of all sizes to adopt sustainable and environmentally friendly practices. Ignoring these practices is predicted to worsen environmental damage by 2040-2050. As a country with relatively vast forest areas compared to European nations, Indonesia must balance its economic development with environmental preservation ("Predicted, Environmental Damage Will Worsen in 2040," *Suara Pembaharuan*, April 28, 2011). Accounting also plays a role in environmental preservation by disclosing environmental costs voluntarily in financial reports. This system, which includes accounts related to environmental costs, is known as green accounting or environmental accounting (Yoshi Aniela, 2011). Green accounting involves collecting, analyzing, estimating, and preparing reports on environmental and financial data to reduce environmental impact and costs (Kusumaningtias Rohmawati, n.d.), enabling companies to disclose their sustainability reports.

CV Anugrah Print, located at Jl. Rangkah 6 No. 49H, Surabaya, is a printing business established in 1996. Over the years, the demand for its printing services has grown significantly. The company has produced thousands of printed materials, including paper products, plastic screen printing, t-shirts, stickers, calendars, maps, laboratory envelopes, and banners. At one point, it even printed one ton of food-grade plastic. CV Anugrah Print generates two types of production waste: solid waste and liquid waste. The company faces difficulties in managing its production waste, which affects the quality of its financial reporting and its sustainability report, which has yet to be disclosed. Therefore, implementing green accounting is expected to help CV Anugrah Print manage its production waste effectively. Green accounting can separate costs and benefits related to environmental conservation within the company's activities, supporting sustainable development.

Green accounting requires robust internal controls to ensure systematic and measurable implementation aligned with sustainability goals. The COSO Framework (Committee of Sponsoring Organizations of the Treadway Commission) serves as a structured approach to achieving these goals. Experts suggest that COSO Framework in green accounting allows companies to manage environmental impacts transparently and systematically (COSO, 2017). This approach helps identify environmental risks early and address them effectively. With the integration of digital collaboration, internal audit has evolved from merely identifying problems to providing assurance, solving issues, and generating insights. Digitalization in accounting and auditing, particularly under COSO, enhances data processing accuracy, speed, and transparency, improving internal controls and the quality of financial and sustainability reporting.

The implementation of green accounting, supported by COSO Framework, can address the environmental challenges faced by CV Anugrah Print, particularly in preparing sustainability reports. Sustainability reports detail the economic, environmental, and social impacts of the company's activities (Natalia, n.d.). Besides standard financial statements like income statements, balance sheets, and cash flow statements, companies should include information on social and environmental aspects, such as carbon emission levels, as suggested in PSAK No. 1 (Indonesian Financial Accounting Standards). The ultimate goal of this study is to provide practical solutions for minimizing environmental impacts while enhancing the sustainability report of CV Anugrah Print. Through green accounting and robust internal control via the COSO Framework, the company can improve transparency, mitigate environmental risks, and strengthen its position in practicing sustainable business operations.

## **II. RESEARCH QUESTIONS**

1. How can the implementation of green accounting help CV Anugrah Print manage the environmental impacts of its production waste?
2. What is the role of the COSO Framework in supporting the implementation of green accounting at CV Anugrah Print?
3. What role does digital-based internal audit play in contributing to CV Anugrah Print?
4. To what extent can the implementation of green accounting improve the quality of CV Anugrah Print's sustainability report?
5. How can the disclosure of information regarding environmental impacts in the sustainability report be improved to make a more significant contribution to environmental protection at CV Anugrah Print?

## **III. RESEARCH OBJECTIVE**

1. TO IDENTIFY HOW THE IMPLEMENTATION OF GREEN ACCOUNTING CAN MANAGE THE ENVIRONMENTAL IMPACTS OF PRODUCTION WASTE AT CV ANUGRAH PRINT.

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2. TO ANALYZE HOW THE COSO FRAMEWORK CAN SUPPORT AND ENHANCE THE EFFECTIVENESS OF GREEN ACCOUNTING IMPLEMENTATION IN THE COMPANY.
3. TO PROVIDE A DESIGN FOR AN ACCOUNTING INFORMATION SYSTEM THAT SUPPORTS BUSINESS PROCESSES FOR GREATER OPTIMIZATION.
4. TO ASSESS THE IMPLEMENTATION OF GREEN ACCOUNTING IN THE DISCLOSURE OF THE QUALITY OF CV ANUGRAH PRINT'S SUSTAINABILITY REPORT.
5. TO RECOMMEND IMPROVEMENTS IN THE DISCLOSURE OF ENVIRONMENTAL IMPACT INFORMATION IN THE SUSTAINABILITY REPORT TO MAKE A MORE SIGNIFICANT CONTRIBUTION TO ENVIRONMENTAL PROTECTION.

## **IV. THEORITICAL REVIE**

### **Internal Audit**

Internal audit control, according to Pagach & Wiecezorek-Kosmala (2020), is an integral part of business process management aimed at ensuring that financial and operational reporting is effective, efficient, reliable, and accurate. Its primary objectives are to safeguard company assets, ensure compliance with applicable regulations and policies, and prevent fraud and irregularities. Regular testing and monitoring are essential elements of internal audit control to assess the effectiveness of internal controls. The audit findings are reported to management and the board of directors, accompanied by recommendations for improvements. Importantly, responsibility for internal audit control extends beyond the audit department, involving all levels of management and staff to help the company achieve its objectives.

Ratnawati & Hidayat (2022) describe internal audit as an independent assurance and consulting activity designed to add value and improve organizational operations. Through a systematic and disciplined approach, it evaluates and enhances risk management, control, and governance effectiveness. The internal audit function must adapt to current and future trends, emphasizing the importance of digital capabilities and data-driven systems to ensure strategic assurance and effectiveness. The use of Computer-Assisted Audit Tools (CAAT) significantly improves internal audit performance, despite the risks of network failures and data loss inherent in digital systems.

Arens (2008) defines internal control as a process designed to provide reasonable assurance that management objectives related to financial reporting reliability, operational efficiency, and compliance with regulations are achieved. Similarly, Agoes (2012) emphasizes that internal control involves the board of directors, management, and personnel, aiming to ensure reliable financial reporting, effective operations, and legal compliance.

### **COSO Framework**

According to Graham Lynord (2015), controls are essential for addressing various management weaknesses, information processing gaps, or oversight deficiencies that often contribute to business and accounting failures. The COSO framework is designed to help organizations understand and prioritize risks, creating strong connections between risks, strategies, and business performance. This framework offers a structured approach to internal controls, aiding organizations in identifying, assessing, and mitigating risks associated with digital financial functions. When organizations evaluate the potential use of blockchain technology through the COSO lens, it enables the board of directors and senior executives to better understand the context and make informed decisions regarding the potential and application of technology in relation to internal controls (COSO, 2021). The COSO framework's control environment comprises eight interrelated components that work together to support the achievement of an entity's mission, strategy, and business objectives:

1. Internal Environment establishes the foundation for how risks are perceived and addressed within the organization. This includes the organization's risk philosophy, integrity, ethical values, and operating environment.
2. Objective Setting, objectives must be defined before management can identify potential events that may affect the organization's success. This ensures that management sets goals aligned with the company's mission and consistent with its risk appetite.
3. Event Identification, both internal and external events affecting the achievement of objectives must be identified to distinguish between risks and opportunities.
4. Risk Assessment, risks are analyzed in terms of their potential impact and likelihood, enabling management to understand and manage risks effectively to minimize adverse effects on the organization.
5. Risk Response, management determines the appropriate response to risks, such as avoiding, accepting, reducing, or sharing them.
6. Control Activities, policies and procedures are established and implemented to ensure effective responses to risks.

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7. Information & Communication, relevant information is identified, captured, and communicated effectively to enable personnel to understand and execute their responsibilities.
8. Monitoring, the entire Enterprise Risk Management (ERM) process is monitored and modified as necessary. Monitoring can be achieved through ongoing management activities, separate evaluations, or both.

This structured approach helps organizations enhance operational effectiveness, financial reliability, and compliance with applicable regulations, making COSO a crucial tool for risk management and internal control.

### **GREEN ACCOUNTING**

According to Cohen & P. Robbins (2011), green accounting, also known as environmental accounting, is defined as: "A style of accounting that includes the indirect costs and benefits of economic activity—such as environmental effects and health consequences of business decisions and plans." This means that environmental accounting incorporates the indirect costs and benefits arising from economic activities, including environmental impacts and the health outcomes of business decisions and strategies. The United States Environmental Protection Agency (US EPA) defines environmental accounting as a tool to present environmental costs to corporate stakeholders. It emphasizes identifying ways to reduce or avoid costs while simultaneously improving environmental quality.

Furthermore, Yoshi Aniela (2012) defines green accounting as a type of accounting that identifies, measures, presents, and discloses costs associated with corporate activities that are linked to environmental issues. Environmental accounting fundamentally requires full awareness from companies or organizations benefiting from the environment. It is essential for businesses or other organizations to enhance their efforts toward sustainable environmental conservation. According to Wiwik Fitria Ningsih & Ratih (unspecified year), the application of environmental accounting concepts encourages companies to minimize the environmental issues they face. This approach highlights the importance of integrating environmental considerations into corporate strategies, ensuring that businesses balance profitability with ecological sustainability.

### **GLOBAL STANDART INITIATIVE (GRI)**

The GRI Sustainability Reporting Standards (GRI Standards) are designed to ensure transparency regarding how organizations contribute or strive to contribute to sustainable development. Through their activities and business relationships, organizations can impact the economy, environment, and society, either positively or negatively, thereby influencing sustainable development. Sustainable development is defined as *"development that meets the needs of the present without compromising the ability of future generations to meet their own needs."*

The primary purpose of sustainability reporting using the GRI Standards is to enhance transparency regarding how organizations contribute to or attempt to contribute to sustainable development (GRI 1: Foundation 2021, 2022). The GRI Standards enable organizations to publicly disclose their most significant impacts on the economy, environment, and society, including human rights impacts and the ways they manage these impacts. This enhances transparency about organizational impacts and strengthens accountability. The standards provide disclosures that allow organizations to report information on their impacts in a consistent and credible manner.

This consistency improves global comparability and the quality of reported information, supporting information users in making informed assessments and decisions about the organization's impacts and contributions to sustainable development. Information reported using the GRI Standards can help stakeholders determine whether an organization meets the expectations established in these instruments (GRI 3: Material Topics 2021 Universal Standards, 2023).

### **SUSTAINABILITY REPORT**

According to Aditya Setiani et al. (2021), a sustainability report is not just about financial performance, but also includes non-financial information such as the company's social and environmental activities. These reports enable companies to grow sustainably. Sukoharsono Eko Ganis (2021) defines sustainability reports as documents that companies create to measure, disclose, and demonstrate their efforts to become responsible corporate entities for all stakeholders, aligning with the company's goal to contribute to sustainable development. Companies must collect, control, and report sustainability-related information to both internal and external parties in their sustainability reports.

A sustainability report serves as a communication tool where there is interaction between the company and stakeholders. It helps in decision-making for both investors and management. The report aims to reflect the company's performance towards sustainable development and adheres to standards and disclosure principles in three key areas: economic, social, and environmental (Sukoharsono Eko Ganis, 2021). The concept of the triple bottom line is a fundamental principle for companies to not just focus

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on profit but also consider the welfare of society and the environment. The triple bottom line framework is based on three aspects: financial (Profit), social (People), and environmental (Planet).

Sukoharsono Eko Ganis (2021) in his book *Akuntansi Keberlanjutan* explains several benefits of sustainability reporting, including:

1. Enhancing organizational trust and brand value
2. Generating a competitive advantage
3. Providing comparisons and benchmarks against competitors
4. Increasing transparency and accountability within the organization
5. Signaling superior competitiveness through reporting activities
6. Setting and supporting employee performance motivation, internal information, and control processes
7. Sustainability as an indicator for overall performance
8. Validating activities and products/services of an organization that may create social and environmental impacts.

## ACCOUNTING INFORMATION SYSTEM

According to Hwihanus (2023), an Accounting Information System (AIS) enhances efficiency and effectiveness in accounting processes, from recording transaction evidence, journalizing, to producing accurate and timely financial statements. AIS is a system that manages data, coordinated by people, devices, and methods working synergistically within an organized structure to produce relevant accounting information for decision-making (Romney & Steinbart, 2018). Furthermore, AIS plays several key roles within an organization, including:

1. **Bookkeeping:** Used to record financial transactions and store necessary data. Features like autonumbering, data validation, and short-term storage help provide accurate and timely financial reports.
2. **Reporting:** AIS generates timely and accurate financial reports such as income statements, balance sheets, cash flows, and equity changes to assist management in analyzing performance and making decisions.
3. **Analysis:** AIS is used to analyze recorded financial data, such as financial ratio analysis, trend analysis, variance analysis, comparative analysis, market share analysis, common size analysis, and break-even analysis to support management decision-making.
4. **Budgeting:** AIS helps in preparing financial plans for future periods by forecasting revenues and expenditures over a set period.
5. **Task Completion:** AIS utilizes available resources to improve effectiveness. Methods to enhance effectiveness include automation, system integration, periodic monitoring, employee training, and responsive technical support.
6. **Compliance:** AIS helps companies ensure compliance with established regulations and standards.

According to Mulyadi (2023), there are three main functions of an AIS. The first function is collecting and storing data related to the organization's activities, resources involved, and the individuals performing those activities. This data is made easily accessible for review by management, employees, and external stakeholders. The second function is processing data into useful information for management in decision-making related to planning, execution, and oversight. The third function is providing an effective control system to protect company assets and ensure that asset data is always available, accurate, and reliable when needed. As per Susantob Azhar (2017), an Accounting Information System is a collection of integrated subsystems/components, both physical and non-physical, that are interrelated and cooperate harmoniously to process financial transaction data into financial information.

## DISCUSSION

CV Anugrah Print in Surabaya generates two types of industrial waste, namely solid waste and liquid waste. The company is facing difficulties in managing the waste generated from its production processes, which has impacted the quality of its financial statements and sustainability reports, which have not been disclosed properly. Currently, CV Anugrah Print is dealing with serious issues related to the management of its production waste. The waste produced, including paper scraps, plastic materials, and chemical residues such as printing ink, banner ink, emulsions, double-tip plastic, solvents, and aluminum, is often disposed of carelessly into drainage systems (gutters). The disposal of these chemicals without proper treatment can lead to environmental pollution, both in soil and water, which in turn can pose health risks to the surrounding community.



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The current situation at CV Anugrah Print regarding waste management still lacks processing or handling according to GRI standards. This practice not only pollutes the surrounding environment but also indicates the absence of a structured and sustainable waste management system within the company. The issue arises from the lack of specific procedures or policies related to waste management, causing the production team to often be confused about the best way to handle unused materials, which results in improper disposal that does not meet environmental standards.

In the analysis of the current situation, CV Anugrah Print cannot be considered as fulfilling its environmental responsibilities because environmental costs have not been accounted for or allocated for environmental protection, and these costs have not been included in the financial reports.

This situation becomes a major concern in the efforts to improve environmental management at CV Anugrah Print. Given the potential environmental and public health risks caused by uncontrolled waste disposal, the company urgently needs to implement a more effective waste management system. One possible step is to adopt green accounting to record and report environmental costs and to utilize recycling or waste treatment approaches more systematically. This initiative is expected to reduce the negative impact on the environment while simultaneously improving the operational efficiency of the company.

CV Anugrah Print faces significant challenges in financial and accounting management. Currently, the company's financial reports are not structured properly, particularly in separating personal costs from production costs. This leads to inaccuracies in cost recording, making it difficult to determine the actual profitability. The mixing of personal expenses with operational costs complicates financial analysis and reduces transparency in financial reporting.

At the operational level, there are coordination issues between divisions, with the finance, administration, and production departments often lacking clear interconnectivity. This results in potential misunderstandings and inefficiencies. The absence of an integrated system causes each division to operate separately, which hinders collaboration and makes cross-checking processes difficult. As a result, the necessary information is often delayed or inaccurate, disrupting decision-making processes.

CV Anugrah Print is also facing a major challenge regarding digitalization and the integration of its operational systems, as it lacks an IT department to support these efforts. The absence of an IT system affects several crucial aspects, such as financial recording, raw material inventory management, and communication between divisions. All data recording and reporting are done manually using physical records or spreadsheets, which increases the risk of data errors and extends the time required for each transaction. Additionally, cross-checking difficulties arise, as data cannot be accessed in real-time by all departments that need it.

For example, the finance department struggles to ensure the accuracy of financial reports due to the lack of a centralized system that automatically records transactions. When data from the production and purchasing departments are communicated manually, there is a risk of inaccurate or missing records. This results in frequent errors in recording raw material costs, chemical usage, and other operational expenses. Moreover, without an integrated system, personal expenses and operational costs often become mixed, which can affect profitability analysis and financial transparency. This condition presents a challenge for the company to comply with the Indonesian Financial Accounting Standards (SAK), as the recorded data may not reflect the true financial condition.

In addition to the finance department, both the production and purchasing divisions are also impacted by the lack of an IT system. The production division, responsible for managing raw materials such as paper, ink, and other chemicals, does not have access to real-time stock data. When large quantities of raw materials are needed, stock verification becomes slow because it requires manual physical checking. Similarly, the purchasing division lacks a centralized system to record and verify incoming goods. This results in discrepancies between purchase data and available stock in the warehouse, leading to inefficiencies in inventory management.

The absence of digitalization also affects interdepartmental effectiveness. Without an integrated IT system, coordination between divisions such as production, finance, and purchasing becomes inefficient. Communication processes, which are still conducted manually or through physical documents, often lead to information errors or delays in decision-making. When the finance

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department needs data on raw material usage from the production division for cost recording, the data may not be readily available or accurate, causing delays in financial reporting.

The lack of an IT system also makes it difficult to implement effective internal controls. For instance, in monitoring the use of chemicals that could potentially pollute the environment, the absence of a digital system that can monitor the usage and waste of chemicals in real-time prevents the company from ensuring that all chemicals are managed properly according to safe procedures. This not only risks environmental contamination but also presents potential legal issues related to compliance with environmental regulations.

Discussion and Implementation of the COSO Framework CV Anugrah Print faces significant challenges in managing production waste and preparing financial reports that do not accurately reflect environmental costs. The improper disposal of both solid and liquid waste leads to environmental pollution, which can impact the company's reputation and compliance with regulations. Furthermore, the absence of a technology-based management system results in errors in cost recording and the mixing of personal expenses with operational costs, affecting the transparency of financial reports.

The COSO Framework approach is used to evaluate weaknesses in environmental and accounting management systems, while also providing targeted solutions to help the company achieve its main goals of improving waste management, enhancing operational efficiency, and ensuring transparency in financial reports and sustainability. The internal audit based on the COSO Framework, in relation to the existing conditions at CV Anugrah Print, is systematically discussed by the research team and illustrated in the following table:

According to the COSO Framework, CV Anugrah Print faces challenges in waste management due to the lack of proper controls in managing both solid and liquid waste. This is because there are no clear standard operating procedures (SOPs) governing the segregation and management of waste. The lack of a systematic approach leads to negative environmental impacts, such as soil and water pollution. The COSO Framework consists of eight key components that can assist the company in improving waste management and managing environmental risks in a more structured and effective manner.

## **1. Internal Environment**

The internal environment of the company needs to be strengthened with a culture that supports good waste management practices. Currently, the company does not have a culture that takes environmental responsibility seriously, which results in poor waste management practices. Therefore, the company must instill environmental awareness in all elements of the company, establishing ethical values that uphold environmental responsibility.

## **2. Objective Setting**

CV Anugrah Print must set clear, measurable objectives related to waste management. These objectives should include efficient waste segregation, environmentally friendly processing of liquid and solid waste, and the disclosure of environmental costs in the financial reports. Setting specific goals will help the company focus on achieving sustainable waste management standards.

## **3. Event Identification**

CV Anugrah Print must identify all activities that generate waste, both internal and external, and analyze the impact of each activity. With clear identification, the company can separate which activities pose high risks to the environment and which ones could offer benefits if managed well, such as recycling raw materials.

## **4. Risk Assessment**

Once waste-generating activities are identified, the company must assess the risks associated with the environmental, health, and reputational impacts of the waste. This risk assessment will help the company prioritize waste management activities and mitigate risks that could harm the company, such as pollution that could lead to fines or damage the company's reputation.

## **5. Risk Response**

Based on the risk assessment results, the company must establish strategies to respond to the identified risks. For instance, if the liquid waste contains hazardous chemicals, the company needs to implement safe and environmentally friendly disposal procedures. If solid waste can be recycled, the company should design a segregation and processing system to maximize the value of the waste.

## **6. Control Activities**

The company must establish standard operating procedures (SOPs) for waste management, which include steps for segregation, processing, and reporting of waste. These control activities must be diligently implemented and regularly monitored to ensure that each stage of waste management is carried out in accordance with company policies and environmental regulations.

## **7. Information and Communication**

To ensure proper waste management, the company needs to build an integrated information system that can track, monitor, and report waste data in real-time. Additionally, effective communication between divisions, such as production, finance, and

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environmental teams, must be maintained so that data on waste and environmental costs can be exchanged easily and in a timely manner.

## 8. Monitoring

The company needs to regularly monitor the waste management practices that have been implemented. Internal audits and periodic evaluations of the waste management process will help the company determine how effective the system is. By using key performance indicators (KPIs) related to waste management, the company can assess the success of the program and make improvements if necessary.

## RECOMMENDATIONS

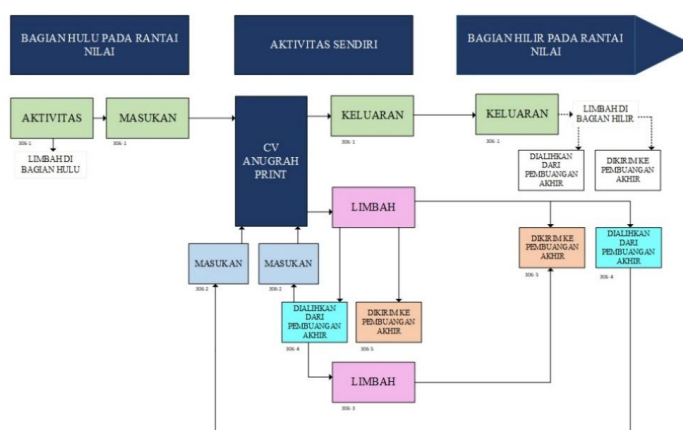
### 1. Implementation Green Accounting

The implementation of green accounting at CV Anugrah Print involves several key steps focused on managing environmental costs and ensuring transparent reporting of environmental impacts. This includes the recording of waste, energy usage, and the costs of waste treatment generated during the production process. Through this recording, the company can identify areas that need improvement to reduce both costs and environmental impact.

Each production activity generates waste, both solid and liquid. Waste treatment costs should be recorded separately to support transparency in financial reports and sustainability reports. Examples of this recording include waste collection costs, the expenses incurred for separating recyclable and non-recyclable waste, liquid waste management costs, such as for disposing of ink or chemicals, and solid waste management costs, such as for handling leftover paper and plastic used in production. Environmental costs will be voluntarily incurred by the owner of CV Anugrah Print and will be recorded in the financial statements. The following is the latest component of the environmental cost account included in CV Anugrah Print's financial statements for the year 2024, as shown below:

<b>Beban Administrasi</b>		
Beban Sewa	Rp	50.000.000
Beban Telepon, Listrik & gaji	Rp	13.440.000
Beban Reparasi & Pemeliharaan	Rp	10.000.000
Beban depresiasi kendaraan	Rp	312.000.000
Beban depresiasi peralatan	Rp	20.000.000
Beban bahan habis pakai	Rp	30.000.000
Beban administrasi lainnya	Rp	10.000.000
Beban Lingkungan Hidup	Rp	3.000.000
<b>Total Beban Administrasi</b>	<b>Rp</b>	<b>448.440.000</b>
<b>Total Beban Usaha</b>	<b>Rp</b>	<b>745.440.000</b>

### 2. Solid and Liquid Waste Management Process



The waste management process at CV Anugrah Print is regulated according to GRI 306-1 standards, with a focus on each stage of the production process. Below is an explanation of the waste management flow to ensure optimal handling of waste:

- Upstream in the Value Chain** The process starts from the upstream stage, which involves the procurement of raw materials such as paper, plastic, ink, emulsion, and aluminum plates. The materials entering CV Anugrah Print are recorded and monitored to ensure efficient usage. These materials will be allocated to production activities.
- Input:** Raw materials such as paper and ink are used as primary inputs. This process is recorded as 306-1, which tracks the source of materials entering the production process.



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2. **Upstream Waste:** If any material is unfit for use (e.g., damaged raw materials), it is separated as waste and recorded.
2. **Production Activities** During the production stage, raw materials are used to produce printed products such as brochures, books, or banners. This process involves several activities:
  1. **Graphic Design and Screen Printing** using ink, solvents, and adhesives.
  2. **Printing Process** involving the use of aluminum plates, printing ink, and paper.
  3. **Waste Management During Production:** The production generates waste such as paper scraps, plastic double tape, and aluminum plates that are no longer used and are allocated to the waste management section. Liquid waste, such as ink residues and cleaning chemicals, is collected in special containers for further processing. All waste generated during this activity is recorded as 306-2 (Waste Inputs).
3. **Reporting Organization** CV Anugrah Print acts as the reporting organization responsible for all waste generated from its production processes. The waste management system consists of:
  1. **Waste Separation:** Solid waste (paper, plastic, aluminum) is separated from liquid waste (ink residues, cleaning chemicals).
  2. **Waste Diversion:** Usable waste is diverted for recycling (306-4) or reuse, such as leftover paper that can still be utilized.
  4. **Waste Sent for Final Disposal** Waste that cannot be recycled or reused will be sent to final disposal facilities, such as:
    1. **Solid Waste:** Sent to solid waste processing facilities for destruction or treatment according to procedures.
    2. **Liquid Waste:** Sent to liquid waste processing facilities for chemical treatment to prevent environmental contamination. All processes are recorded as 306-5, which refers to the final disposal of waste.

### 3. Digital Design Implementation at CV Anugrah Print

LAMPIRAN 8. Desain Digital

1) Dashboard

Area	Indikator Utama	Keterangan
Keuangan	Laba Bersih	Cek Lembar Keuangan
Produksi	Efisiensi Produksi	Cek Lembar Produksi
Pemasaran	Penjualan	Cek Lembar Pemasaran
Pengelolaan Limbah	Jumlah Limbah Dikelola	Cek Lembar Limbah

2) Keuangan

Tanggal	Deskripsi	Pendapatan (Rp)	Pengeluaran (Rp)	Biaya Ungkulan (Rp)	Saldo Akhir (Rp)

3) Produksi

Tanggal	Produk	Jumlah Diproduksi	Bahan Baku Digunakan	Limbah Dihilangkan	Risiko CV

4) Pemasaran

Tanggal	Nama Pelanggan	Produk Dibeli	Jumlah (Rp)	Umpan Balik Pelanggan

5) Pengelolaan Limbah

Tanggal	Jenis Limbah	Jumlah Limbah	Cara Pengelolaan	Hasil Pengelolaan

6) Kolaborasi Antar Divisi

Tanggal	Divisi Terlibat	Topik Diskusi	Rencana Tindak Lanjut

CV Anugrah Print needs to take strategic steps toward operational modernization. It is recommended that CV Anugrah Print immediately implement a digital design system to support the integration of various divisions, including finance, administration, production, and marketing. This digitalization aims to improve work efficiency, data accuracy, and facilitate better coordination among divisions, making the decision-making process faster and more effective. Moreover, implementing this digital system can support better tracking of environmental costs and waste management, which can then be integrated into the Sustainability Report. The digital design created using Excel is intended to simplify data management across various divisions at CV Anugrah Print, focusing on information integration and collaboration among divisions. Each section of this design has a specific function that supports one another to enhance work efficiency and data transparency.

The main dashboard is designed as an integrated information hub displaying key indicators from each division. This data covers four important areas: Finance, with the main indicator being net profit, which represents the overall financial performance; Production, measured by production efficiency, which compares the raw materials used to the waste generated; Marketing, with

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the main indicator being total sales, reflecting the results of marketing activities; and Waste Management, which records the amount of waste successfully managed to ensure the company meets environmental sustainability standards. Each indicator is linked to or referenced from the respective division's worksheet, making it easier for users to track detailed data.

The finance sheet contains detailed records of financial transactions, including the date, transaction description, revenue, expenses, environmental costs, and the ending balance. This data provides a comprehensive overview of the company's cash flow, including specific allocations for environmental management activities. This supports financial transparency while ensuring that environmental funds are used effectively.

The production sheet records daily operational data. Information captured includes the products produced, the quantity produced, raw materials used, waste generated, and production efficiency. Efficiency is calculated to determine how well the production process minimizes waste. This data helps management assess the production process and plan for improvements.

The marketing sheet focuses on customer data and sales transactions. Each entry includes the transaction date, customer name, purchased products, revenue, and customer feedback. This data is essential for understanding customer needs and preferences, and it forms the basis for evaluating marketing strategies. Additionally, customer feedback can be used to improve product quality and services.

The waste management sheet is dedicated to recording the management of waste generated by the company. Information captured includes the type of waste, the amount of waste generated, the management methods applied, and the results of the management. This sheet serves as a monitoring tool for the waste management division to ensure that waste is handled according to environmentally friendly procedures.

The collaboration sheet serves as a tool for recording and monitoring collaboration among divisions. Information captured includes the date of discussions, the divisions involved, discussion topics, and follow-up plans. This section is designed to facilitate better communication between divisions, ensuring that every challenge can be addressed collectively.

For example, the production division can collaborate with the waste management division to reduce waste generated during the production process. The finance division can support other divisions by allocating a specific budget for waste management or other sustainability initiatives. The marketing division can provide customer data and feedback to the production division to create products that better meet market demands.

Overall, this digital design promotes data integration across divisions, enabling data-driven decision-making, and supports the company's sustainability goals. This approach not only improves operational efficiency but also strengthens synergies between divisions to achieve optimal results. The digital design that can be adopted is provided in the appendix to facilitate initial implementation.

## **V. CONCLUSIONS**

Based on the research findings, the implementation of green accounting at CV Anugrah Print has proven to be crucial in managing the environmental impacts of production waste. Green accounting provides a systematic approach to recording and managing environmental costs, including the management of both solid and liquid waste, which is currently not being done in a structured manner. By implementing the separate recording of environmental costs in the financial statements, the company can enhance transparency and accountability to stakeholders, as well as strengthen its image as a socially and environmentally responsible company.

The implementation of the COSO Framework plays a crucial role in supporting the application of green accounting. This framework helps create a better control environment, allowing the company to design waste management policies that align with international standards, such as GRI. By implementing internal controls based on COSO, CV Anugrah Print can separate operational costs from environmental costs and manage sustainability-related risks more effectively.

The role of digital-based internal audit also stands out in improving efficiency and transparency. Digitalization enables real-time tracking of waste and environmental cost management, facilitates cross-division monitoring, and supports more optimized business processes. The finance and production divisions recognize the importance of recording environmental costs to improve operational efficiency and the transparency of sustainability reports.

In terms of sustainability reporting, the application of green accounting has the potential to improve the quality of environmental disclosures. By systematically recording waste management costs and activities, the company can compile more informative sustainability reports. This not only enhances the company's competitiveness but also strengthens its image among customers who are increasingly concerned about the environment.

Overall, this research shows that the implementation of green accounting, supported by the COSO Framework and digitalization of internal audits, can help CV Anugrah Print manage production waste more effectively, improve the transparency of sustainability reports, and make a significant contribution to environmental protection and sustainable business growth.

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