



EUROPEAN
INTERNATIONAL
UNIVERSITY



COVER PAGE AND DECLARATION

	Master of Business Administration (M.B.A.)
Specialisation:	
Affiliated Center:	
Module Code & Module Title:	
Student's Full Name:	
Student ID:	
Word Count:	
Date of Submission:	

I confirm that this assignment is my own work, is not copied from any other person's work (published/unpublished), and has not been previously submitted for assessment elsewhere.

E-SIGNATURE:

DATE:

EIU Paris City Campus

Address: 59 Rue Lamarck, 75018 Paris, France | **Tel:** +33 144 857 317 | **Mobile/WhatsApp:** +33607591197 | **Email:** paris@eiu.ac

EIU Corporate Strategy & Operations Headquarter

Address: 12th Fl. Amarin Tower, 496-502 Ploenchit Rd., Bangkok 10330, Thailand | **Tel:** +66(2)256923 & +66(2)2569908 | **Mobile/WhatsApp:** +33607591197 | **Email:** info@eiu.ac

Table of Contents

Introduction.....	2
1- Big Green Tractor's Operational Industrial Streamlining Procedural Guide	3
a) Cost-Efficient manufacturing processes:	3
b) A plan to minimise defects throughout the manufacturing process:	5
c) Using modern tools to create a greener process.....	7
2- Developing a socially responsible operational guide for the Big Green Tractor's pollutants	9
a) Industrial standards on disposal of chemical waste.	10
b) Green alternatives to the traditional manufacturing process.....	13
Conclusion	15
References.....	16

Introduction

Operations management is a field of business concerned with the production of goods and services, and it entails the responsibility of ensuring that business operations are efficient in terms of utilizing as few resources as possible and effective in terms of meeting customer needs. It is concerned with managing the process by which inputs (materials, labor, and energy) are converted into outputs (in the form of goods and services).

Operations traditionally refer to the introduction of goods and services separately; however, the distinction between these two primary types of operations is becoming increasingly blurred as manufacturers tend to combine their product and service offerings. Generally speaking, the objective of operations management is to increase the proportion of value-added activities in any given process. For optimal enterprise performance, these value-adding creative activities must be fundamentally aligned with market opportunity.

And this is what we will discuss within the Big Green Tractor Company.

1- Big Green Tractor's Operational Industrial Streamlining Procedural Guide

The Big Green Tractor Company is an Indonesian production company located in Palembang. It is a manufacturing facility. In recent years, the organization's progress has regressed because of low productivity and environmental productivity. The company must restructure its operations in order to increase competition in the sector.

So the goal of this streamlining procedural guide is to encourage growth while also making the company more efficient, and my recommendation will include three main points, which are:

- a) Cost-Efficient manufacturing processes.
- b) A plan to minimise defects throughout the manufacturing process.
- c) Using modern tools to create a greener process.

a) **Cost-Efficient manufacturing processes:**

Material cost reduction

this is a remarkable methods Big Green Tractor Company can consider to become more cost-effective. Multiple executives indicate that the organization places a significant emphasis on acquiring high-quality raw materials and spare parts for use in the production of tractors.

Big Green Tractor Company can reduce this enormous expense through savvy supplier negotiations.

To achieve this objective, strategic managers may solicit bids from suppliers and award contracts to the lowest bidder.

It can be determined that the organization may consider multiple suppliers for the acquisition of identical components and materials. Consequently, suppliers can be convinced to reduce the material's price.

In this manner, procurement costs can be reduced, resulting in inexpensive tractor production.

Automation Technology

Is a suggestion made to Big Green Tractor Company for streamlining its manufacturing operations and achieving cost-effectiveness. There are numerous automation programs available today that can be used to manage all manufacturing processes in businesses.

The Big Green Tractor Company may use manufacturing and assembly line automation technology.

In this way, robotic machines can be used to paint and assemble tractors, which is much more likely to speed up the production process and increase productivity. Also, automation technology may make the company less reliant on human labor, which could lower its wage costs.

Lean Manufacturing

Big Green Tractor may employ lean manufacturing techniques to control manufacturing costs. Thus, low-value tasks and less significant processes can be eliminated from the company's production facility.

Lean manufacturing may enable Big Green Tractor to concentrate on the practices and procedures that are crucial to the tractor manufacturing process. In this way, the company's potential for incurring additional expenses can be reduced.

Scrap Selling

is a significant practice for Big Green Tractor's cost-effective operation in the Indonesian commercial markets. Several executives show that the production and manufacturing departments make a lot of waste that is often thrown away by the organization.

Big Green Tractor may consider selling the scrap generated during the production of tractors to the appropriate vendors. The organization may deploy a team of dedicated workers for this purpose, who can connect with vendors and sell the scrap at a fair price.

In this manner, Big Green Tractor's manufacturing expenses can be reduced and its profitability can increase.

Reducing Energy Consumption

Such an important factor to consider in organizations is their energy consumption, which leads to a significant increase in operational costs. Big Green Tractor's production and manufacturing division uses a lot of electricity and other types of energy, like gasoline, diesel, and others, to do its work.

The organization can become less reliant on energy by using new, easy, and cheap methods like solar and wind power.

b) A plan to minimise defects throughout the manufacturing process:

It is common knowledge that efficient production requires a minimal number of product defects. The greater the number of flaws in a product, the greater the associated expenses and length of time.

and the following procedures comprise the plan to minimize defects throughout the manufacturing process of our company.

Inspecting

We should routinely inspect their production processes to determine the root causes of defects. Ultrasonic, particle, vibration, and resistive monitoring technologies are now readily available and can be used to eliminate manufacturing defects.

Big Green Tractor will implement Six Sigma strategies in an effort to improve manufacturing quality by identifying and removing the causes of defects and minimizing variability in manufacturing and business processes. This is accomplished by utilizing empirical and statistical quality management techniques and by employing Six Sigma specialists.

Each Six Sigma project follows a set method and has clear value goals, like lowering pollution or making customers happier.

And Conducting audits of material obtained from suppliers and vendors is a further exceptional procedure that can be recommended to Big Green Tractor for minimizing manufacturing process defects. The organization must conduct internal and external audits to assess the quality of materials sourced from various vendors.

In this manner, it is possible to determine if acquired materials, such as spare parts and many others, are defect-free. Also, a lot of attention should be paid to figuring out if the use of procured materials after the sale of the tractors made by Big Green Tractor will affect how well they work. It is understandable that auditing practices may enable management to concentrate on potential areas of material defects or problems. So, suppliers can be told about the quality of the material, and any problems with the way it was made can be found and fixed.

The Six Sigma Methodology

The Six Sigma methodology is based on the statistical modeling of manufacturing processes. A sigma rating indicating a manufacturing process's yield or percentage of defect-free products can be used to characterize its level of maturity; specifically, the number of standard deviations from a normal distribution to which the percentage of defect-free outcomes corresponds.

Rehabilitating Cadres and Executives

In addition to audits and other practices, personalized training can be extraordinarily effective in minimizing defects in the Big Green Tractor manufacturing process.

It can be determined that not every process involved in the production of tractors can be automated.

In the production department, employees and laborers are required to perform manual labor.

These employees at Big Green Tractor may benefit from the enhancement and refinement of their existing skills through the implementation of personalized training practices.

Multiple cadres and executives indicate that training and development sessions reduce errors, thereby reducing the likelihood of manual defects.

So, human resource managers and other professionals in our company could do a skills gap analysis on the people who work on the manufacturing plan and then set up personalized training sessions.

Quality Management System

Big Green Tractor's executives are required to develop and implement an effective quality management system. A separate department should be created to ensure that the production of tractors meets high-quality standards. In this manner, both manual and robotic tractor inspection practices can be implemented.

In addition, Big Green Tractor's management should hold regular meetings with the workers on the production and assembly lines to identify the most common causes of reported defects. In addition, methods for addressing defects and workable solutions can be proposed in such meetings, which may ultimately improve quality and reduce the likelihood of their occurrence.

It is clear that practices like looking at the tractors after they are made and setting up meetings can be very helpful in finding and fixing problems quickly.

c) Using modern tools to create a greener process.

There are many 21st-century tools and technologies that Big Green Tractor can leverage to create greener processes. This is how these tools and technologies are discussed.

Lean equipment can have numerous effects on environmental waste. The Environmental Protection Agency's research on the environmental impact and waste reduction benefits of lean tools in organizations from a variety of industries has yielded extensive knowledge of their environmental impact and waste reduction advantages.

This section gives an overview of the lean tools that are used to make a process greener.

Automation & Software

In the current century, robotics is one of the most significant manufacturing technologies that companies are implementing. Several executives demonstrate that modern organizations use

sophisticated tools and software systems, which may indicate the company's use of environmentally friendly practices.

The combination of robotics and software can be highly effective in evaluating Big Green Tractor's carbon emissions from its manufacturing plans.

Similarly, intelligent software systems may also suggest actions that can be taken to reduce emissions. In addition to this, robotics, automated technology, and automated tools can be of great use to Big Green Tractor in harnessing greener processes.

Utilizing machines in production and assembly lines may enable the organization to address waste management concerns and implement greener practices. For instance, intelligent software can

be used to evaluate the cutting processes of materials such as iron sheets and others in order to reduce waste. Thus, robotics and software tools could aid Big Green Tractor in overcoming current obstacles.

Solvent selection tool

Solvent selection tools are additional tools that Big Green Tractor can use to implement greener processes in its manufacturing facilities. It can be said that reagent guides and solvent selection tools may enable the company's research and development division to assess the toxicity of various chemicals used in the production of tractors, such as paints, acids, bases, and many others.

The outputs of these tools can be analyzed to select the chemicals with the lowest toxicity levels and the fewest adverse effects on humans and the environment.

In this manner, Big Green Tractor can use a variety of tools, such as solvent selection tools, the Process Mass Intensity Calculator, robotics, and software, to create greener processes while operating in Indonesia.

2- Developing a socially responsible operational guide for the Big Green Tractor's pollutants

Social responsibility must also be formulated and improvised by Big Green Tractor. The following recommendations can be made for this purpose.

Environmentally friendly equipment

The best and simplest starting point for a corporate social responsibility strategy that can be considered by Big Green Tractor. The organization may prioritize replacing old machines with newer versions or energy-efficient technology. However, such purchases can be costly for the company and may have a significant impact on Big Green Tractor's revenues; however, this one-time expenditure may enable the company to enhance its corporate social responsibility and image in the targeted business market.

New machines may operate on less fuel, allowing the Indonesian government and international organizations to meet emission standards. Consequently, the organization may enhance its corporate social responsibility and implement an eco-friendly strategy.

Electricity saving

The electrification of vehicles, equipment, and machines is a significant practice for Big Green Tractor's corporate social responsibility efforts. Numerous executives have found that electricity is more effective than fossil fuels at reducing carbon emissions. It is one of the primary reasons why all businesses are concentrating on electrifying their operations and production lines.

Big Green Tractor may consider replacing outdated and inefficient technology with electric-powered new models.

For example, the organization may purchase electric vehicles for employees to use in navigating the expansive manufacturing facility. Internal access locomotives powered by batteries can be extraordinarily effective in enhancing corporate social responsibility practices. Big Green Tractor may therefore consider transforming its manufacturing unit by reducing its use of vehicles and machines that run on energy derived from fossil fuels and increasing its reliance on electricity.

Lower Carbon Emissions

It can be said that the Big Green Tractor is required to establish ambitious goals and targets for reducing carbon emissions from its production and manufacturing facility.

Therefore, plans can be developed with a strong emphasis on reducing the emission of carbon-containing compounds from the Indonesian manufacturing facility.

The achievement of annual goals will increase the company's environmental sustainability. A variety of practices, including the replacement of outdated machines and technology, can be considered for this purpose. Additionally, a fossil fuel with a high octane number can be used in the production plants if necessary, which is more environmentally friendly. Recognizing that reducing carbon emissions is a time-consuming process, Big Green Tractor is required to establish annual benchmarks to ensure that all efforts are focused in the same direction.

Be part of the International Nature Organization Community

The alliance with international and domestic environmental protection agencies may be one of the most noticeable processes or strategies that Big Green Tractor uses to develop and implement corporate social responsibility.

The organization may do audits to figure out how much carbon dioxide it is putting into the air and to make sure it is following the rules, regulations, and standards set by such agencies.

Not only that, but these practices may also aid in adopting new protocols for the production of tractors and enhancing assembly lines with ultra-effective techniques.

Additionally, forming a partnership with such organizations might reduce Big Green Tractor's current legal and regulatory obligations in Indonesia.

So, Big Green Tractor's corporate social responsibility includes things like making partnerships with international groups, reducing carbon emissions, going electric, and buying machines that use less fuel.

a) Industrial standards on disposal of chemical waste.

Big Green Tractor's strategic executives are in charge of following a number of industry standards and rules.

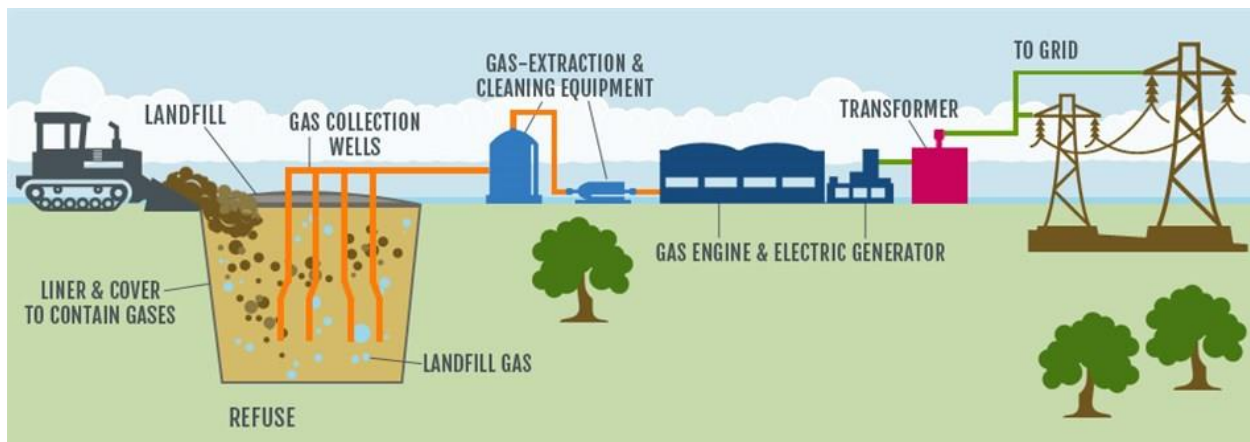
Following is an illustration of these procedures and standards.

And The industry standards for the disposal of chemical waste provide appropriate procedures and guidelines for manufacturing waste treatment. In the majority of cases, hazardous chemical waste is generated at each stage of production. The Environmental Protection Agency provides guidelines for managing the disposal of a company's chemical waste. Environmental Protection Agency industry standards safeguard both human health and the environment.

Environmentally safe landfills

The disposal of the chemical waste produced by Big Green Tractor's manufacturing facilities is being considered, and secure landfills are one of the most viable options available to the organization.

This method entails storing or containerizing waste chemicals and materials in secure landfills. The study shows that the government of Indonesia has set up a number of landfills where chemicals and materials made by companies can be stored and used later with only minor changes.



[Figure 1: Environmentally safe landfills Chart; 130 Environmental Park]

This Figure depicts a typically secured landfill facility that can be used in Big Green Tractor for the containerization of chemical waste. It can be determined that chemical waste can be disposed of in underground, locked containers. For this purpose, the government has established a number of standards. These standards require the use of an impermeable cap to shield the environment above the ground from hazardous substances.

chemical fumes in addition, secure landfills must be constructed so that they do not reach the groundwater level and protect the environment and people in the surrounding area.

Chemical Processing

That processing and treatment can be considered in Big Green Tractor for the management of manufacturing plant waste.

Various executives in industrial waste management indicate that there are a number of chemicals that cannot be discharged directly into water bodies. Similarly, carcinogenic solid waste cannot be dumped on the grounds.

For this reason, Big Green Tractor is required to consider chemical processing strategies in order to reduce their toxicity.

These chemicals are subjected to reactions with other chemicals or reagents during this procedure. Although these processing and treatment activities may allow the organization to incur additional costs, they are remarkably effective in enhancing Big Green Tractor's corporate social responsibility.

Also, the Indonesian government and other organizations focused on social welfare may have fewer legal and regulatory requirements for the group.

Reprocess

A portion of Big Green Tractor's chemical waste can be recycled. According to numerous case studies, not all waste chemicals are completely unusable by the company. Recycling practices can be effective for reusing chemicals.

Aside from this, recycling practices may also reduce the costs Big Green Tractor will incur in the future to purchase the same chemicals. Considering the standards and protocols associated with the recycling of chemicals, it is possible that the organization will need special permission from the government in order to dispose of specific chemicals. Also, the organization must follow strict rules.

If it doesn't, the safety and health of workers and employees may be at risk.

b) Green alternatives to the traditional manufacturing process.

Big Green Tractor can think of a number of environmentally friendly alternatives to the way things are usually made.

Green production entails eliminating waste and minimizing environmental impacts.

Only by implementing practices that affect the product plan, business standards, and process design can this be accomplished.

Every organization must do the following for an eco-friendly and green production process.

Prioritize activities such as reducing discharge, energy consumption, waste generation, and water use.

Here are some of the new green changes that can be made during the production process, along with a recommendation and an explanation of why these changes are better.

Renewable Energy

Big Green Tractor has the most viable option to replace the company's antiquated manufacturing process.

There are numerous green energy sources, including solar energy, wind energy, and geothermal energy.

and numerous others These energy products are derived from renewable, everlasting sources.

In addition, the energy produced by these sources is inexpensive, so Big Green Tractor does not need to invest a great deal of capital. Due to the government's international policies, it is also possible to say that Indonesia has an abundance of renewable energy sources. As a result, the organization's manufacturing facility can increase its use of renewable energy.

Big Green Tractor could put more focus on using this energy to be sustainable and save money in the business market.

Encouraging the use of Biodegradable Materials

Focus on encouraging the use of biodegradable materials during the manufacturing process.

The study reveals that the company's acquired supplies are packaged in plastic that cannot be decomposed.

The company's supply chain strategy may be changed to look for suppliers who package their goods in biodegradable materials.

Based on this, Big Green Tractor may be able to make a big difference in how much trash is made and how it affects the health and safety of employees and people in the area.

HVAC

There are suitable systems, such as HVAC, that can be used to optimize the manufacturing process in businesses today.

HVAC is an acronym for heating, ventilation, and air conditioning, which regulate the indoor climate of a business.

The company must invest a substantial amount of energy in ventilation and temperature control procedures.

Big Green Tractor must consider the energy loss scenario and many others that may compromise energy efficiency.

People can tell the company to use the HVAC system, which may make it more sustainable.

Modernization of the Facilities

One of the astounding practices that can be considered for Big Green Tractor is the modernization of the facility for tractor production. It is possible that the organization will concentrate on insulation and other measures that can be used to reduce energy loss.

In this way, the factory can be improved, allowing Big Green Tractor to use less energy and cut down on pollution.

So, it's safe to say that Big Green Tractor can think of ways to make its products that are better for the environment than the usual way.

Conclusion

It can be stated that Big Green Tractor has a number of significant issues related to sustainability and high operational costs.

The company is concentrating on reducing its operational expenses by streamlining its operations.

Strategic executives within an organization may prioritize achieving cost-effectiveness by reducing material costs, automating processes, selling scrap to vendors, and other means. In addition, a number of practices, such as a quality management system, external and internal audits, individualized training, and standardization, can be considered to minimize defects throughout the manufacturing process. In addition, there are a number of tools that can be recommended to Big Green Tractor in order to implement greener processes, such as a process mass intensity calculator and a tool for solvent selection.

In addition, the report clarifies that Big Green Tractor can consider numerous corporate social responsibility practices, such as carbon emission reduction, electrification, and the purchase of energy-efficient machines, among others.

As a result of these practices, the organization may have fewer legal and regulatory obligations. Among the numerous industry standards and protocols that can be considered in Big Green Tractor are secure landfills, processing and treatment guidelines, recycling procedures, etc. Last but not least, it can also be said that Big Green Tractor may replace traditional manufacturing processes with environmentally friendly alternatives. These alternatives may include the use of renewable energy sources such as solar, geothermal, and wind power. In addition, Big Green Tractor considers the use of HVAC systems and biodegradable materials as green alternatives.

References

- 1- Nigel Slack, Alistair Brandon-Jones, Robert Johnston (2016) *Operations Management: Seventh Edition*,
- 2- Jack R. Meredith, Scott M. Shafer (2006) *Operations Management for MBAs: Wiley*,
- 3- Vibrant Publishers, Ashley McDonough (2020) *Operations and Supply Chain Management Essentials You Always Wanted to Know: Vibrant Publishers*,
- 4- Nigel Slack, Michael Lewis (2002) *Operations Strategy: Financial Times Prentice Hall*,
- 5- George Stalk, Thomas M. Hout (2007) *Competing Against Time: How Time-based Competition is Reshaping Global Markets: Michigan Universities*,
- 6- Alan C. Shapiro, (2008) *Multinational Financial Management, Study Guide: Wiley*,
- 7- R. Dan Reid, Nada R. Sanders (2012) *Operations Management: An Integrated Approach: Wiley*,
- 8- Larry Bossidy, Ram Charan, Charles Burck (2002) *Execution: The Discipline of Getting Things Done: Random House Business*,