



  
**EUROPEAN  
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### COVER PAGE AND DECLARATION

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## **Introduction**

Many businesses prioritize organizational sustainability These businesses e

employ varied methods to meet their goals, expand, assess their operations, create and/or update organizational plans and controls, and oversee their corporate and social responsibility initiatives.

Strategic managers concentrate on organizing and planning, particularly in larger businesses.

Additional characteristics include a streamlined workflow, corporate social responsibility, and a reduction in operational time.

Additionally, this project includes a case scenario for a large tractor firm.

This Palembang, Indonesiabased industrial tractor firm has been experiencing slow growth in recent years; we will assist them in streamlining their operations to become more effective.

The ongoing simplification of Big Green Tractor requires a great deal of research and development.

It is important to explore the reasons why certain practices require reform and the reasons why low a

adherence necessitates reform. It is evident that this organization is committed to environmental standards and norms. The situation is shown in the case scenario.

There are numerous recommendations in this study that are intended to advance the cause.

Large tractor companies should also choose a plan that incorporates a more cost-effective production process, starting with product design that complies with requirements

while lowering manufacturing costs and faults.

In addition to the continuous inspection process at every stage of the manufacturing process, it should

have flexibility in the implementation process, which will result in a simple

r and more flexible

manufacturing process with fewer defects. This should be done after all preventive majors have been

taken to achieve cost efficiency and to minimize defects through a good quality control process to ensure

that the product meets standards and functions well before being delivered to the market.

Focusing on the communication process between all parties involved in the manufacturing process is

crucial. For example, the planning team and the implementation team should communicate to reduce

errors, which lowers costs and minimizes issues in the manufacturing process.

To achieve three goalless pollutions, create clean environment and fulfilling our social obligations to our community. It is also critical to use the newest technology and 21st century tools to create greener processes and save our environment from pollution. Additionally, achieving economic visibility is crucial to preserving the sustainability of the organization.

The ongoing simplification of Big Green Tractor requires a great deal of research and development.

provide a clear knowledge of the justification for actions that require reform. Causes that require reform

Because of low adherence it should also be addressed.

It is evident that this organization is committed to environmental standards and norms. A situation is shown in the case scenario.

This report makes numerous recommendations, such as the following:

- ☐ Pay close attention to crucial details, beginning with the design to ensure that it complies with standards.  
 and cost effectiveness as well as avoiding effort waste.  
 Six Sigma suggests a new system to cut down on raw materials, labor, time, etc. in every operation.
- ☐ According to 6 sigmas, the global percentage of manufacturing processes that accomplish high quality and high efficiency is 0.000004, meaning that "the less waste with high quality, the higher the efficiency.
- ☐ Pay close attention to operating process overhead costs to minimize additional overhead costs.
- ☐ Pay attention to standardizing product parts, such as engines, bodies, etc., to cut costs. This will facilitate supply chains, warehousing operations, and cost follow-up.  
 Since without standardization, costs will rise.
- ☐ Implementing a sound supply chain strategy is crucial to understanding the necessary materialtime, method, transportation, quality, and customs, as well as what the best offers are. It also helps to balance target stock and avoid overstock and stock declines.  
 More attention should be paid to cost-benefit quality and overall cost.

- Put your attention on making control measurements in every region to continuously assess every manufacturing process.
- • To achieve cost efficiency and product compatibility, large tractor companies must use the best manufacturing system.

As the operation manager for a large tractor manufacturer, I must pay close attention to every detail to meet our firm's vision and accomplish the goals with maximum efficiency.



## **I. Operational industrial streamline for Big Green tractor**



Cost efficiency manufacturing process

The cost effective manufacturing process is one of the major goals of the large tractor manufacturer, which is why they have streamlined their manufacturing procedures. Procedures that adhere to this logic can be viewed as what they are, and we shall describe this in the paragraphs that follow.

- **Design**

Pay close attention to crucial details, beginning with the design, to ensure that it complies with standards and is economical.

- **Communication**

Focusing on the communication process between all parties involved in the manufacturing process is crucial. For example, the planning team and the implementation team should communicate to reduce errors, which lowers costs and minimizes issues in the manufacturing process.

- **Standardization**

Focus to produce standardization for the parts of products to decrease the cost like engines, body...etc and this will make easier in stocking, warehouse, supply chains and follow up cut the cost. Because the cost will be raised without standardization.

- **Reducing the excessive consumption of energy of organization**

- The high cost of energy consumption, particularly in the production and manufacturing departments, is one of the main problems facing the large green tractor company now. This raises the organization's overall energy consumption, so when making such important decisions, we should consider a variety of organizational factors.

Tractors use a lot of energy, including fuel, gasoline, and electricity, among other things. It is simple and convenient to solve new energy problems like solar and wind power. Compared to conventional therapies, it is far more economical.

- **Cost reducing in Material with efficiency**

Lowering the cost of materials will make the business more viable and accessible while also encouraging the use of premium materials.

To save high quality and cut costs, the large green tractor company can use parts from manufacturers and concentrate on negotiating with suppliers to acquire the best price.

Big Green Tractor should look at a

few suppliers to receive multiple bids for the same parts and material.

This will lower the cost of the material, which will lower the cost of manufacturing the tractor. We should also try to shorten the manufacturing process to increase efficiency.



- **Lean manufacturing strategy implementation**

Big green tractor company focuses on consideration learning and practicing lean manufacturing to decrease their cost in the manufacturing process also may remove the unessential process from the plant and this led to reduced cost and fast the time without any risk or anything changing.

- **Recycling and selling the scrap to vendors in Indonesia business market**

Selling scrap metal is arguably the most lucrative recycling option, both financially and environmentally.

In addition to looking for ways to reduce costs or simply make money off wornout machinery or other

items that are no longer useful, Big Green Tractor should train its staff on how to sell scrap to vendors in

Indonesia's

business market. Selling scrap would be a better option than simply disposing of it as waste.

Excellent financial value, an excellent method of removing waste from the environment, and a means of

attaining a higher level of sustainability

- **Reduce the manufacturing time process by using Automation**

While software is available for processing all manufacturing related tasks,

Big Green Tractor is looking to use the newest automated technology to shorten the manufacturing

process. Automation helps businesses save money and increase efficiency by replacing manual labor. Big Green Tractors

use automation technologies for their manufacturing jobs to cut down on time and cost.

- **Set SOP to focus on our priorities for ROI**

Following stakeholder meetings, we discovered that many people spend a lot of time on one of the major daily tasks. By prioritizing ROI, Big Green Tractor achieves cost efficiency, and managers can use this

information to determine the order and scores of their projects. The various components and processes

involved in Manufacturing tractors should be prioritized to prevent time or cost waste.



## Effective plans to decrease the defects through the manufacturing

Big green tractor looking to minimize the defects through the manufacturing process as the following points.



- **Audit potential suppliers' quality management systems implementation**

Large green tractor companies must design and implement an effective quality management system department that

oversees ensuring that all tractors are built to the same high standards, that they operate as intended, and that both manual and automated material inspection procedures are established.

To guarantee that tractor manufacturing runs well, regular meetings with workers involved in the manufacturing process are required.

Along with establishing a golden standard to set quality standards and tolerances for quality faults



in a quality

manual, you should also negotiate with suppliers to get the best price for your quality level.

- **Audit of material acquired from suppliers:**

The objective is to retain the greatest possible quality while utilizing the fewest resources to get the

maximum output. How do businesses start this process, then?

Additionally, assess each supplier's standards and quality, as well as the raw materials required to make each product and each outsourced process step.

Additionally, assess the effectiveness of every piece of equipment, including every task it performs during the production of a product.

Consider the conduct, education, and output of every worker, manager, and group assigned to any stage of the production process,

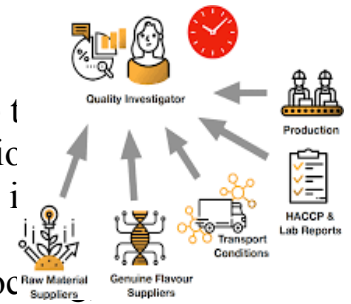
maintain strict quality control guidelines and practice to guarantee adherence and direct business objectives toward excellence. Maintain a consistent

and focused maintenance program to avoid flaws brought on by machine failure or breakdown. Eliminate complicated, time-consuming or repetitive processes from every process by using technology to automate those with a high error rate.

By identifying process stages that could or have already resulted in product defects, manufacturing area optimization can help reduce manufacturing defects. Consider the efficacy of control loops and pinpoint locations where they might overlap or be ineffective.

## • Standardization

Numerous studies demonstrate that ISO 9001 standards apply to the production, manufacturing, and assembly of goods in organizations. The Big Green Tractor's standard manufacturing process can be implemented as one of the following. The goal is to standardize product parts, such as engines, bodies, etc., to reduce costs. This will make stock warehousing, supply chains, and follow-up easier.



## • Training for Big Green Tractor company employees

The large green tractor company intended to set up training for their power to raise awareness that  
The employees' present skills can be improved and perfected with additional personal training. Less injuries are thought to result from educational sessions. Making mistakes is essential to reduce the possibility of manual labor-related flaws. Organizations frequently employ professionals and resource managers to identify any gaps in their professional knowledge. Employees deliver individualized instruction while adhering to the manufacturing schedule. Appropriate session times.

## Advanced 21st century tools using to create a greener process

In the highly technologically advanced world of today, gadgets have become an essential part of our daily existence. Big Green Company can develop greener procedures with practical outcomes thanks to the sophisticated technologies of the twenty-first century. With every day that goes by, technology keeps getting easier to use. Innovation in technology has always been enthusiastically embraced by the tractor industry. Manufacturing in such a heavy industry is made possible by machines in a manner that would be impossible for a workforce composed entirely of humans. Thanks to advancements in automation technology, we are currently witnessing a transformation in the manufacturing landscape's machinery.

## New Software and Robotics systems:

Big Green Tractor may be able to minimize waste by using robots and technological solutions.

ons to address the problems the characters are now facing.

One of the most important technologies of the twenty-first century that companies intend to use in their manufacturing is robots.

Thanks to recent advancements, the methods and software used to gather this data are no longer exclusive to a single business.

These demonstrate that the business uses eco-friendly systems.

Data on carbon emissions may be efficiently gathered using robotics and software.

based on Big Green Tractor's production plans (Couto, Plansky & Caglar, 2017).

Intelligent software programs can recommend specific steps a user might take to improve their productivity.

minimize emissions, while new robotics and automation technology also help cut emissions. Big green Tractor's practices enabled them to make a big impact

To reduce waste management and introduce greener practices, the firm can address its issues by concentrating on

assembly lines and machines utilized in manufacturing.

Smart software and other applications can measure a variety of operations, including the removal of iron sheets.

### **Reagent guides and solvent selection tools:**

There are other tools that can be used outside of this project's scope. With their manufacturing facilities,

Big Green Tractor will implement more environmentally friendly procedures.

Research with a corporation is improved by reagent guides and solvent selection tools. Each new creation's poisonous strength is measured by the company's development department. Chemical components like

paints, bases, acids, and more are utilized to make tractor engines. One can decide which chemicals to

include in the mixture that have the least negative impacts on the environment and the body by looking at the data produced by the tools.

A process mass intensity calculator, solvent selection tools, and a metric for determining process intensity are all included in this program.

Big Green Tractor can employ robotics and software to develop more environmentally friendly processes. residing in Indonesia.

## **II. development of socially responsibility for big tractor to guide them for their pollutants**

- **Industrial standards on disposal of chemical waste**

Because of the nature of their business, many organizations enforce rules and procedures. The strategic managers of Big Green Tractor represent the company's standard operating procedures and strategies. in this way.

### Secure landfills:

Chemical waste production requires disposal techniques.

The plants at Big Green Tractor are cherished.

Given that both are regarded as secure, any analogy to a landfill is appropriate.

Before presenting potential alternatives to the group, collect and evaluate them. Usually, chemicals and waste materials are displayed using methods according to the legislation they must be kept in safe landfills

According to landfill

research conducted by the Indonesian government, they have added a number to their list.

These locations can be used to store goods from businesses.

still in use in the future, albeit slightly modified.

Landfill design typically appears in the ordinary structure. To transport containers for chemical waste big Green Tractor can be used. Waste containers security put underground. The people must follow the rules that the government rules. These standards are created for a specific purpose. A specialized impermeable cap must be





developed to safeguard the surrounding natural environment from hazardous chemical emissions that exist above ground.

to prevent any contact with the subsurface water level and to provide comprehensive environmental protection to nearby residents the cap must be placed over securely constructed landfills.

### **Processing and treatment:**

Industrial waste management calls for specialized treatment methods. Certain chemicals are prohibited from being dumped into bodies of water, according to numerous research on industrial waste management. These consist of certain acids and alkalis.

When producing waste products, Big Green Tractor must take precautions against dangerous chemicals.

Materials that contain carcinogens and cannot be disposed of in the ground fall under this category. Chemicals have changed to make them less dangerous.

utilized to react with additional substances or materials.

Organizations may incur higher costs because of their operations.

This action increases Big Green Tractor's corporate social responsibility.

As a result of the change, the government has given the organization fewer legal and regulatory requirements in Indonesia these nonprofits strive for social justice.

### **Recycle:**

This project is one of the other solid waste management accomplishments.

According to case studies, Big Green Tractor is made of recyclable materials.

The waste chemicals are useless and cannot be used by the company.

To make them useable, they must be recycled. It is possible to reuse chemicals through garbage.

Through recycling, Big Green may be able to cut costs.

The same chemicals are included in future tractor purchases.

The organization uses established procedures to deal with chemical recycling considering these criteria. Before they can be utilized, some chemicals need special government approval.

Any organization that violates its policies puts its members' safety at risk.

There may be detrimental effects on workers' and employees' health.



- **Green alternatives to the traditional manufacturing process**

Nowadays, a lot of businesses replace conventional production methods with environmentally friendly ones. It is suggested by Big Green Tractor. They are regarded as a substitute for the original. This is what it's called.

#### **Embracement of green energy:**

Because these renewable products are made from sustainable energy sources, Big Green Tractor doesn't have to spend a lot of money on energy.

Because these sources are derived from nonrenewable resources, they are also reasonably priced.

Due to its wealth, Indonesia has a lot of green energy. It enhances the effectiveness of the national government's foreign policy. supplied by the company's production facility. stress how crucial it is to capture this energy to attain sustainability.

In the corporate market, it also performs exceptionally well in terms of cost effectiveness.

#### **Biodegradable material:**

The Big Green Tractor prioritizes the use of biodegradable materials in its production.

This is because researchers discovered that suppliers that the organizations purchase come in non-biodegradable plastic packaging.

The company may look at other providers of commodities packaged in non-toxic materials when implementing a biodegradable supply chain. This will streamline Big Green Tractor's supply chain and cut down on waste production that endangers the health of neighboring residents and employees.

#### **Facility upgrade:**

Additionally, by improving their insulation, Big Green Tractor can enhance their production facilities.

Given the organization's emphasis on tractor output, this can significantly lower the likelihood of lost energy, or power.

### III. Conclusion

There are numerous factors that contribute to the sustainability challenge. Because of its high operational

expenses, the Big Green Tractor is very expensive to operate. It is dedicated to cutting these costs.

A more cost-effective operation results from minimizing operating expenses. Due to a lot of strategic managers focus on this area of their company.

Focusing on improving efficiency to reduce material costs aids the firm in being cost-effective. Selling scrap to vendors is a common part of many jobs.

Among other things, this involves automated sales to lessen manufacturing process defects like quality.

The business uses a standardized management system, a standardized training program, and customized

audits.

Additional tools that Big Green Tractor should consider using can be found. providing tools such as a solvent selection tool and a process mass intensity calculator, the report also notes that many of the practices for corporate social responsibility come in groups. Big Green Tractor should consider the ramifications of its actions regarding carbon reductions. Add new machines that use less energy to your collection. Also consider purchasing any of the listed above. because the organization isn't burdened by extra-legal or administrative demands, they can easily avoid these issues. Big Green Tractor may utilize several industrial standards and protocols. These guidelines include the names of recycling

programs and the locations of secure landfills. They also contain information about how to properly process and treat recycled materials. Consider green alternatives when considering alternatives. This can be done because certain green options are also considered parapsychological. Big Green Tractor's new process could replace traditional manufacturing. Alternatives to this scenario may include the consideration of renewable sources of energy such as solar. Also includes the use of air conditioning, wind, and geothermal energy. Additional options include many more. Alternative green options include Big Green Tractor considering biodegradable materials.

include Big Green Tractor considering biodegradable materials.

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