



EUROPEAN  
INTERNATIONAL  
UNIVERSITY



## COVER PAGE AND DECLARATION

	<b>Master of Business Administration (M.B.A.)</b>
<b>Specialization:</b>	Marketing and Sales
<b>Affiliated Center:</b>	CEO Business school
<b>Module Code –Module Title:</b>	MGT550: Managing operations
<b>Student Full Name:</b>	Essam Yousef Mohamed Saad
<b>Student ID:</b>	EIU2020849
<b>Word Count:</b>	3683
<b>Date of Submission:</b>	29-01-2023

I confirm that this assignment is my own work, is not copied from any other person's work (published/unpublished), and has not been previously submitted for assessment elsewhere.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

**DATE:** 04/01/2022

**EIU Paris City Campus**

Address: 59 Rue Lamarck, 75018 Paris, France | Tel: +33 144 857 317 | Mobile/WhatsApp: +33607591197 | Email: [paris@eiu.ac](mailto: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](mailto:info@eiu.ac)

## I. Table of contents

1. Contents	Page 2
2. Introduction	Page 3
3. Operational industrial streamline for Big Green tractor <ul style="list-style-type: none"> <li>• Cost efficiency manufacturing process</li> <li>• Effective plans to decrease the defects through the manufacturing process.</li> <li>• Advanced 21<sup>st</sup> century tools using to create a greener process</li> </ul>	Page 4-9
4. Development of socially responsibility for big tractor to guide them for their pollutants <ul style="list-style-type: none"> <li>• Industrial standards on disposal of chemical waste</li> <li>• Green alternatives methods to traditional manufacturing process</li> </ul>	Page 10-6
5. Conclusion	Page 11
6. References	Page 12

## II. Introduction

Most of companies focus on organizational sustainability. These company are using variable strategies to be able to achieve their targets and make growth and to be able to evaluate the operations of a company, develop and/or revise the organizational plans and controls and manage the organizations' corporate and social responsibility strategies.

Especially within larger organizations, strategic managers focus on planning and coordinating efforts. Plus, more features like decreased operating time, corporate social responsibility, and a streamlined process. And we have a case senario in this assignment for big tractor company. It is an industrial tractor company based in Palembang, Indonesia and it has been facing declining growth in the recent years we will help them to streamline its operations to be more efficient.

Big Green Tractor's continual streamlining necessitates significant research and development. providing a clear understanding of the rationale behind practices in need of reform and causes needing reform due to low adherence should be addressed. this organization's dedication to environmental standards and norms is clearly stated. The case scenario depicts a situation. This report contains many suggestions meant to further the cause. Also big tractor company should select strategy include more cost efficiency manufacturing process which start from design of the products to be matching with standards and at the same time reduce the defects and the cost of manufacturing process. Also, it should have flexibility in implementation process which will lead to easier and flexible manufacturing process with low defects, in addition to the continuous inspection process to each stage in manufacturing process and this after taking all preventive majors to achieve the cost efficiency and to minimize the defects through good QC process to confirm if the product meet the standards and its functions doing well before delivered to the market.

It very important to focus on communication process between all stakeholders in manufacture process like communications between planning team and implementation team force power to reduce the defects which lead to minimize the cost minimize the problems in manufacturing process.

Also it is important to use the latest technology and 21century tools to create greener process and save the our environment to be less pollution by make special activities to achieve three objectives less pollution, pure environment and do our social responsibility toward our community, also achieve economical visibility to save the organization sustainability.

Big Green Tractor's continual streamlining necessitates significant research and development. providing a clear understanding of the rationale behind practices in need of reform. In addition, causes needing reform due to low adherence should be addressed. this organization's dedication to environmental standards and norms is clearly stated. The case scenario depicts a situation. This report contains many suggestions like following:

- Focus a lot of attention on important points start from **Design** to confirm be suitable for standard and cost efficiency also to don't waste effort.
- New system recommended by **6 sigma** to reduce the waste in each process in raw material, time, and manpower's ...etc. "**The less waste with high quality, the higher the efficiency**" in manufacturing process and worldwide percentage according to 6 sigma is 0.000004 and this achieve high quality and high efficiency.
- Focus a lot of attention on overhead expenses in operation process to reduce the extra overhead expenses
- Focus to make **standardization** for the parts of products to reduce the cost like engines, body...etc and this will make easy in stocking, warehouse, supply chains and follow up reduce the cost. Because the cost will be increase without standardization

- It is very important to implement good strategy in **supply chain** to know how will required materials, time, method, transportation, quality and customs and what the best offers, Also to make the balance target stock and prevent the over stock and the drop in stock
- More focus on **cost benefit quality** and total cost
- Focus to make control measurement in each area to **continuous evaluation** for each process in manufacturing.
- Big tractor company must select the **suitable manufacturing system** to be more compatible with the products to achieve the cost efficiency and

As I the operation manager in Big tractor company I must focus on this all points to achieve the **objectives with high efficiency** to meet the **vision** of our company



### III. Operational industrial streamline for Big Green tractor



#### Cost efficiency manufacturing process

One from main objectives for big tractor company is the cost efficiency manufacturing process so they have streamlined their manufacturing processes. procedures that follow this rationale can be considered for what they are, and we will explain this as bellow points.

- **Design**

Focus a lot of attention on important points start from **Design** to confirm be suitable for standard and cost efficiency also to don't waste effort

- **Communication**

It very important to focus on communication process between all stakeholders in manufacture process like communications between planning team and implementation team force power to reduce the defects which lead to minimize the cost minimize the problems in manufacturing process.

- **Standardization**

Focus to make standardization for the parts of products to reduce the cost like engines, body...etc and this will make easy in stocking, warehouse, supply chains and follow up reduce the cost. Because the cost will be increase without standardization

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

One of major issues now in big green tractor company is high cost of energy consumption especially in production and manufacturing department which lead to increase the overall energy consumption in the organization so we should consider many aspects of organizations to make like these major decisions.

Tractor consumes large amounts of electricity and other sources of energy such as gasoline, diesel, and many more.

Solving new energy solutions such as wind and solar power is easy and convenient. It's much more cost-effective than traditional treatments.

- **Cost reducing in Material with efficiency**

Reducing the material cost will lead the company to become more profitable and affordable and at the same time keen to acquiring high quality material. Big green tractor company can use the parts from manufacture tractors and can focus on negotiations with suppliers to get the best price and in the best way to reduce the cost and save the high quality.

Big green tractor should consider many suppliers to get many proposals for the same material, same parts this way will reduce the price of material and based on this the cost of manufacturing of tractor will reduce and we should work to reduce the time of manufacturing process to achieve the efficiency

- **Lean manufacturing strategy implementation**

Big green tractor company focus on consideration learning and practice of lean manufacturing to decrease their cost in manufacturing process also can removing the unessential process from the factory and this will lead to reduce the cost and fast the time without any risk or change anything.

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

Selling scrap metal is probably the most profitable form of recycling, in terms of money as well as benefit to the environment. Big green tractor should practice their employees to know how can sell the scrap to vendors in Indonesia's business market, also they are looking for ways to cut down on cost or just earn something off the worn off machinery or other items that are no longer of any use, selling it as scrap would be a better idea than just dumping it as waste. Great monetary value, A great way of cleaning the waste in the environment, It helps in achieving a greater degree of sustainability

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

Big green tractor company as our suggestion looking for using the latest automated technology to reduce the time of manufacturing process. Automation helps companies save money and increase efficiency by replacing manual labor. Currently, many companies use automation to replace labor. software is available for processing all manufacturing related tasks. Big Green Tractor uses automation technologies for its manufacturing jobs to reduce the time and the cost.

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

Suggestion to Big green tractor company to focus on how to set the priorities for return of investment because after meetings with all involved stakeholder we found many people Many people spend a lot of time performing one of the major daily tasks. prioritizing ROI by performing for Big Green Tractor achieves cost efficiency. The managers can use this information to decide the order and scores of their projects. different components and processes involved in manufacturing tractors according to the priorities to avoid in waste in time or cost





## Effective plans to decrease the defects through the manufacturing process.

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

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

Big green tractor company require to develop and implement an efficient quality management system department which responsible to confirm all tractors on the same high level of quality and confirm the tractor functions working well and the manual and automated inspection processes of material should be created. regular meetings with employees in the manufacturing process are necessary to ensure that tractor production continues smoothly. And to set the right price for your quality level when negotiating with suppliers, also to establish a golden sample to set quality expectations and set our tolerances for quality defects in a quality manual.



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

The goal is to produce the highest output possible using the lowest number of resources while maintaining the highest achievable quality. So, how do companies begin this process? And evaluate the quality and standards in each supplier, including the raw materials needed to create each product and every step in the process which is outsourced. And evaluate the process and success of each piece of machinery, including each action the machine completes during the manufacturing of a product, Consider the actions, training, and performance of each employee, supervisor, and team tasked with any step in the manufacturing process, Uphold high-quality control standards and procedures to ensure compliance and focus company goals toward excellence, Stick to a regular and dedicated maintenance schedule to prevent defects as a result of machine breakdown or failure, Utilize technology to automate steps that have a high incidence of error and eliminate complex, lengthy, or repetitive steps in every process.

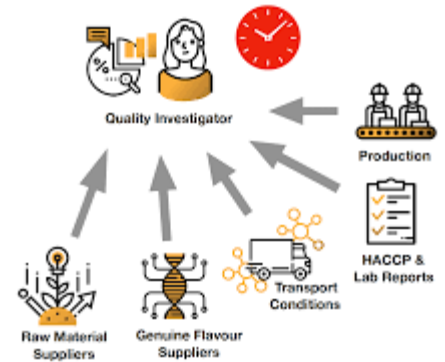
Consider the effectiveness of control loops and identify areas where they may overlap or be unproductive, Utilizing manufacturing area optimization can help reduce manufacturing defects by identifying steps in the process that may result, or have already resulted, in product defects.



## • Standardization

Focus to make standardization for the parts of products to reduce the cost like engines, body...etc and this will make easy in stocking, warehouse, supply chains and follow up reduce the cost. Because the cost will be increase without standardization.

The Big Green Tractor's standard manufacturing process can be determined to be one of the following. Many studies prove that ISO 9001 standards apply to the production, manufacturing, and assembly of goods in organizations



## • Training for Big green tractor company employee

Big green tractor company planned to arrange trainings to their power forces to increase the awareness with supplemental training of a personal nature, employees' current abilities can be refined and enhanced. Estimates suggest that educational sessions lead to fewer injuries. errors are necessary for minimizing the likelihood of defects caused by manual labor. To determine any gaps in their professional knowledge, organizations often use the services of resource managers and professionals. employees work within the manufacturing schedule to provide personalized training. Session times accordingly.

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

In today's world of advanced technology, devices have become an integral part of our everyday lives. The advanced 21st century tools enable Big Green Company to create greener processes with useful results. The technology continues to become more intuitive with each passing day. The Tractor industry has always been an eager adopter of technological innovation. In such a heavy industry, machinery makes possible the manufacturing in a way that a purely human workforce never could. Nowadays, we are seeing the machinery of the manufacturing landscape transform, thanks to technological advances in the field of automation.

## New Software and Robotics systems:

The use of robotics and software solutions may help Big Green Tractor achieve their goal of minimizing waste. present issues the characters currently face.

Robots were one of the most significant 21st century technologies. which businesses plan to manufacture using. This information derives from tools and software aren't limited to just one industry thanks to recent developments. the company's use of environmentally friendly systems is indicated by these. software and robotics can be effective at collecting data on carbon emissions. Based on the production plans drafted by Big Green Tractor (Couto, Plansky & Caglar, 2017). Smart software systems can suggest certain actions that a user can take to increase their efficiency. minimize the emission and in addition, new automation and robotic technologies reduce emissions. Big Green Tractor's green processes helped them achieve significant significance. the organization can solve their problems with a focus on the machines and assembly lines being used in production. for reducing waste management and implementing greener practices. Applications like smart software can measure processes like iron sheets being removed and many more.

## Reagent guides and solvent selection tools:

Additional tools are available for use beyond the scope of this project. Big Green Tractor will create more sustainable practices at their manufacturing plants. Reagent guides and select tools for solvents enhance research with a company. The company's development department measures the toxic strength of each new creation. chemical ingredients used in the production of tractor engines such as paints, acids, bases and more. by examining the data generated by the tools, one can choose which chemicals to add to the mix, which has the lowest environmental impact and least harmful effects on the body. people. This app includes tools such as solvent selection tools, a Process mass intensity calculator and a metric for calculating the intensity of a process. Software and robotics can be used by Big Green Tractor to create processes that are greener. existing in Indonesia.



#### IV. Development of socially responsibility for big tractor to guide them for their pollutants

##### • Industrial standards on disposal of chemical waste

Many organizations enforce specific guidelines and methods due to the nature of their industry. Big Green Tractor's standard procedures and strategies are represented by its strategic managers. in this manner.

##### **Secure landfills:**

Producing chemical waste necessitated methods of disposal. Big Green Tractor's plants are treasured. Any comparison to landfill is apt, as both are considered secure. gather and examine possible alternatives before presenting them to the group. This approach is typically used to showcase waste materials and chemicals. Supposed to be stored or contained in secure landfills by the law. The Indonesian government's landfill study reveals they have added several to their catalog. companies' products can be stored in these sites. Still employed with slight variation in the future.

This design for a landfill typically appears in the common structure. The Big Green Tractor can be used to transport containers for chemical waste. A study shows that it can be used for approximately 900 loads. Certain waste can be placed in secure containers underground. The government sets standards for what people can use. 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. This cap must be placed over securely constructed landfills to prevent any contact with the subsurface water level and to provide comprehensive environmental protection to nearby residents.



##### **Processing and treatment:**

The management of industrial waste requires special treatment techniques. Several studies into industrial waste management show that some chemicals can't be discharged into bodies of water. These include certain alkalis and acids. Big Green Tractor is required to consider strategies for handling harmful chemicals when generating waste materials. This includes materials containing carcinogens that can't be dumped in the ground. Chemicals are altered so they have less harmful effects. used in conjunction with other materials or chemicals to react. Organizations can increase their expenses thanks to their activities. Big Green Tractor's increased corporate social responsibility results from this activity. the government grants the organization fewer legal and regulatory obligations because of the move. these non-profits work for social justice in Indonesia.

##### **Recycle:**

Additional solid waste management achievements include the creation of this project. Case studies have found Big Green Tractor to be recycled material. The company cannot use the waste chemicals because they are useless. They must recycle them so they're usable. Reusing chemicals through waste can be effective. Big Green may reduce their expenses thanks to recycling practices. Future tractor purchase includes the same chemicals. Considering these standards, the organization deals with recycling of chemicals through established protocols. Certain chemicals require special permission from the government before they can be used. Any organization breaking its protocols risks the safety of its members. The health of employees and workers can be negatively impacted.

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

Today, many companies use environmentally conscious alternatives to traditional manufacturing processes, which Big Green Tractor recommends. They're considered an alternative to the original. This is how it's referred to.

**Embracement of green energy:**

Big Green Tractor doesn't need to spend a lot of money on energy thanks to these renewable products being developed from everlasting sources of energy. These sources are also affordable since they're developed from non-renewable sources.

Indonesia boasts copious green energy because it has capital. increases the efficacy of the national government's international policies. provided by the manufacturing plant of the organization. emphasize the importance of harnessing this energy to achieve sustainability. It also excels at cost-effectiveness while operating in the business market.

**Biodegradable material:**

The Big Green Tractor focuses on using biodegradable material during the manufacturing process. This is because researchers found out that suppliers acquired by the organizations come in plastic packaging that can't be decomposed. When switching to a biodegradable supply chain, the organization may consider alternative suppliers of supplies wrapped in non-toxic materials. This would improve Big Green Tractor's supply chain and reduce their production of waste that causes health concerns for employees and nearby populations.

**Facility upgrade:**

Additionally, Big Green Tractor can improve their production facilities by upgrading their insulation. This can reduce the odds of lost energy— or power — which is amazing considering the organization's focus on tractor production.

## V. **Conclusion**

The issue of sustainability comes with many reasons. Big Green Tractor costs a lot to run due to its high operating costs. It's committed to reducing these expenses. Minimizing operational expenses makes for a more cost-effective operation. Therefore, many strategic managers pay close attention to this aspect of their business. focusing on minimizing material costs through increased efficiency helps the organization achieve cost-effectiveness. many jobs involve selling scrap to vendors. This includes automated sales and more. to reduce flaws in the manufacturing process such as quality. The company implements a standardized training regimen, a standardized management system and personalized 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.

## VI. Reference:

1. <https://www.researchandmarkets.com/reports/5673452/indonesia-agriculture-tractors-market>  
Indonesia Agriculture Tractors Market- Size, Trends, Competitive Analysis and Forecasts (2022-2027)
2. Operations Management 2009 by 2009 by The McGraw-Hill
3. Operations Management by Jay Heizer and Barry Render 2013
4. Gallman, P. (2011). Green Alternatives and National Energy Strategy USA: Johns Hopkins University Press
5. Neu, F. (2013). Cutting Costs Successful Strategies for Improving Productivity. UK: Praeger
6. Maintenance and Reliability Best Practices by Ramesh Gulati 2020
7. The 7 Habits of Highly Effective People by Stephen R. Covey
8. Davim, P. (2012). Green Technologies in Food Production and Processing. USA
9. <https://www.veroresearch.com/research-store/indonesia-e-tractor>
10. <https://en.wikipedia.org/wiki/Tractor>