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Module Assignment: Operational Procedures & Guide

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Operational Procedures

A business that assembles tractors is called Green Tractor. It has been experiencing decreased growth over time, necessitating the need to simplify its operations. Operations in a firm are the actions taken to transform inputs into products that customers may purchase. A business's management of operations is essential. It makes it possible for a firm to run successfully on a daily basis.

Additionally, effective operations management is necessary to guarantee a company's profitability and organic expansion. Inputs, transformation processes, and outputs are the three essential components of operations. This essay will examine the different ways Green Tractor might enhance the methods in which it obtains its inputs, through its transformation processes, and efficiently manages its outputs. As a result, there will be three sections to the suggestions for streamlining its operations.

Improving Input Processes

Green Tractor is an industrial tractor firm with a variety of inputs. These inputs consist of raw materials, energy, and labor. Green Tractor must reduce input waste, find less expensive options without sacrificing quality, and employ environmentally friendly energy sources to assure its sustainability if it is to run effectively.

Demand Management

Green Tractor has to monitor demand in order to choose the right amount of raw materials to send to the source. To estimate future demand and maintain an adequate inventory, demand management analyses existing product demand patterns (Feng & Shanthikumar, 2018). Reduced raw material sourcing will result in shortages, which will let down consumers and cost the firm market share. On the other side, the corporation runs the danger of having a dead inventory if it purchases more raw materials and produces more tractors than it can sell. The extra inventory supports the company's capital. Additionally, the company will spend extra money to keep the dead stock due to expenditures for personnel, storage, and product insurance (Nnamdi, 2018). To guarantee they determine the best stock levels, Green Tractor should employ integrated business management systems that connect various company operations, such as sales and finance. The corporation needs to utilize a business management system like streamline software. The programmer analyses data from several business activities to determine the demand and project how much product the organization should manufacture (Stadtler et al., 2015). The Green tractor will order the required raw materials as a consequence, minimizing waste caused by overstocking and hazards caused by understocking.

Energy

Energy is a vital component of the business operations for a manufacturer of tractors like Green Tractor. The company's operational and social expenses are also influenced by the way it obtains and utilizes its energy. Social costs are the consequences that a company's activities have on society. One such societal cost is pollution. The green tractor should thus apply an energy consumption strategy in accordance with the energy input to reduce energy waste. Energy is wasted when things like lights that aren't being used or machines that aren't being used are left on. The waste affects the expenses of the firm, reducing its profitability and limiting its

expansion (Phillips & West, 2022). As a result, the energy-saving strategy for the operations should guarantee that there is a person in charge of certain building and infrastructure components. It will be the employee's duty to regularly inspect the area to see whether any lights or equipment are left on while it's not in use. Employees who participate in these activities that waste electricity should also face harsh disciplinary measures. Another form of energy waste is defective equipment. Green Tractors should establish regular maintenance schedules for their equipment to maintain maximum performance and prevent power wasting (Ellacott, 2022). The next piece of advice is to switch to renewable energy sources. The business should begin by implanting a hybrid system since an immediate changeover can be expensive. For instance, equipping the business with solar panels will provide electricity to 50% of it. The business should increase its use of renewable energy sources while decreasing its reliance on non-renewable ones as it increases its earnings. In addition to being costly to use, non-renewable energy sources are also bad for the environment (Kberger, 2018).

Labor

Labor is the third essential component for Green Tractors Company. As the business expands, streamlining labor procedures will help it reduce waste and increase income. Understaffing, overstaffing, employing incompetent workers, and bad shift management are some causes of inadequate labor management that affect the company's operations. To enhance company operations, Green Tractors Company should create an employee routine management strategy. It will be able to assign workers to shifts that will allow them to reach their full potential thanks to the employee routine management plan (Martins, 2022). The business will also be able to determine if it is overstaffed or understaffed with the help of employee routine management. If it has more workers than necessary, it should fire some of them to cut down on

resource and administrative waste brought on by employees' overlapping duties (Rubatt, 2021). On the other side, if it lacks enough workers, it has to start a hiring process for new people. The business should revamp its hiring practices in an effort to enhance labor as an input for Green Tractor's operations. To guarantee that the business recruits talented and competent workers who will function efficiently, the recruiting process must be successful. Increasing diversity is one tactic the company may use to enhance its hiring procedure. Employing people with a variety of backgrounds and traits means having a diverse workforce. As opposed to a homogeneous workforce, a varied staff is more innovative (Joseph R. & Selvaraj, 2015).

Research and Design

A corporation must perform research and design work before beginning the mass manufacturing of a product to make sure it is aware of the demands of the market and produces goods that address those needs. If the research and design phases are skipped, a business runs the danger of creating a product that won't sell because it doesn't satisfy customer wants.

Additionally dynamic and liable to change as technology advances are consumers' demands (Integrating design and manufacturing for competitive advantage, 2021). As a result, Green Tractor must establish a research and design team and assign it the goal of regularly investigating market demands and adapting designs in response to changing customer wants. By participating in this procedure, Green Tractor will get a competitive edge, increasing sales. As a result, the procedure will aid in the company's expansion and guarantee that it produces designs that are sustainable.

Transformation Processes

As a manufacturer of industrial tractors, Green Tractor's transformation procedures include putting the various components together to create tractors as the final product. As a

result, the manufacturing process is at the heart of Green Tractor's transformative processes. To guarantee the effectiveness of the transformation processes, the business should develop risk management procedures.

Risk Management Processes

The production of Green tractors involves a number of hazards that might have a detrimental effect on the company. These dangers include the potential for injury, death, financial loss, and property damage. Identification, evaluation, and mitigation of numerous risk sources are all part of the risk management process (Smith & Merritt, 2020). The creation of efficient risk management procedures will enable Green Tractor to function daily at its best. On the other side, when an event occurs, a lack of a risk management procedure might render all other processes inoperable. For instance, a fire at a manufacturing facility may harm or kill workers, cause property damage, and impair company operations. With a risk management framework in place, the business will be able to recognize this risk, evaluate the possibility that it will materialize, and implement mitigation measures including fire insurance, fire extinguishers, and staff evacuation procedures (Evi, 2022).

Time Management

A manufacturing company's operations place a lot of emphasis on time management. Effective time management makes sure that all procedures are completed on schedule to satisfy the expectations of various stakeholders. Process scheduling, estimating how long certain procedures will take, and routine progress evaluations are all part of time management. The Gantt chart and other tools should be used by Green Tractor to schedule its procedures. The chart will provide the management the ability to plan various procedures and assess progress,

ultimately maximizing the use of the company's time (Tonchia, 2018). In conclusion, the business may improve time management skills to simplify its production operations..

Communication

There has to be ongoing communication since commercial operations like marketing, distribution, and supply intersect with production processes. To ensure that operations go well, a firm must work as a team and communicate efficiently. Information is exchanged between parties during communication (Rosemann & vom Brocke, 2014). To guarantee that it streamlines its operations, Green Tractor Company should enhance its communication techniques. The company's personnel should always communicate with one another in a timely, exact, and unambiguous manner. To improve information management, the business should also move to new communication methods.

Reducing Wastage through Lean Management

In certain corporate procedures, money and resources are wasted. The procedures prevent a business from reaching its full potential for development (McLaughlin, 2019). For instance, a product that is defective as it leaves the manufacturing line cannot be sold to the client since it does not match their requirements. The product is thus regarded as waste. By establishing a functioning quality control department, Green Tractor may reduce such wastes. As the business creates the product, the quality control department's responsibilities include evaluating the materials and production procedures used. Participating in the quality control process will thereby shield the company from needless losses brought on by flaws. Inefficient industrial equipment is another cause of waste. A malfunctioning device uses more energy and may not deliver the best results (Gay, 2022). As a result, the machine not only wastes time and energy but also other resources. To get optimum and effective production from the equipment, Green

Tractor should make sure to maintain it periodically. Green Tractor should also concentrate on recycling recyclable materials. By not damaging the environment, recycling materials that may have been thrown out as garbage helps the business to run sustainably (Lawson, 2018). For instance, it may shape leftover business plastic into materials that can be utilized for tractor components.

Assembly Processes

To create the end result, a tractor, the Green Tractor manufacturing process requires the assembling of various pieces. The business will be able to expand and minimize pollution by streamlining this procedure. Robotic assembly equipment and artificial intelligence are one method the business may expedite the manufacturing procedures (Chouffani, 2019). For instance, co-bots are used by the BMW, Mercedes, and GM automakers to speed up the assembly process (Daley, 2019). Co-bots are collaborative robots that assist human employees in handling materials, packing, and quality inspection in order to speed up the assembly process. By being able to build more tractors after implementing the usage of co-bots, Green Tractor will have a competitive edge in the market. Consequently, the high capacity production will aid in increasing the company's income.

Output Processes

The final product that satisfies the demands of the client is referred to as the output of a manufacturing organization. A completed tractor is what the Green Tractor Company produces. To manage the output and make sure it reaches the consumer, a number of procedures are used. These procedures include inventory management procedures as well as sales and marketing procedures.

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Sales and Marketing Processes

These procedures include promoting the goods to the vendor and persuading them to purchase it. Sales and marketing is a daily operation that has the power to affect consumer demand for a product. To guarantee that it improves sales, Green Tractor must thus enhance its sales and marketing procedures. The business should employ digital marketing techniques to promote the product, such as using social media sites and digital ads. For instance, if Green Tractor utilizes Google Ads to market the tractors, the firm would see increased sales and income as a result of the high advertising conversion rate. The algorithms used by digital marketers like Google allow them to show an advertising to a person who is likely to buy the goods by analyzing their personal data (Lawson, 2022). Consequently, as opposed to traditional means of advertising like billboards, the adverts reach the intended market. In order to maximize customer happiness, Green Tractor should also provide after-sale services. These services help boost customer loyalty (Othman et al., 2020). A happy consumer is also a free form of advertisement. Green Tractor may enhance after-sale support by putting in place procedures like providing free consultation to customers who have purchased tractors from the business. In order to keep track of customers who purchased tractors from the business, they may also establish an engaging online forum.

Inventory Management Processes

A product must be tracked as part of inventory management procedures from the time it is made until the client gets it (Wild, 2017). The transfer of goods from the production facility to the storage facility and showrooms is one of the procedures. In the case of the Green Tractor firm, the method of tractor transportation does not provide customers with additional value. However, the company's carbon footprint and manufacturing costs might also rise as a result of the transit procedure. Therefore, Green Tractor should make sure that while transferring the

tractors, it does so using affordable transportation solutions. Rather of paying movers for each truck, you might transport the tractors in bulk. By devising wise showroom locations, the business should also expedite the inventory management process. Customers should be able to reach the key showroom site with ease, and delivery trucks from the production facilities should be able to do the same. Green Tractors should also optimize the ordering process as it pertains to inventory management. An order should be simple for the consumer to place. The business should also complete the order fast and give the consumer ownership of the tractor (Wild, 2017). The business won't expand much if order placing and processing are troublesome since the majority of its clients will switch to competitors. The business should also use environmentally friendly inventory management strategies, such as a paperless system. Because papers are made of wood, businesses that utilize them actively promote the felling of trees. The paper method should be replaced with online receipts from Green Tractor Company that don't affect the environment.

Socially Responsible Guide for Pollutants

A manufacturer of tractors, Green Tractor Company, uses various practices that harm the environment. An adverse externality that affects the nearby population is environmental pollution during manufacturing. In order to safeguard the neighborhood where it works, Green Tractor must make sure that the pollutants in its operations are reduced to a minimum or eliminated entirely. By successfully reducing pollution, a business is able to preserve a favorable connection with the community around it, which enhances the firm's reputation. In Indonesia, there are a number of regulations for managing industrial waste that specify how businesses should handle their garbage. This socially conscious operating strategy is based on Indonesia's

waste management laws and rules. At the conclusion of the operating plan, green alternatives to conventional production techniques are also suggested.

Article 10

In article 10 of the 2025 Clean-from-Waste Indonesia plan, the government set a regulation requiring all persons and companies to effectively manage their waste by reducing their total waste, recycling, and reusing their waste (Bahagijo, 2022). The Green Tractor Company should adhere to the regulation by making several adjustments to its operations.

One of the strategies the Green Tractors can implement is initiating a buy-back program for its old tractors that are subject to disposal. Instead of increasing the overall waste in the environment by letting customers dump old and broken tractors in the yard, the company can buy them back and recycle some of the material. This program will create a closed-loop system whereby the company's production line entails recycling of materials hence reducing the overall waste disposed to the environment.

Articles 12 and 13

Companies are required by Articles 12 and 13 of the 2025 Clean-from-Trash Indonesia strategy to reduce waste generation and promote recycling via a support programmer (Bahagijo, 2022). By applying going paperless on their operations, Green Tractor Company can comply with the waste management guidelines. The paperless method involves doing away with paperwork including sending paper mail, providing paper receipts, and putting orders on paper. Going paperless will allow the business to produce less trash overall.

Regulation 101 of 2014

According to Indonesia's Regulation 101 of 2014 on waste management, a business is required to collect, store, and manage its hazardous waste (Bahagijo, 2022). Green Tractor

contains a variety of hazardous wastes since it makes tractors. These wastes include old motor oil, chemicals from battery parts, and chemicals from engine chemicals. Therefore, it is Green Tractor's duty to make sure that it handles and collects garbage. It may use methods like thermal disposal, in which it burns part of the materials to make them disposable. Additionally, some of the hazardous trash might be dumped in subsurface landfills.

Corporate Social Responsibilities

Due to the pollutants produced by the production processes, Green Tractor Company should also take on corporate social obligations in order to benefit the community in addition to controlling output and disposing of trash within the facility. These CSRs need to be mainly concerned with enhancing the environment. For instance, the business has to aggressively plant trees in the area. It should also take part in environmental cleanup by collecting trash and recycling some of the materials, so lowering local pollution.

Green Alternatives

The Green Tractors Company could use a number of environmentally friendly options in its production process to reduce pollution and carbon emissions. These environmentally friendly options include using renewable energy sources, using biodegradable packaging, and funding the development of electric tractors.

Renewable Sources of Energy

The energy used by a manufacturing business to run its operations is one of the main causes of pollution in the industry. Renewable energy sources should replace non-renewable ones in Green Tractors. Solar energy is one of the sources of renewable energy. The business should spend money installing solar energy systems as a source of electricity. It may modify its building windows and roofs in addition to employing solar energy as a source of energy to allow

more natural light to enter. As a result, the corporation will use sunshine as its primary source of illumination throughout the day. Utilizing sunlight as a light source not only provides a green option but also lowers energy costs for the business (Kannan & Vakeesan, 2016).

Using Biodegradable Material

Some of the materials used in the production process of Green Tractor are bad for the environment. Polythene, a substance used in packaging, is one of the materials. For instance, on a brand-new tractor, the manuals are stored in a plastic bag, and the seats are coated with nylon. The business should switch from plastic packaging to environmentally friendly biodegradable alternatives (Zhong et al., 2020). In rare cases, it may completely eliminate the harmful polymers.

Replacing the Transport Fleet

The usage of automobiles is necessary for several industrial processes. Internal combustion engines release hazardous gases into the atmosphere, which causes pollution (Ferrero et al., 2016). The Green Tractor Company should switch its fleet from internal combustion to electric vehicles as part of the greening of industrial operations.

Replacing the Plant Machinery

The manufacturing facility has some equipment that is powered by internal combustion engines. Cranes and forklifts are two examples. These pieces of equipment need to be replaced with electric, emission-free ones from Green Tractor Company. By implementing this change, the firm will be able to lower its carbon footprint and become more ecologically sustainable.

Invest in Research and Development

Most automakers have been developing electric motors to power their cars due to the significant carbon impact internal combustion engines leave. Since electric motors emit nothing,

there is no air pollution. The Green Tractor Corporation needs to spend money establishing a Research and Development division (R&D). The focus of the R&D will be on developing an electric tractor motor. The R&D team will test many potential designs over time in an effort to create an efficient electric motor that will power the tractor. A significant step toward substituting conventional manufacturing methods with environmentally friendly ones will be redesigning internal combustion tractors so that they emit zero emissions.

Conclusion

The operations' inefficiencies at Green Tractor Company have been a major factor in the business's slowing growth. Additionally, the waste of resources caused by these inefficient procedures has a negative impact on the company's ability to produce at its highest level and increase revenue. The organization will benefit from the suggestions, which are broken down into three operational segments: input operations, transformational processes, and output processes. To guarantee the business lowers waste and disposes of it in a socially acceptable way, the advice on managing waste from the production process have also been in line with Indian rules. Finally, the operational guide has suggested environmentally friendly alternatives to the industrial process's present activities.

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