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MGT550: Managing Operations

Module Assignment: Operational Procedures & Guide

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Introduction

Effective operations management is now understood to be a key contributor to national prosperity. Production management is the conventional approach of manufacturing management, emphasizing economic efficiency in production. As the service industry grew in importance, a new term, Operations Management, emerged. Manufacturing capacities have been improved as a result of new materials, facilities, processes, and procedures in response to the many advantages and disadvantages brought on by the rapid pace of technological progress. Therefore, in today's globally competitive market, service system management has emerged as a formidable obstacle. Improved efficiency and output in businesses all around the world can be directly attributed to the implementation of operations management strategies. In order to get where they need to go as efficiently as possible, successful businesses follow the guidance of operations managers. Since this is the case, it is more important than ever for students at both the undergraduate and graduate levels to study this topic.

First and foremost, operations management is one of a company's three primary functions. Together with other departments like Marketing and Finance, Operations Management is responsible for turning the company's human and material assets into finished goods and services. In this role, you'll be responsible for ensuring that your company's Resources are being put to good use.

Within the specified time frame and at a reasonable price. Our mission is to map out Big Green Tractor's future operations, from sourcing raw materials to shipping finished goods to customers. The next step is to compile a report outlining what needs to be done to make manufacturing more lucrative, including reducing the number of defective items produced and incorporating cutting-edge technology into an environmentally friendly workflow. To conclude, implement an ecologically sound transformation process using modern industry standards for chemical waste management and Social Responsibility guidelines.

This report discusses the difficulties faced by businesses and details a strategy for enhancing Big-value Green's chain and market proposition through, among other things, the implementation of safer and more cost-effective manufacturing practices like chemical waste disposal via environmentally friendly means, improved waste management and controls, and stricter adherence to environmental codes and regulations.

The O&M management plan is an integral part of the whole project. The management process is responsible for integrating the many components of the programme into a unified whole. We recommend a five-part organisational structure (OMETA) consisting of Operations, Maintenance, Engineering, Training, and Administration for the overall programme.

Managers of operations and maintenance (O&M) are responsible for more than just setting up and facilitating OMETA links; they must also communicate with the heads of other departments and argue for increased funding in the face of decreasing resources. In addition to planning and carrying out the project's implementation, their duties also include ensuring that the programme and its objectives endure.



Figure 1: OMETA STRUCTURE

As the Director of Operations, one of my primary responsibilities is to optimize the allocation of resources in order to maximize productivity, efficiency, and safety. -Efficiency through conformity Constant Flow: -cleared/ rationalized pay attention to operating costs

The OMETA framework, which we've discussed previously, outlines five distinct components of a successful O&M plan (Meador 1995). The key to a successful O&M organization rests in the clearly defined roles that each component—Operations, Maintenance, Engineering, Training, and Administration—plays and the connections that exist among them. The following is a summary of some of the tasks associated with each component; more detail may be found in Meador (1995).

Operations

- Administration: To make sure that operations are carried out and controlled well.

- **Conduct of Operations:** To make sure that process operations are done in an effective, safe, and reliable way.
- **Equipment Status Control:** To know how all the equipment is doing.
- **Operator Knowledge and Performance:** To make sure that the knowledge and performance of the operators will help the plant run safely and reliably.

Maintenance

- **Administration:** To make sure that maintenance activities are carried out and controlled well.
- **Work Control System:** To make sure that maintenance is done in a safe and efficient way so that the plant runs as efficiently, safely, and reliably as possible.
- **Maintenance:** To do maintenance in a way that is safe and effective.
- **Preventive Maintenance:** To help make sure that plant systems and equipment work well and are reliable.
- **Maintenance Procedures and Documentation:** To tell workers how to do their jobs and make sure that maintenance is done in a safe and efficient way when needed.

Help with engineering

- **Engineering Support Organization and Administration:** To make sure that technical support is put into place and controlled well.
- **Equipment Modifications:** To make sure that changes to the design of equipment are done right in terms of design, review, control, implementation, and documentation.
- **Equipment Performance Monitoring:** To do monitoring tasks that improve the reliability and effectiveness of equipment.
- **Engineering Support Procedures and Documentation:** Make sure that the engineer support procedures and documents give the right direction and help the equipment work well and safely.

Training

- **Administration:** To make sure that training activities are carried out and controlled well.

- **General Employee Training:** To make sure that plant workers have a basic understanding of their jobs and how to do them safely, as well as the knowledge and skills they need to run the plant in a safe and reliable way.
- **Training Facilities and Equipment:** Make sure that the training facilities, equipment, and materials work well to support training activities.
- **Operator Training:** To learn and improve the skills and knowledge needed to do the job functions that have been given.
- **Maintenance Training:** To learn and improve the skills and knowledge needed to do the job functions that have been given.

Administration

- **Organization and Administration:** To set up and make sure that policies, planning, and control of equipment activities are carried out well.
- **Management Objectives:** Make and use formal management goals to improve the performance of equipment.
- **Management Assessment:** To keep an eye on and evaluate station activities to improve the performance of all equipment.
- **Planning and qualification of staff:** To make sure that positions are filled with people who are highly qualified.
- **Industrial safety:** means making sure that people and the public are safe.

[A brief about Gig Green Tractor](#)

The Palembang, Indonesia headquarters of Big Green, a production firm. A factory, in other words. The company has had regressive progress in recent years as a result of low productivity and environmental productivity. In order to remain competitive, the corporation must reorganize its internal processes.

[The operational industrial streamline procedural guide of Big Green Tractor](#)

Big Green Tractors, an Indonesian tractor manufacturer, has seen a decrease in its customer base and is looking to optimize its operations. Value stream mapping is a powerful method used by many businesses to aid in the discovery of waste and the creation of a lean manufacturing system (Tyagi et al., 2015). It has been expanded gradually to broad demand chains and has trial considerable outcomes that can address the difficulties in production and the supply chain

operations across the Big Green Tractors organization. Collaborative planning, forecasting, and replenishment (CPFR) was explored in this paper to better understand the Lean manufacturing approach used by Indonesia's The Big Green Tractor (Rewers, Trojanowska & Chabowski, 2016). The research addressed the social responsibility of the organization through waste reduction and prospective strategies to reduce the current assembly challenges. With continual advancements in Big Green Tractors, the report aimed to advise the reduction of seven categories of waste, which the company needs to improve in its performance (Alayón, Säfsten & Johansson, 2017). Lean manufacturing, also known as Lean production and the no-waste manufacturing method, is a production philosophy that emphasizes efficiency and the reduction of waste in the creation of commodities (Bertoni et al., 2015). The research also addressed the socially responsible operational guide to several challenges observed in the Big Green Tractor assembly process. An integral part of the lean system's deployment on the assembly line, the seven-waste disposal and recycling processes were designed to cut down on waste while saving money.

Expertise and Practical Experience in the Industry

The Big Green Tractor's goal with this venture is to first establish a foothold in the Indonesian market and then spread internationally. The Big Green Tractor Company plans to grow manufacturing and export in subsequent years in response to consumer demand, starting with an aim of exporting 100 tractors in the trial year (Kibira et al., 2015). The Big Green Tractor Company should rely on the lean techniques of the manufacturing process in order to cut down on material expenses, operation costs, and boost labour efficiency, which can serve as the backbone of the company's manufacturing process.

Big Green Company Faces Difficulties

The difficulty of the task may be proportional to the severity of the issues being experienced by Big Green. These are some of the difficulties that the Big Green Tractor team encountered:

Long-distance: The Big Green is an Indonesian business that needs to get resources from far-flung regions of the country. Therefore, it has fashioned its manufacturing around responsiveness in demand planning. Raw material demand is non-standard, which creates difficulties in forecasting. Therefore, the business is experiencing difficulty meeting customer demand. To figure out this difficulty, the corporation can order their items on little amount yet on a regular basis (Song, Li & Zeng, 2015). (Song, Li & Zeng, 2015). Customers' needs can shift at any time,

therefore businesses need to be prepared for this with measures like quick, low-quantity order placement. Because of this, the company has breathing room to figure out how to fix the issue and start producing tractors again when demand increases.

When Big Green tractors are behind schedule, it's hard to maintain order in the market. As the Big Green is a new firm in Indonesia, it will face loss if it cannot protect its foothold in the market.

The issue can be fixed by the corporation using advanced order to keep their supply.

Customer service: It is very vital for Big Green tractors to keep customers delighted as can enable the company to stay in the market. It is impossible to succeed in the absence of any kind of service. Big Green tractors can continue to expand successfully so long as they continue to meet the needs of their customers. The organization has a great workforce that has the customer service training they need to fix this issue.

Manufacturing customization: Production of Big Green tractors in Indonesia is laborious and time consuming. Since goods aren't being produced at the proper moment, the situation is more problematic in production. The production process of manufacturing Big Green tractors is delayed because of inefficient processes inherent in the assembly line of the corporation. When that happens, it delays the manufacturing process and market demand. To address this issue, the corporation should better coordinate its trial run to ensure that enough of the product is produced and sent on time.

Establishing a customer base is challenging for a new product like Big Green tractors. It will take time, but if the company takes the essential steps, such on-time delivery, adequate supplies, customer services, and exceptional cooperation, it will be much easier to establish itself as a good brand in the market.

Additional difficulties for Big Green Tractor include: Demand Response Planning; Customer Service; Customized Manufacturing; Supplier-Collaboration; Life Cycle Support; Reverse Logistics; and Customizations.

Recommendations

Using Integrated Operations Planning, manufacturers may plan to reduce product failures at every stage.

The aforementioned sum is merely an illusion meant to highlight the issues facing The Big Green Tractor. The planning criteria can address these concerns in a modern approach to Integrated Planning and Operations in the production of The Big Trial Tractor. Since the forecast is typically inaccurate, just 4% of organizations use it in their manufacturing process. Sixty percent of businesses use current annual sales numbers as a basis for their output. The Big Green Tractor may implement lean manufacturing, a strategy for systematically reducing waste and costs associated with producing goods (VonHeyl, 2015). This method of minimizing errors and optimizing processes can be implemented across the board. A flaw exists if there is any use of or waste of resources that does not directly contribute to the delivery of the product or service that a buyer desires. This way of thinking is a culture of removing flaws that improve the product and satisfy the needs of the consumer. This can account for everything that the Big Green Tractor has done (Asaad, Saad & Yusoff, 2015). By coordinating and balancing everyone's efforts, we can eliminate wasteful procedures at The Big Green Tractor and ensure that our products are of the highest quality for our customers.

There is more to lean development than just a set of methods. A belief system based on repeatedly testing new ways to enhance processes for all employees. At The Big Green Tractor, another goal of lean production is to speed up the payment process after a request has been submitted (Chourasia & Nema, 2016). Productivity rises, deadlines shrink, expenses drop, quality rises, and client satisfaction soars as a direct result of time savings. The Big Green Tractor offers a wide variety of tools and techniques for implementing lean production systems (Ullwer, Campos & Straube, 2016). Kaizen Rapid Improvement Process (CIP), 5 Sigma, Six Sigma, Pre-Production Planning (3 P), Lean Enterprise Supplier Networks, Total Productive Maintenance (TPM), Cellular Manufacturing, and One-piece Flow Production Systems are the eight primary process trial systems of the lean process (Nallusamy, 2016). The Big Green Tractor is able to analyze the underpinnings and give a roadmap for implementing lean production technologies of the aforementioned procedures in the assembly shop of automotive tractor manufacturers to cut down on faults and save time.

The socially responsible operational guide for the Big Green Tractor for their pollutants.

Modifying an existing procedure using 21st-century tools in order to reduce environmental impact:

The Big Green Tractor must evaluate APS systems, which are a planning and production decision support tool that uses computer-based optimization concepts, to come up with ideas for alternative green practises, consequences, difficulties, and a schedule. Still, it's not easy to keep up with bustling businesses that deal in a wide range of products, services, orders, tools, and employees, thanks to the challenging limits inherent in their environments. In these cases, APS offers significant green support for The Big Green Tractor. The Big Green Tractor's sophisticated planning and scheduling is geared toward the development of environmentally friendly procedures via Enterprise Resource Planning (ERP), the implementation of effective logistical systems, and the attainment of substantial expansion. Big Green Tractor needs to pay more attention to and be more careful with its and procedures. Big Green Tractor, like with its rivals in APS, keeps getting better and smarter. By optimizing the production process from raw materials to final items with the help of APS algorithms, Big Green Company can decrease waste and boost sustainability.

The Big Green Tractor uses APS for its planning and scheduling, so it may learn about production team issues including whether or not required resources can be obtained on time in order to fulfil productivity, usage, and transportation targets. In order to better coordinate the assembly line and introduce greener practices, Big Green has to schedule machines tools and work with different principles like PDM (Product Data Management). The following is a list of APM resources:

1. A tool for simultaneous planning: Having this helps the folks at The Big Trial Tractor run their business more smoothly and successfully. Consequently, it creates practical plans that The Big Green can simply implement.

2. The Big Green Tractor and APS collaborated to create a platform that encourages teams to work together rather than operate alone. The Big Green has successfully worked with its Indonesian suppliers to accomplish its goals.

3. The Global Optimization Tool is essential since Indonesian suppliers are the backbone of The Big Green Tractors. APS plans to organize with The Big Green Tractor many local plants effectively to ensure production meets client demands.

4. The APS programme is used to manage limits and eliminate the corresponding problems.

Collaborative planning, forecasting, and resupply are integral to cost-effective manufacturing processes.

The company Big Green has planned to bring 100 tractors to the Indonesian market. Even though it is a little shipment, the company has implemented a strategy that will enhance both its sales and production. Therefore, The Big Green Tractor's management worked on many activities to achieve the following objective and grow annual orders.

When demand increases from their initial, modest shipment, The Big Green Tractor Company will place further orders. After then, a three-year time frame will be set as a realistic goal. As such, the business plans to conduct a sort of test with a modest shipment of 100 tractors. The Big Green Tractor Company is able to meet the criteria with the aid of CPFR (Pang & Dong, 2018). In order to accurately gauge and meet client demand, businesses might benefit from a process known as collaborative planning, forecasting, and replenishment (CPFR), which draws on the expertise of several trading partners. The Big Green Tractor Company can take advantage of CPFR's combined arrangements and disseminating best practices in a number of areas, including having the administrators plan and implement a stock system that increases transparency while decreasing stock (Niemann, Kotze & Jacobs, 2018). The Big Green Tractor uses this model of collaboration and coordination between a customer and a vendor in order to best serve the product's ultimate consumer.

Chemical waste management regulations in the industrial sector

Big Green Tractor is able to minimize waste through the use of waste minimization, change reaction, right place, right time, right quality, effective value stream relationship, ongoing improvement, and quality from the start strategies (Rohani, & Zahraee, 2015). The Big Green Tractor considers any manufacturing process activities that do not increase the value of products to be waste. All types of manufacturing waste must be identified, and the company's proposed disposal methods must be tested. In the Big Green Tractor's search for garbage, it has uncovered the following materials:

1. Excessive waste
2. Waiting time trial
3. Waste from transportation

4. Insufficient waste treatment
5. Chemical waste
6. Waste of unnecessary motion

1. Excessive waste

Overproduction occurs if The Big Green Tractor Company produces more products than anticipated in its production plan, or if the products are produced more swiftly than anticipated. Consequently, premature product supplies are held in intermediate storage areas (Ullwer, Campos & Straube, 2016). To prevent a machine worker from running a production line, he instantly begins processing the order for the following operations at the company after completing the previous order. The anticipated manufacture of this new product was delayed, resulting in the worker's overproduction and the need for trial warehouses.

2. Waiting time waste

The company The Big Green Tractor determines the clarity or obscurity of waiting times. In the situation of a worker working a single machine with an automatic feed and stopping system, there is a readily apparent method of calculating waiting time.

3. Waste from transportation

The company's freight waste results from unnecessarily long, overlapping routes for shipment, interim storage, loading, and unloading, and pallet transit. The shipping loss at The Big Green Tractor is also attributable to overly detailed cycle breakdowns and an unfair division of labour, as a result of poorly defined mid-range shops and massive production.

4. Insufficient waste treatment

Inappropriate packing losses are the result of poorly planned drug production rework and are sometimes unnecessary.

5. Chemical waste

The chemical waste of production faults emerges in locations that gather semi-manufactured products, necessitating interim storage. (Alayón, Safsten, & Johansen, 2017) Expert trainers can

reduce the chemical waste of fabrication flaws at the Big Green Company by examining the job, product, and conditions of the worker who creates a particular item. Chemical waste should be processed in accordance with the policies of the Indonesian business PT PPLI, as outlined in its instructions and with its assistance. It can verify how a corporation disposes of a given chemical. The person who has completed a particular section should promptly inspect it. The recognized company PT PPLI adheres to the following requirements for industrial waste:

1. Trial Profile
2. Pre-Acceptance Process
3. Waste Administration
4. Liquid Waste Treatment

6. Waste of unnecessary motion

In the holding and filing of products, it is evident that trial of needless movement occurs. At the company, workers sit by the conveyor belts and assemble the finished product. The primary component of an assembly line is a conveyor belt, therefore the waste comprises of waste arrival and disposal. Workers' sitting job at The Big Trial Tractor Company is the primary cause of the loss of an excessive amount of motion, as it reduces the movement area of employees and excludes workers' mutual aid. A job also generates waste since the employee holds the component in his left hand and uses only one hand for output.

Conclusion

The employment of lean techniques would result in increased output, a more optimal flow mix, fewer supplies, less strain on the Big Green Tractor's partial capacity, fewer wasted hours, and a more economical and efficient allocation of resources such as labor, space, and equipment. Analysis of The Big Green Tractor's CPFR reference model, which provides an overarching framework for the interdependent parts of orchestrating, reviewing, and revitalizing structures, was the focus of this paper. The Big Green Tractor's goal is to produce goods to satisfy consumer demand using modern methods of reducing the cost of operations, transportation, and collaboration. Big Green Tractor can benefit from implementing the lean method's processes because they are unique to the organization and can lead to expansions in production and

operations. It's intended to cut down on the amount of random, haphazard activity that messes up the supply chain's otherwise seamless operation. One of the ideas of lean manufacturing that has been applied to the elimination of travel operations is the value addition of activity reduction. Big Green Tractor's production process was analyzed in detail as they drew up their current stream value map. The company is able to focus on areas where growth is possible. By implementing tools and strategies from the lean methodology, such as visual plants, multi-functional operation, kaizen, and the Kanban method.

References:

Alayón, C., Säfsten, K., & Johansson, G. (2017). *Conceptual sustainable production principles in practice: do they reflect what companies do?*. *Journal of Cleaner Production*, 141, 693-701.

Asaad, M. N. M., Saad, R., & Yusoff, R. Z. (2015). *5S, Kaizen and organization performance: Examining the relationship and level of implementation using Rasch model in Malaysian automotive company*. *International Academic Research Journal of Business and Technology*, 1(2), 214-226.

Bertoni, A., Bertoni, M., Massimo, P., Christian, J., & Tobias, L. (2015). *Expanding value driven design to meet lean product service development*. In *7th Industrial Product-Service Systems Conference-PSS, Industry Transformation for Sustainability and Business*, Saint Etienne, FRANCE, MAY 21-22, 2014 (Vol. 30, pp. 197-202). Elsevier.

Javeed, S. A., Teh, B. H., Ong, T. S., Chong, L. L., Abd Rahim, M. F. B., & Latief, R. (2022). How Does Green Innovation Strategy Influence Corporate Financing? Corporate Social Responsibility and Gender Diversity Play a Moderating Role. *International journal of environmental research and public health*, 19(14), 8724. <https://doi.org/10.3390/ijerph19148724>

Sullivan, G., Pugh, R., Melendez, A. P., & Hunt, W. D. (2010). *Operations & maintenance best practices-a guide to achieving operational efficiency (release 3)* (No. PNNL-19634). Pacific Northwest National Lab.(PNNL), Richland, WA (United States).

Thakar, Piyush. (2021). *Operation management*.