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Individual submission: Contact session: 7

Topic(s): Lean Operations and Maintenance & Reliability

Name of my organisation: North-West University (Vice-Chancellor's office)

Pseudonym to be used if discussed in class: n/a

Nature of business: Higher Learning Institution

Brief (one paragraph) description of the scope of the business that I analyse:

The business to be analysed is a higher learning institution within the Vice-Chancellor's office. This is an office where the NWU Institutional Strategic goals, implementation and executions are managed. The office further serves as the centre of contact effectively engages with various stake-holders both internally and externally. In the context of this assignment an NWU ethics assessment project will be analysed.

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Summary of the theory. Chapter 16: Lean Operations

- **Lean** focuses on using less inventory to attain high volume of production successfully. It is important to note that there is no Lean if the quality is bad.
- **Lean operation** assist in providing consumers with a product or service they want or expect, in the time they want it. This is done through continuous improvement in processes to satisfy customers and without any form of waste.
- In order to build a lean organization there needs to be an organizational leadership that is exceptional, to ensure that there is continuous improvement, open communication and elimination of silos within the organization.
- **Just in time (JIT)** refers to an approach which is aimed at eradicating lack of consistency through continuous problem solving focusing on throughput and minimization of inventory.
- It is important to note that **JIT** is primarily focused on problem solving and on the other side **Lean operations** pays attention on the needs of customers in order to create value for them (customers).
- **Toyota Production System (TPS)** promotes continuous improvement, having respect for people and standards work practice suitable for assembly lines.
- Methods that could be utilized to promote the respect of people theory include, levels payrolls, cooperative employee unions, subcontractor networks, bottom-round management and quality circles.
- In the service industry lean becomes effective when the organization strives to improve quality of service or product and form organizing groups to solve problems to eradicate activities that are not necessary or wasteful.
- The above could be achieved through **level schedules**, where each day's production is scheduled to meet the day's demand.
- Five Ss' included in the lean operation are; sort, simplify, shine, standardize and sustain.

Summary of the theory. Chapter 17: Maintenance and Reliability

- Maintenance and Reliability have an objective to the capability of the system.
- If maintenance is not managed accordingly that could impede on the company's reputation, profitability and unhappy customers.
- It is therefore important for companies to set aside time for maintenance to build long-term quality improvement and strengthen company capacity.
- In order for the above to be achieved, employees need to be involved and procedure that are put in place for effective maintenance should have reliable systems.

Two types of maintenance include;

- **Preventative maintenance** – a plan which includes regular inspections, constant monitoring and ensuring that facilities are in a good condition.
- **Breakdown maintenance** – when preventative maintenance fails, breakdown maintenance functions as a remedial approach in order to ensure that equipment and facilities are repaired accordingly as a matter of priority.

It is important to note the optimum point where cost should be taken into consideration when purchasing equipment and its maintenance. In order to minimize loss of cost, there should be a development of reliable preventative maintenance plans which contain best practices in utilizing machines and their maintenance. This could also be done but ensuring that staff members are thoroughly trained to operate and maintain machines. It is however important to purchase machines that are reliable and easy to use for employees.

What is there about the topic that I would like explained further in class?