

Operations management essay sample

[Business](#), [Management](#)



1. Operations management is: The management of systems or processes that create goods and/or provide services

2. What are the three basic functions in business organizations?

1)Marketing

2)Operations

3) Finance

2. A supply chain consists of A sequence of activities and organizations involved in producing and delivering a good or service

4. What is meant by the term value-added? The amount by which the price or value of an output is increased due to the addition of material, labor, or other resource.

5. The operations function oversees a transformation or conversion process. Explain briefly.

Input, Output and Value-added. Any operation can be described as a set of inputs (i. e. labor and materials) that are transformed into a set of outputs (i. e. goods and/or services), as illustrated in Figure. The essence of operations management is value-added, or the degree to which the value of all outputs of an operation exceed the value of its inputs.

6. Explain the term goods-service continuum. Products are typically neither purely service- nor purely goods-based.

7. List some ways that manufacturing systems and service systems differ.

- * Jobs in services are often less structured than in manufacturing
- * Customer contact is generally much higher in services compared to manufacturing
- * In many services, worker skill levels are low compared to those of manufacturing employees
- * Services are adding many new workers in low-skill, entry-level positions
- * Employee turnover is high in

services, especially in low-skill jobs * Input variability tends to be higher in many service environments than in manufacturing * Service performance can be adversely affected by many factors outside of the manager's control (e. g., employee and customer attitudes

8. What is a process? Process is one or more actions that transform inputs into outputs 9. Give an example of each process category:

Upper management: These govern the operation of the entire organization.

Examples include organizational governance and organizational strategy.

Operational: These are core processes that make up the value stream.

Examples include purchasing, production and/or service, marketing, and sales.

Supporting: These support the core processes. Examples include accounting, human resources, and IT (information technology).

10. List the basic sources of variation

Four Sources of Variation:

Variety of goods or services being offered| The greater the variety of goods and services offered, the greater the variation in production or service requirements.|

Structural variation in demand| These are generally predictable. They are important for capacity planning.| Random variation|

Natural variation that is present in all processes. Generally, it cannot be

influenced by managers.| Assignable variation| Variation that has identifiable sources. This type of variation can be reduced, or eliminated, by analysis and corrective action.|

11. Why is it important to manage variations? Variations can be disruptive to operations and supply chain processes. They may result in additional costs,

delays and shortages, poor quality, and inefficient work systems. 12.

Operations management professionals make decisions that affect the entire organization. Briefly explain each of these categories: What: What resources are needed, and in what amounts?

When: When will each resource be needed? When should the work be scheduled? When should materials and other supplies be ordered? Where: Where will the work be done? How: How will the product or service be designed? How will the work be done? How will resources be allocated? Who: Who will do the work?

13. What are models, and what are some of the ways they are useful? Model: is an abstraction of reality

- * Models are generally easier to use and less expensive than dealing with the real system
- * Require users to organize and sometimes quantify information
- * Increase understanding of the problem

- * Enable managers to analyze “What if?” questions

- * Serve as a consistent tool for evaluation and provide a standardized format for analyzing a problem
- * Enable users to bring the power of mathematics to bear on a problem.

14. Why are performance metrics necessary? All managers use metrics to manage and control operations. There are many metrics in use, including those related to profits, costs, quality, productivity, flexibility, assets, inventories, Schedules, and forecast accuracy. 15. What are trade-off decisions? A trade-off is giving up one thing in return for something else.

Example: Carrying more inventory (an expense) in order to achieve a greater level of customer service

16. What is a systems approach, and why is a systems approach useful? A system can be defined as a set of interrelated parts that must work together -The business organization is a system composed of subsystems marketing subsystem

operations subsystem

finance subsystem

-The systems approach

Emphasizes interrelationships among subsystems

Main theme is that the whole is greater than the sum of its parts The output and objectives of the organization take precedence over those of any one subsystem

17. Why is degree of customization a factor in operations management? -

Relative to other standardized products and services customized products:

Tend to be more labor intensive.

Tend to be more time consuming.

Tend to require more highly-skilled people.

Tend to require more flexible equipment.

Have much lower volume of output.

Have higher price tags.

-Degree of customization has a significant influence on the entire organization: Process selection.

Job design.

Affects marketing, sales, accounting, finance, and information systems.

18. What are some areas of ethical responsibility in the management of operations ? Operations managers, like all managers, have the responsibility to make ethical decisions. Ethical issues arise in many aspects of operations management, including:

- Financial statements: accurately representing the organization's financial condition.
- Worker safety: providing adequate training, maintaining equipment in good working condition, maintaining a safe working environment.
- Product safety: providing products that minimize the risk of injury to users or damage to property or the environment.
- Quality: honoring warranties, avoiding hidden defects.

- The environment: not doing things that will harm the environment.
- The community: being a good neighbor.

- Hiring and firing workers: avoiding false pretenses (e. g., promising a long-term job when that is not what is intended).
- Closing facilities: taking into account the impact on a community, and honoring commitments that have been made.
- Workers' rights: respecting workers' rights, dealing with workers' problems quickly and fairly.

Many organizations have developed codes of ethics to guide employees' or members' conduct.

19. Why is there a need for the various functional areas of an organization to collaborate? In practice, there is significant interfacing and collaboration among the various functional areas, involving exchange of information and

cooperative decision making. For example, although the three primary functions (operations-marketing-finance) in business organizations perform different activities, many of their decisions impact the other areas of the organization. Consequently, these functions have numerous interactions. 20.

Explain these terms:

- craft production: System in which highly skilled workers use simple, flexible tools to produce small quantities of customized goods, Or one person (or perhaps a small crew) would be responsible for making the product from start to finish.
- mass production: System in which low-skilled workers use specialized machinery to produce high volumes of standardized goods.
- division of labor: An operation, such as assembling an automobile, is broken up into a series of small tasks and one of those tasks is assigned to a worker who repeats it on each individual product. Or The breaking up of a production process into small tasks, so that each worker performs a small portion of the overall job.
- interchangeable parts: Parts of a product made to such precision that they do not have to be custom fitted. Or Standardized parts, so that any part in a batch of identical parts would fit any individual product coming down the assembly line.
- outsourcing: Buying goods or services instead of producing or providing them in-house.
- technology: The application of scientific discoveries to the development and improvement of goods and services.
- Pareto Principle: a relatively small percentage of items or factors are very important in achieving an objective or solving a problem.