**Topic 1: Introduction to Operations Management**

 **Overview**

This topic explains the concept of operations management and its importance to a firm. This is because the success of a firm is dependent on it. It is the only function in a firm that is engaged in attaining revenues for the firm. It also deals with the roles and duties of operations managers and their involvement in dealing with supply chain members to gain comp0etitive advantage.

**Learning Outcomes**

By the end of this topic, you will be able to:

1. explain that operations management involves two aspects: the production of products and the non-core production related processes such as purchasing, physical distribution , after sales service and so on that contribute to the production and the delivery of the products.

2. identify the conversion process:

 Inputs Transformation/conversion process Outputs

 Comparison:

 actual vs desired

3. explain the management of the operations subsystems as making up of planning,

 organising and controlling and the problems face by the operations manager

4. explain that operations is the core function of an organisation and that the existence of

 other functions and the organisation are dependent on it.

5. relate that strategic decisions related to operations management are based on

 knowledge and information.

**Introduction**

1.1 In the 1960s the term operations management has been accepted instead of

 production or manufacturing management. It has expended the scope of production to

 include the noncore production processes which in fact relates the involvement of the

 entire organisation.

 The model to explain operations and process management is as follows:

 **Direct**

 Steering operations & process

 **Develop**  **Design**

 Improving operation’s 3 Shaping processes,

 capabilities products & services

 2 **Deliver 4**

 Planning & controlling

 ongoing operations

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1.2 Operations Management and Decision Making

 The operations manager plays the chief role of planning and decision making with

 regard to the setting of the objectives and taking actions to achieve them. Managers

 make informed decisions especially in about ten strategic decisions.

1.3 Operations in the service sector involves the intangible service products. They include repair and maintenance, government, food and lodging, transportation, insurance, trade, financial, real estate, education, legal, medical, entertainment and other professional occupations. There are seven differences between goods and services

1.4 New trends in operations Management:

1. Ethics become more criticalwhen making purchases to ensure cujstomers receive the quality products.
2. The focus is global because of a large common market
3. There is consistent rapid product development because of intense completion.
4. Production has become environmentally sensitive - minimising resource usage , biogradable, recyclable and environmentally friendly.
5. Mass customization as the world has become a marketplace.
6. Empowered employees as employees are educated and capable.
7. Supply chain members become partners
8. Just-in-time performance as there is no holding of stocks.

1.5 Review of Topic 1

 A case study: “Hard Rock Café: Operations Management in Services”.

**Lecture Notes**

**1. Operations Management**

Production or manufacturing management has been associated with the operations management. It is mainly concerned the production of products and services. Starting from 1960s, the term ‘*operations management’* has been commonly used. This is because operations management is more inclusive concept in the sense that it involves 2 aspects: the production of products and the non-core production related processes such as purchasing, physical distribution, after sales services and so on, that contribute to the production and the delivery of the products. It is apparent that the term operations management actually involves the whole organisation. All parts of an organisation are involved with production.

In short:

 *Production/manufacturing management* ***Operations management***

 ***Operations and process management***

Operations and process management is fundamentally about how organisations produce goods and services.

The persons involved in the operations are the operations manages while other managers in an organisation are involved in managing the operation processes such as marketing, sales and finances, making marketing plans, sales forecasts, budget and others.

It is apparent that a business organisation is made up of the operation function and the related operation processes. The operation is concerned with the transformation of inputs into outputs while the processes are the component parts of the operation. The term operations and process management is inclusive of two aspects: production and the related processes.

The importance of Operations and Process Management

1. Operations management can make or break a business. This is because an effective operations management can bring the cost down, and help to develop capabilities to gain CA.
2. It shapes the strategic direction of a business. It is able to respond to the changing environment of the market and to gain CA.
3. It is applicable to all types of enterprise and is therefore important to all sectors of an economy.
4. The manufacturing sector contributes 30% of the jobs in an economy while the service sector contributes about 70% of the jobs in an economy.
5. Managers in all the functions of business are spending more and more time managing processes and that the principle practice of operations management is relevant to them.
6. Managers involve in operations management have to work at all three levels of analysis - the individual process, the operation itself and the supply network.

Operations Management and Decision Making

The operations manager plays the chief role of a planner and decision maker and has considerable influence over the realization of the objectives of the organisation. It is imperative that the operation manager is able to make informed decisions. This implies that he must be able to make use of models, quantitative methods, analysis of trade-offs, establishing priorities, ethics and the system approach.

What operations managers do?

They involve in making 10 strategic decisions relating to:

1. Design of goods and services
2. Managing quality
3. Process and capacity of design
4. Location strategy
5. Layout strategy
6. Human resources and job design
7. supply-chain management
8. Inventory, material requirements planning and JIT
9. Scheduling of production
10. Maintenance - how do we build reliability into our processes?

Why study Operations Management?

1. We study how people organise themselves for productive enterprise.

2. We come to know how goods and services are produced.

3. We get to know and understand what operational managers do.

4. OM provides the major opportunity for an organisation to improve its profitability and enhance its service to society.

5. OM is the costly part of an organisation where a large percentage of the revenue is spent to run the OM function.

Differences between goods and services

|  |  |  |
| --- | --- | --- |
| No | Goods | Services |
| 1 | Tangible | Intangible |
| 2 | Produced and stored as inventory | Produced and consumed simultaneously - no stored inventory (inseparability) |
| 3 | The same goods provided to customers | Unique to each customer |
| 4 | Do not have high customer interaction - manufacturer is responsible to the quality of the goods | High customer interaction - a shared responsibility. |
| 5 | Consistent product definition | No consistent product definition because of different customers’ preferences |
| 6 | Can be automated - a product line can be constructed | Knowledge based - medical service, tourism service, education |
| 7 | Are available in certain places | Possible of dispersion i.e. a service can be brought to the customers in different places. |

Growth of services - in USA and Singapore, about 70% of the people are working in the service sector and 20% - 30% are in the manufacturing industry.

Two reasons for the decline in the employment in the manufacturing sector:

1. More efficient ways to produce goods because of technological advances, require less workers.
2. Outsourcing of parts from other more cost-efficient companies help to reduce the production costs.

Trends in Operations Management

1. Ethics is becoming more critical in making purchases from suppliers in order to ensure the customers receive the quality products.
2. The focus is global because the world has become a large common market.
3. There is consistent rapid development of products.
4. There is a need to design products and packaging that minimise resource use, are biodegradable, can be recycled and are generally environmentally friendly.
5. As the world is the marketplace, there is a need to understand the cultural and individual differences among the people in order to succeed in the business.
6. Employees are to be empowered because they have become more educated and technologically capable and therefore in a position to make decisions.
7. Operations managers have to be more involved in outsourcing and building long-term partnerships with members in the supply chain.
8. Just-in-time performance is being accepted to help reduce holding of financial resources in inventories and enhance responses to rapid changes in the marketplace.

(Sources:

1. Nigel Slack, Stuart Chambers, Robert Johnston & Alan Betts, 2009. Operations and

 Process Management (Principles and Practice for Strategic Impact) 2nd edition, pp. 4- 6.

2. Heizer, J. and Render, B. (2011). Operations Management, (10th ed.) Prentice Hall,

 England.)