

# Operations Management in a Demanding World for SMEs

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**Abstract:** *Operations management comprises those areas of management that are concerned with productivity, quality, and cost in the operations function. An organization role is to convert raw material into useful product or service by using manpower, capital, machines and suitable processes. With increased globalization and short product life cycle organizations must look into their operations for better ways to meet the needs of the customer. New methods used in operations management not only makes the work place interesting but also improves the rating of the organization in the eyes of the customer. Small and medium-sized companies form a vital link in the progress of bigger companies. The responsibility of the operations-in-charge is enormous and the success of the firm depends on how planning and other activities are streamlined.*

## I. Introduction

It is a well known fact that small and medium enterprises (SME) play an important role in the sustenance of large corporations. Due to large overheads of such companies, non-value addition operations are off-loaded to vendors so that only critical value-added services are carried by big companies. There are a lot of small companies all over the world. These companies belong to many sectors and each of them has to vie with the other for a share in the market. As the market is shrinking due to global competition, how a small and medium enterprise fares is all dependant on its operations management. These companies are small in terms of revenues, people and facilities and many a times the owner himself is responsible for carrying out all operations. Under such circumstances the time available is meager and tremendous pressure is exerted on the owner.

Operations management is all about managing the organizations various departments so that all the processes are efficient. Today there are a lot of tools which help in effectively controlling the operations of an organization or enterprise. Some of them like TQM, lean manufacturing, just-in-time, etc, play an important role if effectively implemented.

Any business enterprise will strive to achieve a good working environment, growing customer base, lasting relationship with vendors and have

strong capital. Total quality management is the buzz word in today's industry circles. It improves the organization's standing in the market especially in terms of customer service. Lean manufacturing is helpful in reducing waste, improving quality and making product reach the customer in a short time. This is helpful especially if the product-life cycle is very small. As the requirement of the customers keep varying, any product should have less lead time, have less processes and have low inventory.

The person in-charge of this operation management should be highly capable of amalgamating all the functions of the organization with a goal-oriented approach. All the departments add value to the end product. For example, the accounting department adds value to the organization's activities by making sure that the employees, distributors, and suppliers are all paid promptly. Human resources department also supports business operations by developing and implementing policies and procedures that ensure that employees are treated fairly and are motivated to use their skills and talents in helping the business become a high performing organization. These days operations management is extended to include suppliers, logistics providers and even retailers.

Any organization should set itself goal and objectives and work towards its achievement. When setting the goals, the current practices should be studied and unwanted ones have to be eliminated so that the process is made simple. In spite of pressures from marketing department and top management, operations managers should see that the vision and mission statements of the organization are never compromised but at the same time meeting the targets.

## II. Tools for operations management

### A. Lean Manufacturing

Lean Manufacturing is manufacturing philosophy that attempts to eliminate all waste from production processes. The objectives of lean manufacturing are to lower production costs, increase output, and shorten lead times. To do this, lean manufacturing efforts attempt to do several things. First, lean manufacturing efforts attempt to reduce defects and unnecessary physical waste during the production process. This includes reducing the excess or unnecessary use of raw materials or other inputs,

reducing the number of defects and their associated costs, and reducing or eliminating product features that are not of value to the customer. Lean manufacturing efforts also attempt to reduce manufacturing lead times and production cycle times in the manufacturing process. This can result in less cost associated with storage of materials and products and the ability to get products to the customer in a more timely manner. Similarly, lean manufacturing attempts to minimize inventory throughout the production process. This practice helps reduce the amount of working capital needed to sustain operations. Just-in-time manufacturing is a manufacturing philosophy that strives to eliminate waste and continually improve productivity. The primary characteristics of just-in-time manufacturing include having the required inventory only when it is needed for manufacturing and reducing lead times and set up times. In addition, lean manufacturing attempts to optimize the use of equipment and space to reduce or eliminate bottlenecks in manufacturing processes and optimize.

### B. Total Quality Management

Total quality management is a philosophy that looks in the quality aspects of every department in the business enterprise. In a TQM environment every employee is treated as a customer and continuous training is a regular approach. Emphasis is laid on improving of the quality of the product, providing a good work environment, and providing a good leadership. Quality circles are created where people voluntarily meet to solve problems. Quality circles change the attitude of the people by creating a team culture and quality is taken to all levels. The advantages of TQM include financial gains, less wastage, customer and employee satisfaction. TQM translates from compliance to specification empowering people and also caring for them.

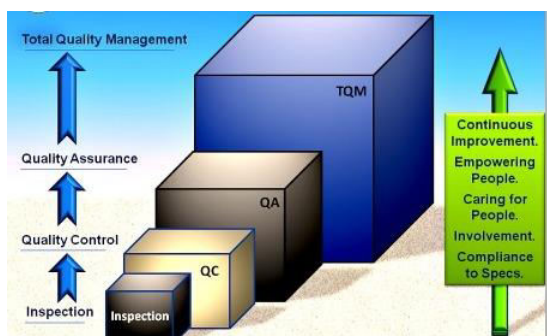


Fig. 1 Evolution of TQM

### C. Enterprise Resource Planning

Enterprise resource planning (ERP) integrates all business process and is a helpful tool to take decisions. ERP also brings in discipline among all the employees as it is responsible for live data (information) of the organization. A common ERP system can be implemented across various locations of a company. Leading ERP systems have been developed are SAP Labs, Oracle, Ramco Systems, TCS to name a few. A good ERP systems looks into the planning, quality, sales, finance, human resources, customer service and other functions so that they get the maximum efficiency. The origin of ERP is the MRP or materials resource planning.

### D. Just In Time

Just-in-time is a production concept developed in Japan at Toyota works. It is also known as Toyota production System. Just-in-time manufacturing encourages the 'right first time' concept, so that inspection costs and cost of rework is minimized. When the inventory reaches minimum level, fresh stocks are ordered mentioning the delivery schedule. The major benefit of JIT is elimination of over production. It eliminates wastes and storage space as the components and assemblies are made available at the right time. Further a company which follows JIT need not have an inward inspection team; the suppliers assure the quality of the components. Therefore the trust reposed on the supplier will be very high. This Just-in-time system works on pull system where all the components manufactured will be consumed.



Fig. 2 JIT Concept

### **Conclusion**

All said and done, some organizations fail in proper management. While it is very easy to put it on paper, controlling all the activities on a regular basis, taking corrective actions, executing plan B in case of failure of plan A are the difficult assignments. Even corporate companies with large financial resources have become victims of poor operation management failures. By employing some of the tools described above, like good strategic planning and proper use of company's resources like people, technology and equipment and good leadership, SMEs can succeed in the face of stiff global competition. SMEs have to employ a person to look after the overall operational functions of the company.

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