

Operations management as a source of competitive advantage essay sample

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



Executive Summary

The following assignment looks at operations management as a source for gaining a competitive advantage, operations management and TQM are defined and discussed as to their importance in the organisation. The differing ways of gaining a competitive advantage are explained as is the way organisational structures and the implementation of technologies aid the building of these advantages.

The Cambrian Conservatory and window world is used as an example of efficient operations management.

Introduction

Operations management is based around the decision-making associated with the use of resources that enable an organisation to provide products that satisfy customers and enable the organisation to compete with others in the same market on cost, quality, speed, dependability and flexibility.

Superior performance within an organisation can be achieved by gaining a competitive advantage.

“ The essence of competitive advantage can be interpreted as the asymmetry or differential among firms along any comparable dimension that allows one firm to compete better than its rivals.”(1)

It is argued that quality is the most important of all competitive weapons, attention to quality within an organisation means improved performance in reliability, deliver and price.

Quality can be defined as “ the fitness for purpose or use”(2)and it has been stated that “ quality should be aimed at the needs of the consumer, past and present”(3).

In the following assignment, the implementation of operations management techniques to increase competitive advantage will be discussed with references to organisations that have used these techniques. The Cambrian Conservatory and window world (CCWW), a Swansea based double-glazing company will be the main source of study.

Section A: theory

Operations Management

Operating systems within an organisation span across the following areas:

Manufacture

Transport

Supply

Service

Operations managers deal with processes within these areas, processes are the fundamental activities of an organisation. They manage processes as to

add the most value possible to the customer. Operations managers do this by using suitable techniques and strategies. Managers can design and operate processes to give the organisation a competitive advantage.

A process takes one or more inputs, it then transforms and adds value to it and provides one or more outputs.

Appendix 1 displays this process

Benefits of Operations Management

- *Improve operational control
- *Reduces labour cost and waste
- *Improves product costing
- *Tracks labour and machine resources
- *Enables real-time decision making
- *Gains a competitive advantage

The decisions of an operations manager are critical to an organisation. There are two types of decisions in operations management. The first are strategic decisions, these are long-term choices. The second are tactical decisions, which are short term. Operations managers are generally faced with the following issues:

- *Processes: including technological issues.

*Quality: Underlining all processes and work activity. Ops managers must set objectives and find ways to improve the organisations products and services. (TQM)

The use of inspection and statistical methods to monitor quality (Statistical process control).

*Capacity, Location and Layout: involved with global operations and physical layout (long term decisions).

*Operating decisions: Operating the facility after building, co-ordination of supply chains. Forecast demand and control output levels. (resource planning). Choosing which customers get top priority.

Total Quality Management

Total Quality Management (TQM) can be summed up by the phrase, “ getting it right first time”, it is of course cheaper this way, there will be reduced losses in internal costs of materials, wages, delivery, re-inspection etc. and External costs, such as repair bills, legal costs and warranties. There are additional costs involved when implementing TQM, including training, planning and operating the new system. These costs will be heavily outweighed by the increase of net income achieved by the implementation of TQM.

Cost cutting is not the only reason for TQM, the philosophy behind it agrees with the basic marketing concept. It is a philosophy that puts the consumer

at the centre of the organisation. TQM states that it is essential to satisfy consumer's needs to encourage customer satisfaction and in turn loyalty.

The simple reason for consumer satisfaction is: if a customer is not satisfied with the product, he or she will not repeat purchase. Even worse, the consumer will not recommend other potential consumers to purchase. And if the consumer is very dissatisfied he/she will almost certainly go out of their way to tell other potential consumers not to purchase a certain product.

By building TQM, we are gaining a competitive advantage of quality, the effects of having a good reputation for quality is easily seen in the Japanese electronics industry. The improvement of quality has meant the gradual building of their reputation's from 'cheap and nasty' to 'high tech and desirable' and of course meant a huge increase in sales.

See appendix 2 for Deming's Chain reaction model of TQM.

Types of competitive advantage

Strategies based around competitive advantage see three main areas as important levels to compete on:

*Differentiation (being better)

*Cost leadership (being cheaper)

*Response (being faster)

These advantages can be obtained in a number of ways. A Competitive Advantage could span from two types of organisational power:

1. Positional: a status-defining position that leads to better company performance.

Positional advantage comes from an organisations unique host of resources, its market position, and other traits that are relatively static in their nature. It is based on the company's status, social or economical, actual or perceived, in the eyes of customers, competitors, partners, regulators, and other stakeholders.

2. Kinetic: advantage gained by the organisation's ability to act.

kinetic advantage comes from an organisations knowledge, expertise, competence, or capabilities. It is based on an organisations competence and skill in conducting business activities, including:

*The ability to identify market opportunities,

*knowledge of customers

*technical know-how and capability

*speed of action and response in the marketplace

*and efficiency and flexibility of business or organizational processes.

Positional and kinetic advantages interact, they are linked in that kinetic advantages arise from positional ones and, in-turn, kinetic advantages

strengthen positional ones. Without Kinetic advantages, the future positional advantages of the company are at threat, and if the organisation lacks positional advantages, Kinetic advantages will never reach attain their potential success.

An organisation must keep the upstanding elements of these advantages stable and fresh over time for the advantage to be maintained.

Advantage Through Technical Capability

Marketing proficiencies allow an organisation to identify its customers and visualise its opportunities, and it is the organisation's technical capability that serves the customers through technologies and operating processes. The advantages to be gained here are simply explained: If an organisation's technical capability allows it to be more efficient, flexible, and delivers a higher quality in its operation to customers and does so quickly in response to customer needs, sales will increase.

Organisations use their technical capabilities to gain an advantage by using them:

Creatively: To design and develop a new product (R&D), eg Sony, Apple Mac, Microsoft, Gillette.

Efficiently: Using robots, information monitoring techniques, E commerce and internet communications, an organisation can produce more efficiently.

Mainly apparent in standardised products, eg cars, TVs and toothbrushes.

Flexibly: organisations with flexible operating systems can react to changes in the market place quicker than competitors with rigid technological systems in place.

To enhance Quality: An organisation whose technical process and capability allow it to achieve high quality in its products and production has the advantage of creating customer value. Motorola vowed that production would be successful 99.9997 percent of the time. The “six-sigma” program saved Motorola \$500 million in 1990 alone.

To increase speed: Product design and production must be done at pace to win customers in such a dynamic environment. The most obvious example to mention here is Kwik-Fit, who advertise their competitive advantage as “you can't get quicker than a Kwik-Fit fitter”.

Advantage through organisational layout

Operations managers must build relationships with others inter-organisationally (suppliers etc) and intra-organisationally (with colleagues through cross functional co-ordination)

Cross functional Co-ordination

This approach to gaining a competitive advantage basically suggests that communication, the life blood of an organisation, should exist between all departments of the organisation. Communication and understanding creates a unified organisation with common goals and efficiency in strategic plans.

Organisational structures should be flat, the hierarchy must support cross

functional co-ordination by reducing the formal communication channels.

Deming also suggests the that removal of fear and ' Blame' Culture is important.

Departments must be brought together to solve problems, this way, input from different areas of the organisation result in a holistic, efficient response.

Managers must improve information systems and set up informal social systems of communication, for example mixed canteens and out of work social activities.

The strongest links with the operations department are in the Marketing and accounting departments.

The marketing department determines the customers need and forecasts the demand.

The Accounting department helps operations managers to understand their current performance, labour costs and the benefits of new technologies.

Without cross-functional co-ordination, operation systems such as inventory management, scheduling and capacity management will be inefficient and definitely not cost effective. A lack of understanding for strategic goals wastes resources and could result in the wrong product being produced.

This, in-turn bumps up product prices and losses customer attractiveness. It is therefore a wise assumption that cross-functional co-ordination can be used to gain competitive advantage.

Advantage: Productivity through process

As previously discussed, the operations manager decides what processes exist within the organisation. The Operations manager must decide on inspection routines and how much to order and when. Certain organisational tools can be used to aid the planning of processes.

(1)The Flow chart

(2)Cause and effect diagrams

(3)Control charts

(4)Histograms

(5)Check sheets

(6)Pareto charts

(7)Matrix diagrams

Operations managers use these amongst other tools to display information visually. With the use of these graphical tools, problems and improvements are easily visualised.

Productivity = Output

Input

Productivity can be improved by getting a higher output figure without increasing that of the input. Or keeping the same output figure while reducing that of the input.

Operations Managers must manage aggregate capacity within the organisation, there is no set method of ordering stock/materials to gain optimum efficiency, the model used differs between organisations (see Appendix 3 for the models used).

Implementing Changes in operations

Once we have a competitive advantage, it is essential to sustain it through reacting to changes in the organisations environment.

The incremental model of change splits the organisation up into segments, which react independently to change, where management make decisions independently of other divisions of the organisation. With time the organisation will have morphed into a modern version of its previous self.

The usage and success of this model is widespread, its “ bit-by-bit” method is attractive as it spreads the workload over time and the organisations resources. Dangers with this model lie in bad communications. If communication links throughout are good, the smooth running of a constantly evolving organisation is to be expected. But if communications are bad, the organisation will suffer heavily.

Through a systematical innovation process the implemental model of change promotes a higher level of quality with lower costs.

Section B: case study

The Cambrian conservatory World, based in Parc-Tawe, Swansea is a fifteen year old company. Last year, the company was split into two separate companies and the private sector side of the organisation was taken over by one of the original partners. With this acquisition, the new managing director made serious changes to Cambrian. There are now no boundaries preventing him making changes where he was restricted before. At present, Cambrian use its old supplier to purchase material from.

The operations that exist within Cambrian are:

- *Preparing quotations

- *Sales transactions

- *The ordering and installations of conservatories and Windows

Preparing quotation, process example: see appendix 1

The competitive advantage that Cambrian relies on is purely differential. Cambrian offers the consumer unique, custom built hardwood conservatories and award winning Nexus safety plastic windows and doors with Teflon coated locking systems. Cambrian is becoming known for this quality offering and are reaping the benefits of word of mouth and public relations in this area.

Cambrian are limited in their response to market demands and cost competitiveness by their suppliers. The organisation is finding it hard to break away from this relationship. As a new, separate company it can not

afford to set up its own factory, the reliance with the Pembrokeshire based Cambrian Trade owned factory is a limiting factor.

Cambrian shares both positional and kinetic competitive advantages, its positional advantages are:

- *Market position in south Wales is good.

- *Unique designs with quality resource materials

Cambrians Kinetic advantages are:

- *Awareness is growing due to newly implemented marketing strategies

- *Technical capabilities of staff, sales reps and fitters are all very experienced employees in the home improvement field.

- *The flexibility of products

Cambrian use technology within the organisation to aid competitive advantages. Technologies include, database system of actual and potential consumers, interactive quoting system, CAD, E-mail quote ordering, E-commerce with suppliers.

Representatives go on sales leads with a laptop equipped with precise quoting software which produces an accurate, visual display of the product. The consumer can then see what he/she is being offered. Cambrian uses this technology as a selling point:

“ Most dems (demonstrations) we go on are impressed by the quoting system we use... they are glad to have a hard copy (print out) of the quote... it's a good selling point because they can look at their future conservatory after I've left” – Leighton Uphill Sales manager, Cambrian.

Example: The use of technology to aid quoting:

Creativity: On screen display of product that is fully adaptable by size, colour, style and material.

Flexibility: fully interactive, feedback allows Rep to alter product in any way

Efficiency: No leeway for costly mistakes such as underquoting. (design is linked to price database)

Enhanced quality: A precise quoting tool, consumers can keep print out plans.

Speed: An instant quote, building can begin within 3 weeks (precise plans are passed on to surveyors and fitters with no negligible mistakes due to software accuracy).

Organisational layout of Cambrian

Cambrian is a fine example of Cross functional co-ordination, the organisational structure is very flat. There are good communications links between differing departments and all work is aimed at common goals.

Meetings take place at the beginning and end of each working week where

sales and targets are discussed. Each member of staff is asked for input at these meetings where all organisational issues arise.

Cambrian also has good communications links with their suppliers. All members of staff know each other on a personal level, this is partly helped by the size of the company (only 38 employees) who have all worked there for at least 2 years. Another factor helping these relationships is the regular social evenings (at least once a month) where everyone attends.

Processes in Cambrian

Flow chart demonstrating sales:

Customer contacts Cambrian either by phone or email

Rep demonstrates product

Gives quote

If yes proceed If no

Customer visits showroom to see example of built version

Cambrian receives a deposit (full payment depends on agreed plan)

Surveyer visits site

Gets planning permission

Order is put in for materials

Set a date for work to begin

Fitters arrive and start to build

Finish

Customer service

Productivity in Cambrian

The productivity figure from the equation has increased by reducing overheads, thus lowering the 'output' figure. The Telesales department was closed and hours were reduced for non essential full time staff immediately after the company take over (thus reducing wages bills). More frequent radio advertising and sponsorship have replaced the non-productive telemarketing team.

Capacity Management in Cambrian

The chase model of capacity management is used in Cambrian, orders are only put in when requested. (see Appendix 3 for models).

Managing Operational Change in Cambrian

New product lines are introduced incrementally. The Hardwood conservatory is a new product line and if it does well, hardwood windows and doors will follow.

Recommendations

Cambrian need to establish new relationships with other suppliers so they can also compete on the grounds of cost. The single competitive strategy they are currently employing is working (turnover up 30% since takeover in June) but with the advantage of cost over their competitors, Turnover would increase again.

Just having the competitive advantage of quality is not enough, in such a crowded market place.

Conclusion

With the research and completion of this assignment, it has become apparent to the author how important Operations management really is. Today's consumer is no longer reliant on any one organisation to fulfil his/her needs. In the majority of markets they are now spoilt for choice and being customer-focused is an essential strategy for organisations. The organisation must supply the consumer with quality products at competitive prices. The organisational manager has many tools available to him to help these objectives. Few of which are discussed in the above assignment.

Cambrian was a good source of reference as they are efficient in gaining a competitive advantage through organisational strategy and the use of technology.

Modern day technologies aid the management process. In brief, for operations management to achieve a competitive advantage it has never

been so hard, but the technological resources available have never been so plentiful.

Appendix 1: preparing an interactive quotation.

Appendix 2, Deming's Chain reaction model of TQM.

Appendix 3 Ways of reconciling capacity and demand

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