# BENCHMARKING THE BUSINESS AND OPERATIONS STRATEGY LINK

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### **ABSTRACT**

This paper reports on the use of benchmarking to improve the links between business and operations strategies. The use of benchmarking as a tool to facilitate improvement in these crucial links is examined. The existing literature on process benchmarking is used to form a structured questionnaire to apply to six case studies of major manufacturing companies. Four of these case studies are presented in this paper to highlight the use of benchmarking in this application. Initial research results are presented drawing upon the critical success factors identified both in the literature and on the case results. Recommendations for further work are outlined.

#### INTRODUCTION

This paper examines the emerging role of process benchmarking in manufacturing industry. The existing literature stresses the importance of examining which function to benchmark, with activities having to be prioritised, a common mistake being attempting to benchmark everything [1]. Problems with benchmarking in the past have been attributed to the poor selection of the process to be benchmarked. Particularly important in this paper is the work by Walleck et al, who announce the need for an understanding of both the current and prospective role of the company in the supply chain [2].

# Benchmarking Literature

A structured questionnaire was developed from the existing literature on both benchmarking and the business to operations strategy link. For example, Sweeney presents a recommended methodology for the use of benchmarking to improve manufacturing competitiveness [3]. Some of the issues considered by the questionnaire are now highlighted.

Partovi highlights 4 ways of identifying partners [1]:

- 1) Internal operations best performing unit internally.
- 2) Competitor.
- 3) Best-in-Class any industry- activities analogous to company.
- 4) Strategic integrates strategic competitive analysis with best-in-class. How a company should position its product in relation to competitors and suggests what needs to be done to processes or functions to support those competitive advantages.

Daugherty et al test 4 hypotheses regarding benchmarking [4]. These were also tested out in the case studies:

- 1) There appears to be more or greater levels of benchmarking associated with larger firms annual sales measure.
- Significant resources are required to develop benchmarking programs.
- 2) Benchmarking involvement is related to internal performance and supplier performance measurement programs.

3) Benchmarking involvement and formalization of senior level plans and goals are related. Mission statements, strategic plans etc. help maintain focus.

Benchmarking can help to identify appropriate goals - results used as inputs to planning process.

4) Benchmarking involvement and technology adoption are related.

Benchmarking exposes management to the external environment (predictor of technology adoption).

The existence of the key success factors identified by Ohinata, were also exmained [5]:

- 1) Formal approach
- 2) Top management involvement
- 3) No competition in areas of information shared.
- 4) Information exchanges must be both ways.
- 5) Relationship formed -stakeholder/alliance
- 6) Among equals
- 7) Organisational size similar.
- 8) Not too much work involved for target organisation.

# Business/Operations Strategy Link Literature

Fundamental to the field work was a detailed understanding of the concept of core competence, the identification and use examined by Tampoe [6]. Interdepartmental conflict was also examined in detail, particularly with reference to the problems caused by poor sales forecasting and the flow of products between the company and its environment, and the product flows within the company [7]. Resolution of such conflict was also investigated in detail [8].

## **METHODOLOGY**

Six manufacturing companies were visited by the authors during the Autumn of 1994. Indepth interviews with senior managers were carried out using a structured questionnaire. The objective was to gauge the extent of benchmarking within each of the target institutions, particularly with reference to the link between business strategy and operations strategy. After initial background information was received from each company, interviews then focused on ascertaining the demand pattern, product flows within the company and with the environment, identification and use of core competences, business strategies, manufacturing strategies and performance measures. The remainder of the interviews examined the benchmarking principles undertaken within the company. Four of the companies visited are now presented as case studies.

# **CASE STUDIES**

#### Case A

This company are a large beer producer and distributor, and owner of public houses. They have five breweries around Britain, five primary and 23 secondary distribution depots. All of the company's breweries operate through one logistics system in Edinburgh. Demand is erratic for many types of beer. Many customers demand extra kegs due to perceived shortages of product at peak times. The only significant build of product is before Christmas.

Benchmarking is carried out to a large extent with another brewery in England, particularly with regard to the logistics function, which is one of the core competences of the company. Collaboration between the two companies now runs to integrating the flow of material on their trucks.

The company is actively involved in an integrated logistics approach for the company and the building of mutual relationships with some of their competitors. Identifying and then using integrated logistics as a core competence has brought many competitive advantages, with a reduction in production and distribution costs. This is thought by the company to be a powerful tool when used to generate benefits to the customers and consequently leading to an increase in sales. Further improvements have resulted from the use of their own pallet size and non-curtain sided vehicles.

The main performance measures used by the company are cost of production, stock availability to sales, transportation flow and internal and external service agreements.

## Case B

This company operate in the medical supplies industry. As part of a large group of companies, the company competes directly with its sister companies. This however has changed in recent years with current rationalisation plans based on the focused factory approach. The number of European manufacturing plants has been reduced from four to three with strong possibilities existing for this to be reduced to two plants in the near future.

The business strategy of the group is to harmonise regions, with cost efficiency and customer satisfaction. As part of this strategy, logistics, accounts and IT have been centralised in Brussels. The company are also focusing on re-engineering many of their processes.

Critical success factors for the company are; service, manufacturing efficiency, automation and profit - all linked to strategy. Demand for exports are volatile in this environment, and demand can be dependant on the outbreak of wars, famine, and government money. A core competence of the company is having the flexibility to cope with rapid changes in customer requests.

Internal benchmarking is carried out against the other plants in Europe. This is facilitated by visits and seminars. The free flow of information is a corporate requirement even though the plants are competing.

The company are moving towards best-in-class benchmarking of a number of processes to aid operations flexibility. However, at the moment, this is very much on an ad hoc basis. For example, customer service levels, customer involvement, getting products to the customer.

The main measures of performance are; production performance, financial control and service to sales.

## Case C

This company manufacture and assemble specialist products for the road and rail industry. The company have approximately 55 employees and a turnover of £4 million, and are part of a large engineering group.

No benchmarking is carried out at present, but the management team are aware of the possibilities offered by benchmarking. Many of the problems inherent in business to operations links are present within this company. An education and training program is being developed to help the company overcome some of the linkage problems via benchmarking. A major problem however, given the size of the company, is the lack of people who are not involved in the day-to-day operations of the business.

- i) Encouraging participation of managers in the formation of the strategic review.
- ii) Overcoming interdepartmental conflict.

The Technical Department and Sales Department have a good relationship. However, the co-ordination between the Technical Department and Materials Department could best be described as fraught. This appeared to be down to the personality of the Materials Manager, who had been allowed to develop his role beyond his abilities, and assumed responsibility for other managers.

Interdepartmental co-ordination is a goal of the benchmarking program. The objective should be to achieve the integration of joint goals and responsibilities. Good co-ordination is characterised by departments helping out each other at will.

## Case D

This company are a first-tier supplier in the automotive industry. Part of a global group, they operate in business units. They are extensively involved in benchmarking but mainly on an internal basis. That is, individual manufacturing plants exchange ideas. A recent example of process benchmarking has been a study of data integrity and availability. A best-in-class exists in this process within the group. Moves are now underway to examine the possibilities of benchmarking with external partners.

With regard to the business to operations link, inter-departmental conflict exists, with the purchasing department 'protecting' suppliers. In addition, different attitudes to change exist in different areas of the organisation. These problems are potential areas for examination by process benchmarking.

## **RESULTS**

Initial results are encouraging with regard to the application of benchmarking to the Business/Operations link. A model is being developed for validation in a larger range of companies. The model is based on the initial case study work and a detailed examination of the existing literature. Some of the major characteristics that have already been identified in the model are now presented:

- 1) Identification and use of core competences, and the role offered by benchmarking after these competences have been identified.
- 2) Role of communication.
- 3) Conflict resolution.
- 4) Organisational Design
- 5) Communications within companies.

Methods of improving interfunctional communication:

- 6) Reward Systems
- 7) The application of techniques and philosophies such as Just-In-Time and Business Process Re-engineering.

# CONCLUSIONS/RECOMMENDATIONS

Work is under way to examine a larger number of manufacturing companies over a longer period of time. A model is being developed to help companies via the use of benchmarking address potential problems in establishing better links between the business and operations strategy.

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The work outlined in this paper is therefore on-going. Potential exists to focus the model on other activities such as decision-making processes and new product introduction procedures. Voss et al conclude that basing benchmarking on more rigorous academic foundation leads to frameworks and tools that are not just useable by companies, but go beyond the simple to something that can lead to real improvement [9]. Initial findings in this paper substantiate this.

#### REFERENCES

- [1] Partovi F.Y., Determining What to Benchmark: An Analytic Hierarchy Process Approach, International Journal of Operations and Production Management, 1994, vol. 14, no.6, pp25-39.
- [2] Walleck, A.S., O'Halloran, J.D. and Leader, C.A., Benchmarking World-class Performance, The McKinsey Quarterly, 1991, no.1, pp3-24.
- [3] Sweeney, M.T., Benchmarking for Strategic Manufacturing Management, International Journal of Operations and Production Management, 1994, vo.14, no.9, pp4-15.
- [4] Daugherty P.J., Droge C. and Germain R., Benchmarking Logistics in Manufacturing Firms, The International Journal of Logistics Management, 1994, vol.5, no.1, pp9-18.
- [5] Ohinata Y., Benchmarking: The Japanese Experience, Long Range Planning, 1994, vol.27, no.4, pp48-53.
- [6] Tampoe M., Exploiting the Core Competences of Your Organization, Long Range Planning, 1994, vol.27, no.4, pp66-77.
- [7] Powers T.L., Sterling J.U. and Wolter J.F., Marketing and Manufacturing Conflict: Sources and Resolution, Production and Inventory Management Journal, 1988, 1st Quarter, pp 56-60.
- [8] Crittenden V.L., Close the Marketing/Manufacturing Gap, Sloan Management Review, Spring 1992, pp41-52.
- [9] Voss C.A., Chiesa V. and Coughlan P., Developing and Testing Benchmarking and Self-assessment Frameworks in Manufacturing, International Journal of Operations and Production Management, 1994, vol 14, no.3, pp83-100.