Abstract

Stronger competition increases the importance of quality improvement. To solve their quality-related problems many small firms adopt procedures from the framework of Total Quality Management (TQM). One of these is Process Management, which has evolved as a widely used instrument for organisational change and improvement during the last decade. The importance of Process Management is further stressed by the fact that the new ISO 9000:2000 standards will demand organisations to be process-oriented in order to get certified. However, the theoretical framework that exists today within the field of TQM is based mainly on studies of large corporations. Theories, concepts and definitions developed with the large organisation in mind are not necessarily directly applicable in smaller organisations.

This paper presents results of a research project where obstacles and possibilities when using process management are being investigated. The focus is on enterprises with between 20 and 200 employees. The research consists of different phases; a survey of 1500 Swedish firms followed by an extended survey and two case studies.

Introduction

During the last decade process management, one of several methods within the framework of Total Quality Management, has evolved as a widely used instrument for organisational change, restructuring and improvement (Bergman & Klefsjö, 1994; Zairi, 1997; Hammer & Stanton, 1999). The importance of process management is also stressed by the fact that the new ISO 9000:2000 series strongly promotes the adoption of a process approach when developing, implementing and improving the effectiveness of a quality management system (CEN, 2000).

However, the theoretical framework that exists today within the field of TQM is based mainly on studies of large corporations. Theories, concepts and definitions developed with the large organisation in mind are not necessarily directly applicable on a smaller organisation (Storey, 1994).

Small enterprises have a critical role in the economy of many countries (Holliday, 1995) and are important as a mechanism for job creation, innovation and long-term development of the economy (Storey, 1994). Growth and performance in small enterprises are delicate matters depending on factors like ability to adapt to sudden changes, degree of formality and perceived dynamic of the corporate environment (Wiklund, 1998). Implementing process management within small enterprises could be inflecting these factors (Garvare, 2000).
Process Management

The traditional organisation is managed hierarchically in a chain of command. Information flows upward and decisions are deployed downward. Cross-functional issues are rarely addressed effectively and the performance of the organisation is sub-optimised. By using horizontal, or business process, management the organisation is viewed as a series of functional processes linked across the organisation, which is how the work actually gets done. Policy and direction are still set from the top, but the authority to examine, challenge and change work methods is delegated to cross-functional work teams. (DeToro & McCabe, 1997)

A series of linked activities that repeatedly transforms input to output could be considered as a process. A process has a beginning and an end, and has suppliers and customers. The suppliers and customers may be internal of the organisation or external. Often, the output from one process forms the input into the next. (Egnell & Klefsjö, 1995)

To function effectively organisations have to manage numerous interrelated and interacting processes. According to Zairi (1997) process management can be described as a structured approach to analyse and continually improve fundamental activities such as manufacturing, marketing, communications and other major elements of a company’s operations.

Some fundamentals of process management are to establish ownership of the processes and to listen continuously both to current and potential customers as well as to the suppliers. In this study process management was defined as systematic identification, monitoring, control and improvement of the processes employed within an organisation.

Survey one – mailed questionnaires

The first aim of this survey was to get in contact with managers in small enterprises in Sweden who claim they use process management within their companies. The second aim was to investigate how widespread the use of process management is in small Swedish enterprises.

A sample survey with mailed questionnaires was used as the method of data collection for the study. The target population was defined as managing directors of Swedish companies with between 10 and 200 employees. A list of sampling units was bought from the Swedish company PAR, consisting of 25 985 names. A random sample of 1 500 persons was selected from this frame. This design was chosen to facilitate the estimation of population parameters and sampling errors using statistical methods. The size of the sample was selected based on aspects of time and cost, but also because 1 500 persons were presumed to represent the population accurately enough, giving a tolerable bound on the error of estimation.

The questionnaire was constructed with five questions. After a pre-test it was sent out to all persons in the sample. The questions were closed and had three response options each:
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1. The organisation where I am employed
A. is using process management, completely or to some extent
B. has tried process management, but does not use it any more
C. has not used process management

2. Have processes within your company been identified and mapped?
   A. Yes   B. No   C. I don’t know

3. Have personnel within your company been trained in process management or other similar management concepts?
   A. Yes   B. No   C. I don’t know

4. Is there process owners established in your company? (Person who has the strategic responsibility for a process)
   A. Yes   B. No   C. I don’t know

5. Is there process managers established in your company? (Person who is responsible for the daily work in a process)
   A. Yes   B. No   C. I don’t know

Two weeks after the first posting reminders were sent to those who had not yet answered. The sampling frame did not match perfectly with the target population, leading to an error of coverage. Eleven questionnaires were returned because the addressees were no longer working at the company. In total 511 answers were collected through fax and mail. Two of these were duplicates. The response rate for the survey was 34 percent, see table 1.

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<th>Number of persons</th>
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<td>Frame</td>
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<td>Sample</td>
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Despite the fact that the questionnaires had been addressed directly to the CEOs about one third of the respondents were not the addressee but someone with another position at the company, for example owner, chairman of the board or quality manager. Almost without exception these positions represented roles within the senior management of the company.
To obtain some information on the group of persons who had not responded to the mail survey a special telephone survey was made on a random sample of 60 of the nonrespondents. The data analysis below is a weighted sum of the answers collected in the two groups; respondents and nonrespondents.

About 28 percent of the company representatives said that the organisation where they were employed was to some extent using process management. Less than one percent answered that their organisation had tried process management, but was no longer using this approach. About 68 percent said that the organisation where they were employed never had used process management. A total of four percent of the respondents and the interviewed of the nonrespondents did not answer the first question.

About 30 percent of the companies claimed to have been identifying and mapping processes within their company (see table 2). About 16 percent of the company representatives said that employees had been trained in process management. According to the answers process owners had been established in 22 percent of the companies. Also process managers had been established in about 22 percent of the companies.

A difference between the number of company representatives stating that their organisation is using process management, and the number of companies actually using process management the way it was defined in this study, could be expected. Therefore, conclusions regarding how widespread the use of process management is in small Swedish enterprises could not be drawn at this stage of the study.

However, the main purpose of the mail survey was to establish relations with managers in small enterprises that claim to use process management within their companies. About 200 of these persons answered the survey, a group which was considered to be large enough for further research.

Survey two – telephone interviews

A total of 62 companies participating in the mail survey were also studied using telephone interviews. This was a stratified random sample; all companies selected for the second survey had answered that they had some kind of process management system within their company.
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A guide with general definitions and open questions was sent to the companies before the interviews started. The aims of the telephone survey were to:

· Verify the answers received in the mail survey.
· Study the effects of process management within small companies.

The participating organisations were almost equally distributed between manufacturing companies and service companies. A majority of the companies had some kind of quality management system implemented within their organisation. On average the companies had 52 employees and had been using process management for about four years.

Of the companies that had stated in the mail survey that they were using process management almost one third were categorised during the telephone interviews as traditional functional organisations. None of the participating companies were entirely horizontally managed. Instead they used different kinds of hybrid organisations. Process owners and process improvement teams were managing and improving across functional units. Functional managers were used to provide specialised skills in areas such as marketing, product development and corporate finance.

About 20 percent of the companies in the survey said that the main motive to start using process management had been a pressure from external organisations such as customer companies and in some case parent companies. At a majority of the companies the general response from the personnel when implementing process management had been positive or very positive. About half of the companies reported that the commitment shown by the personnel had become higher due to the use of process management. Main problem areas included bureaucratic documentation procedures and difficulties when trying to involve older personnel and middle managers. Only a few companies reported lack of resources as a main problem when implementing process management.

Results of the study show significant correlations between some of the measured indicators. Generally the large companies had established some kind of ownership to their core processes. This was not the case in many of the small firms. Also the system of process improvement was generally more developed and had a higher level of co-ordination in the large companies than in the small ones. Examples of process improvement in the large companies include core process improvement teams commissioned by the process owners and meeting at regular intervals, assessing the performance of each process.

At the companies that had a system for regular assessment of process performance there was also a tendency of higher commitment among the personnel. At the companies where the use of process management had been initiated within the organisation the response from the employees had been very positive. When the initiative had come from external customers or if process management had been implemented due to the demands of the new ISO 9000 standard the response from the employees had been a bit less positive. If the initiative to start using process management had come from within the organisation the chances were higher that a clear ownership of the processes had been established. The tendency to follow up and use results from measurements in the processes were also higher if the initiative to start using process management had come from within the organisation.
Case studies

To evaluate the effects of implementing process management in small enterprises case studies have been performed at two of the companies participating in the telephone survey. The cases have been selected to represent different types of industries and also different types of implementation strategies.

The first organisation has 35 employees and is a subcontractor in the boat industry. Eight years ago a new CEO took over the leadership of the company. For a few years the company had been experiencing a difficult situation with heavy expenses and a decrease in sales. The primary focus was on immediate improvement activities and short term problem solving. After about two years the new CEO began transforming the company from a traditional functional organisation with a hierarchical chain of command into a horizontal process management organisation. A flatter team-oriented structure replaced the former top-down hierarchy. The levels of authority and number of functional lines were minimised. This required a radical shift in thinking among the personnel. Those who earlier had been used to work according to priorities and quotas set by the managers now had to think much more by themselves. Work design, product inspection, cost reduction and process improvement became the responsibilities of job teams. Two functional managers provided specialised skills in the areas of finance and human resources. The performance of the company increased considerably. Under the strong leadership of the new CEO the company had reached a process oriented and customer focused organisation.

The second organisation is working in the service industry and has about 150 employees. Two years ago business was very good. To improve the internal efficiency and customer focus the senior management team decided to change the organisation from functional orientation to process management. A person with long experience of implementing process management in other companies was employed as quality manager. In two months he had reworked the organisational chart into a process hierarchy with core processes, subprocesses, operational, supporting and management processes. But the commitment shown by the top management was decreasing. The general business climate was deteriorating and the company was losing sales. For about half a year the implementation was halted due to vacillation by the senior management. After six months it was decided that the change towards process management should continue. The insecurity among the personnel resulted in considerable damage to the mandate for change. Through some promising results achieved by the parts of the organisation that was using process management the opinion for organisational change improved. Today the process map has found widespread use in the company and one of the core processes is horizontally managed.

Conclusion

At a majority of the studied companies the general response from the personnel when implementing process management was positive or very positive. Main problem areas included bureaucratic documentation procedures and difficulties when trying to involve older personnel and middle managers. At the companies where the use of process management had been initiated from within the organisation the likelihood of a successful implementation was
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significantly improved.

In the mail survey about 28 percent of the studied companies stated that they were using process management within their organisation. Many of those companies were later categorised as traditional functional organisations. None of the participating companies were entirely horizontally managed. Instead they used different kinds of hybrid organisations.

In general the companies with many employees had assigned owners to their major processes. This was not the case in most of the small firms. Also the system of process improvement was generally more developed and had a higher level of co-ordination in the large companies than in the small ones.

References


