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Experiences of working with in-company quality awards

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Abstract

One way to stimulate Total Quality Management (TQM) efforts in an organisation is to work with a quality award. This paper presents a case study, including both interviews and document studies, of a unit within the Swedish National Road Administration that has worked with an in-company quality award. The purpose of the case study was to study how a unit experiences and is affected by the work connected with an in-company quality award. Some positive experiences and effects were recognised, such as a perceived improved customer orientation, a comprehensive view, a degree of participation by everyone, systematic improvement work and an increase in the average score from the examiners. The perceived main disadvantage is the amount of work that the in-company quality award requires, especially in the phase of description of activities.

Background

Total Quality Management (TQM) has become a recognised and frequently discussed term in management literature. Some argue that TQM is a management approach, see, for example, Dale (1999), while others state that it is a management system, see, for example, Shiba et al. (1993) and Hellsten & Klefsjö (2000). The latter authors define TQM as a management system in continuous change, which consists of values, methodologies and tools, the aim of which is to increase external and internal customer satisfaction with a reduced amount of resources.

One way to work with TQM and its values, methodologies and tools, and thus try to increase customer satisfaction, is to apply for a quality award. Some examples of the criteria of quality awards that have been used by many organisations and are widespread are the criteria of the Malcolm Baldrige National Quality Award (MBNQA) and the European Quality Award (EQA). In many countries, however, the development of national quality awards is still new or non-existent, see Chuan & Soon (2000). For a thorough list of national and international quality awards and a comparison between different awards, see, for example, Vokurka et al. (2000) and Johnson (2002).

The Swedish Institute for Quality, SIQ, which was established in 1990, has had a large impact on quality development in Sweden. In 1992 the Swedish Quality

Award was launched by the SIQ. The Swedish Quality Award has influenced the establishment of several regional, branch-wise and in-company quality awards in Sweden. Most of these quality awards in Sweden are also based on the whole or parts of the SIQ Model for Performance Excellence. One main difference between the quality awards is the group of units and companies that the award is aimed at, or in other words, who are allowed to participate in the award process. For example, only units within an organisation can apply for an in-company quality award, while a national quality award is open for most of the organisations/units of the country. Today, there are mainly two companies in Sweden, the Swedish Post Office and the Swedish National Road Administration, which are working with an in-company quality award. There are also companies in Sweden that have ceased working with in-company quality awards. These include Swedish Telecom, and two electricity suppliers, Vattenfall and Sydkraft.

Due to the fact that in-company quality awards have not aroused great research interest, according to literature studies, a project is now in progress in order to study the effects of in-company quality awards. Earlier results of this project based on a questionnaire study, see Eriksson et al. (2002), showed that some units that had applied for an in-company quality award experienced that the general development of some studied key-indicators were improved greatly, while none of the units that had not applied stated the same positive development. To understand better how a unit experiences and is affected by the work connected with an in-company quality award, as well as to determine whether the results from Eriksson et al. (2002) could be verified, an in-depth analysis needed to be performed. Hence, the purpose of this study is to create an understanding of how a unit experiences and is affected by the work connected with an in-company quality award.

Theory

In this section, the main methodology and tool that are used in the in-company quality awards are presented. Hellsten & Klefsjö (2000) argue that methodologies are "ways to work within the organisation to reach the values" and that a methodology "consists of a number of activities performed in a certain way". Hellsten & Klefsjö (2000) define tools as "rather concrete and well-defined tools, which sometimes have a statistical basis, to support decision-making or facilitate analysis of data".

Self-assessment

Self-assessment can be regarded as a methodology, see Hellsten & Klefsjö (2000). Self-assessment has many similarities to the phases that an organisation goes through when applying for a quality award. Hence, self-assessment is used in this paper to describe the work connected with in-company quality awards. According to EFQM (1996), self-assessment is "a comprehensive, systematic and regular review of an organisation's activities and results referenced against a model of business excellence".

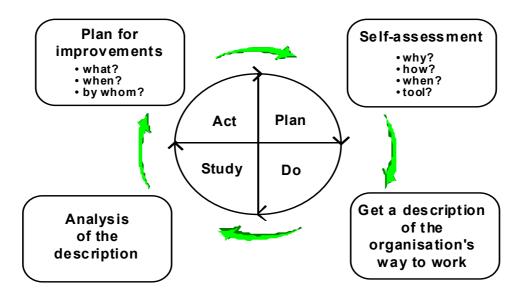


Figure 1 The self-assessment procedure consists of four phases, which together correspond to the four phases of the improvement cycle 'plan-do-study-act'. Source: Hellsten &Klefsjö (2000)

Svensson & Klefsjö (2000) have suggested different phases of self-assessment, see Figure 1. They argue that the self-assessment procedure has four phases, similar to the four phases of the improvement cycle. The first phase, "plan", includes asking questions like: "Why should we perform a self-assessment?" "When should the work be carried out?" "Who should be involved?" "Which excellence model should be used as a basis for the description?" This phase is developed further in Conti (2002), who claims that the organisation has to ask three questions ("Why?", "How?" and "What?") before initiating self-assessment. The second phase, "do", consists of obtaining a description of the organisation's way of working. The third phase, "study", consists of the analysis of the description, often resulting in some form of feedback report based on the description. The fourth phase, "act", consists of planning for improvements.

The effects and experiences of working with self-assessment have been studied earlier. For example, van der Wiele et al. (1996) identified, on the basis of data from 117 organisations that had experiences of self-assessment, the five most important reasons for organisations taking the initiative to start the process of self-assessment. These are:

- 1. to find opportunities for improvement.
- 2. to create a focus on the TQM model portrayed by the award criteria.
- 3. to direct the improvement process.
- 4. to provide new motivation for the improvement process.
- 5. to manage the business.

Moreover, Brown & van der Wiele (1996) show, on the basis of a national postal survey of self-assessment practices in Australia, that the reasons for

using self-assessment are mainly to find opportunities for improvement and to direct the improvement process, while the goals for introducing self-assessment are to improve business performance, to drive continuous improvement and to increase quality awareness in all aspects of the business. According to Brown & van der Wiele (1996), the organisations are positive in general to the results of self-assessment. Moreover, Finn & Porter (1994) state, according to a survey study, that companies are increasingly using self-assessment and that benefits from this approach are quickly realised.

Samuelsson & Nilsson (2002) state, after studying nine large organisations, that there is no universal methodology for self-assessment. On the contrary, their findings indicate that several approaches to self-assessment are successful, as long as they fit the organisation, are used continuously, and foster participation. Moreover, van der Wiele et al. (1996) state that organisations use self-assessment both on an internal basis, meaning that no external people are involved in the assessment, and on an external basis.

SIQ Model for Performance Excellence

Many different tools have been developed in order to support self-assessment. Swedish organisations have to a relatively large extent been using the booklet with the SIO Model for Performance Excellence, which is based on of 13 core values and consists of seven criteria, which are divided further into 27 subcriteria. The general framework and the criteria of the SIQ model are displayed in SIQ (2002) and in Figure 2. The booklet with the criteria can be regarded as a tool, see Hellsten & Klefsjö (2000). The criteria are based on core values which are the foundation of TQM. The core values of the SIQ Model for Performance Excellence are: Customer Orientation, Committed Leadership, Participation by Everyone, Competence Development, Long-range Perspective, Responsibility, Process Orientation, Prevention, Continuous Improvement, Learning from Others, Faster Response, Management by Facts and Interaction.

The SIQ Model for Performance Excellence, which was inspired by the MBNQA model, has many similarities to the latter. However, there are also differences between the two award models. For example, the SIQ Model for Performance Excellence puts more emphasis on the evaluation of and improvement in all the criteria addressed and on the practice of TQM principles in all organisational activities. There is also relatively more emphasis on the organisation's impact on society and on the organisation's commitment to the customers compared with most other national quality award models, see Chuan & Soon (2000).

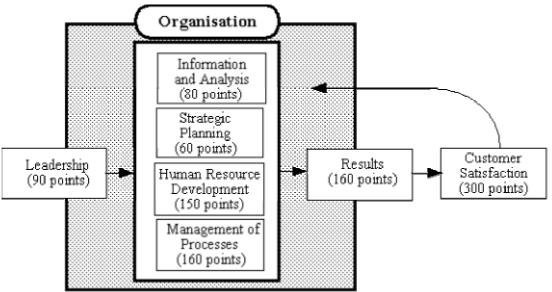


Figure 2 The figure shows the criteria with their respective points, and the framework of the SIQ Model for Performance Excellence. The model is the basis of the Swedish Quality Award; see SIQ (2000).

Methodology Case Selection

In order to perform an in-depth study of how a unit experiences and is affected by the work connected with in-company quality awards, a case study was chosen as the most appropriate strategy to collect data, see Yin (1994), who discusses relevant situations for different research strategies. Further, units that are and have been working with an in-company quality award for some time were prioritised in the case selection due to the fact that such units have a greater experience of the in-company quality award. A single case study, instead of a multiple case study, was chosen due to a restriction of resources and because the case study will also serve as a prelude to further studies on the subject, see Yin (1994). Finally, a unit within the Swedish National Road Administration that has been working with an in-company quality award since 1998, and has written three descriptions was chosen as an appropriate case study.

Selection of Units of Analysis

Before initiating a case study, one also has to decide how many units of analysis one wishes to investigate. In a holistic design one unit is examined, while in an embedded design more than one unit of analysis are examined. The sensitivity of the study increases as more units within the case are used, see Yin (1994). Hence, an embedded single-case design was chosen. To understand the experiences better and to obtain a broader picture of the work connected with the in-company quality award, and thus increase the sensitivity of the study, employees who had different levels of involvement in the self-assessment process and different levels of responsibility at the unit were interviewed and analysed on the basis of which perspective they possessed. This analysis was performed because employees with different perspectives, or in other words

with different levels of involvement and responsibility, probably look upon the work connected with the in-company quality award differently. In total, five semi-structured interviews were held. Four of the employees who were interviewed were taking an active part in working with the in-company quality award, while one did not participate in the work. Two of the employees who were interviewed had during different periods the responsibility of managing the work at the unit connected with the in-company quality award. The other two had mainly taken an active part in the description of activities ("Do" in Figure 1) and in the plan for improvements ("Act" in Figure 1). Further, one of the respondents was the head of the unit, while another one was the head of a division within the unit. The answers from the employees were analysed and compared on the basis of which perspective the employees possessed; e.g. their involvement in the self-assessment process and their level of responsibility at the unit. For example, the head of the unit was considered to have a high degree of responsibility at the unit, but only a medium involvement in the selfassessment process. The employee who did not participate in the selfassessment process was considered to have a low degree of involvement and a low degree of responsibility at the unit.

Selection of Inquiries

The results of Eriksson et al. (2002) served as an input for deciding which questions were going to be asked. As mentioned earlier, one intention of this study was to determine whether some of the results of Eriksson et al. (2002) could be verified. Therefore, some of the questions were similar to those asked in that study, while others were added to understand better the experiences of the in-company quality award. The studied experiences of the in-company quality award can be divided into three different consecutive steps or areas of questions, see Figure 3. First, what are the purpose and goal of working with the in-company quality award? Second, what does the self-assessment process of an in-company quality award look like? Third, and the main focus of this paper, what is the perceived outcome of the work connected with the incompany quality award? The perceived outcome of the in-company quality award was divided further into four different areas of questions, see Figure 3, and compared with other identified effects of the in-company quality award, mainly derived from the document studies of the work connected with the incompany quality award. For a detailed description of the questions of this case study, see Eriksson (2002).

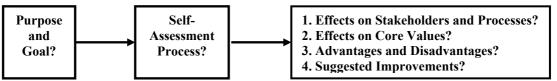


Figure 3 The figure shows an overview of the areas of questions that were asked about the experiences of the in-company quality award.

Results and Discussions of the Case Study

The Swedish National Road Administration is the central administrative agency charged with the overall responsibility for the entire road transportation system in Sweden. The unit studied within the Swedish National Road Administration, the Northern Region, is assigned the administration of the road transportation system in Northern Sweden, and has about 160 employees. In the following section, the results of the case study are presented and compared with earlier published results.

Purpose and Goal of the In-Company Quality Award

It has been mandatory for the units within the Swedish National Road Administration to work with the SIQ Model for Performance Excellence since 1998, and it has been possible to apply for the in-company quality award three times. The purpose of the work is to find areas where future improvements can be made in the unit's activities. This purpose of self-assessment is also stated by many other organisations, see for example Brown & van der Wiele (1996) and van der Wiele et al. (1996). Some respondents claim further that they have succeeded in many of the improvement projects which were identified and prioritised on the basis of the feedback report, and thus fulfilled the goals of working with the in-company quality award.

Self-assessment Process of the In-Company Quality Award

All the respondents agreed that the diagram of the award procedure presented in Figure 1 provides a true picture of the work connected with the in-company quality award, and that the description of activities was the phase in the award procedure that needed most resources, see Table I.

Table I The table shows the phases which, in the employees' view, needed most work, the next greatest amount of work, the next smallest amount of work, and least work in connection with the in-company quality award. The interviewed employees' degree of involvement in the self-assessment and responsibility at the unit are shown in the first two rows.

Degree of involvement in the self-assessment	High	High	Medium	Medium
Degree of responsibility at the unit	Low	Medium	Low	High
Most work	Description	Description	Description	Description
Next greatest amount of work	Analysis	Improvement Plan	Planning	Improvement Plan
Next smallest amount of work	Improvement Plan	Analysis	Improvement Plan	Analysis
Least work	Planning	Planning	Analysis	Planning

Different groups of employees were responsible for different criteria during the description of the activities. All the divisions within the unit were required to contribute at least one employee to this work, and these employees formed an internal quality network. During meetings, specially arranged for description of

the activities, the different criteria were linked together to give a better picture of the activities and results of the unit. One then ensured that the whole document containing the description of activities received the support of the rest of the unit, before applying for the in-company quality award.

The respondent who was the head of the unit (high responsibility) and the respondent who was the head of a division of the unit (medium responsibility) also considered that the plan for improvements, the analysis of the description and the planning were the phases that required the next greatest amount of work, the next smallest amount of work, and least work, respectively, after the description of activities, see Table I. One of the respondents did not have an active role in the work connected with the in-company quality award and hence did not answer this particular question. The results in Table I were strengthened further by the document studies. The unit performed an estimation of how many hours the unit worked with each phase per year. The result of this estimation is displayed in Table II.

Table II The table shows the estimated number of hours during which the unit worked with the in-company quality award in each year and phase. The percentages within parentheses indicate what proportion of the total work connected with the in-company quality award each phase constituted.

Phase/Year	Planning	Description	Analysis	Improve- ment Plan	Total for the year
1998	50 (4%)	850 (72%)	120 (10%)	160 (14%)	1180
1999	16 (1%)	720 (48%)	300 (20%)	460 (31%)	1496
2000	16 (1%)	740 (62%)	265 (22%)	180 (15%)	1201
Total for the phase	82 (2.1%)	2310 (59.6%)	685 (17.7%)	800 (20.6%)	3877

The results displayed in Table I and Table II verify one of the main findings of Eriksson et al. (2002), which showed that the description of activities and planning for improvements require most work of units that apply for incompany quality awards, with the difference that this study shows that the description of activities is the phase that clearly requires most work. A large amount of resources was spent on planning for improvements, as the unit had to agree on which improvement areas were to be prioritised and transformed into improvement projects. The improvement projects were thereafter communicated to the director-general of the Swedish National Road Administration and included in the plan of action for the unit. Both Conti (2002) and Svensson & Klefsjö (2000) argue that the first phase of the self-assessment procedure is important for success. However, the unit claimed that on average only about 2% of the total work connected with the in-company quality award was spent on this phase.

Moreover, all the sources for data collection – the estimation of the work connected with the in-company quality award on a yearly basis, displayed in Table II, the interviews, displayed in Table I, and the questionnaire study

presented in Eriksson et al. (2002) – indicate that most work is required the second time units apply for in-company quality awards, while two of these sources indicate that the third time required least work. Simpson et al. (1998) state that it is widely accepted that subsequent self-assessment is more successful than the first exercise. This could be due to the fact that more resources may have been spent on the self-assessment the second time. One source, displayed in Table II, shows that the first and the third time the unit worked with the in-company quality award, about a similar amount of work was demanded from the employees.

Effects of the In-Company Quality Award on the Stakeholders and Processes

Examiners have, on the basis of the SIQ Model for Performance Excellence, evaluated the unit on the three different occasions when the unit worked with the in-company quality award. The examiners have reached a consensus about the final score for each criterion. In Figure 4, the scores are presented which the examiners awarded the unit for the different criteria in the SIQ Model for Performance Excellence and for the different years. The examiners vary from year to year, and hence different examiners can be more or less generous in their scoring. Moreover, the employees who describe the activities probably improve the process, including their writing skills, the second and third time they are working with the quality award. Hence, it is not clear whether an increase in the average scores from the examiners is due to improved bottom line results. Due to these facts, one can discuss the possibility of a lack of reliability and validity concerning the examiners' scoring. On the other hand experiences show that examiners have a tendency to be tougher in their judgement over time, see Heaphy & Gruska (1995).

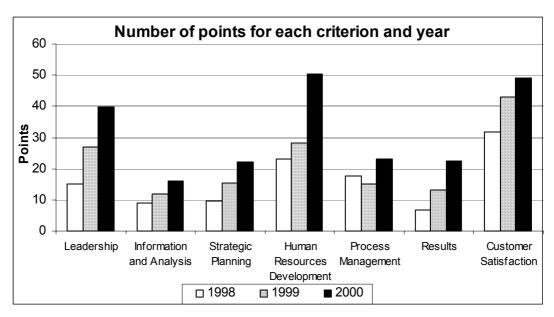


Figure 4 The figure shows how many points the unit received for each criterion and each year.

However, Figure 4 shows that the unit has improved the results for each criterion, except between the first and the second year for the criterion of process management. Myers & Heller (1995), who discuss AT&T's incompany quality award, called the Chairman's Quality Award (CQA), conclude also that units which had previously applied for and worked with the CQA show great improvement in the average scores from examiners.

One of the respondents believed that organisations need to map and work with processes for some time in order to be successful in the work connected with a quality award. This could be one explanation for the negative trend concerning process management which is displayed in Figure 4. However, some respondents claim that they have reached an increased process orientation, that the work is more systematic now, and that this could be an effect of the work connected with the in-company quality award.

The results for customer satisfaction and human resource development are displayed in two different sub-criteria. The other results are presented in one result criterion. The development of the scores that the units received from the examiners for these result-criteria for the different years is displayed in Table III.

Table III The table shows how the percentages given by the examiners for the different result criteria have developed since 1998.

Year	1998	1999	2000
Results for Customer Satisfaction	5%	10%	10%
Results for Human Resource Development	5%	10%	10%
Other Results	4%	8%	16%

Table III shows that the other results (results for main and support processes, co-operation with suppliers, and involvement in society and environmental considerations) improved in both years, while the percentages given by the examiners for the criteria of customer satisfaction and human resources development were only improved between the first and the second year of the self-assessment. Moreover, it was in the second year that the unit performed most of the work, and this improvement in the score could therefore be a result of that extensive work. The respondents claim that the unit has become more customer-oriented, even if that is not supported in Table III, and a better dialogue with the customers has been reached. However, some of the respondents state that it is difficult to see the positive effects for the customer yet. The customers of the unit are mainly the citizens that use the road transportation system. In the long run, however, an improved customer orientation should also have a positive impact on the owner, in this case the Swedish state, according to some of the respondents.

Effects of the In-Company Quality Award on the Core Values

One of the findings in Eriksson et al. (2002) is that the work connected with the in-company quality award has positive perceived effects on the acceptance of

the core values within the organisations. Hence, the core values were analysed further in this study, see Table IV.

Table IV

The table shows the three core values that the employees perceived to permeate the unit the most. One star indicates that the respondents perceived that the core value that permeated the unit partly depended on the work connected with the in-company quality award. Two stars indicate that the respondents perceived that the core value that permeated the unit depended on the work connected with the incompany quality award. The interviewed employees' degree of involvement in the self-assessment and responsibility at the unit are shown in the first and second row, respectively.

snown in the first and second row, respectively.

Involvement	High	High	Medium	Medium	Low
Responsibility	Low	Medium	Low	High	Low
Core Value	Competence Development	Competence Development*	Competence Development	Participation by Everyone*	Competence Development*
Core Value	Management by Facts	Interaction*	Management by Facts	Management by Fact	Participation by Everyone*
Core Value	Customer Orientation*	Customer Orientation*	Committed Leadership	Customer Orientation**	Public Responsibility**

The involvement in the self-assessment or the responsibility at the unit does not influence, at least according to Table IV, which core values are perceived to permeate the unit. On the whole, competence development, management by facts and customer orientation are the core values that are perceived by the respondents to permeate the unit the most. The core value of customer orientation seems to be the core value that is perceived to be affected most by the work connected with the in-company quality award. The feedback report from the examiners from the three different years also strengthens this picture, as the examiners are more and more positive in their reports to the customer orientation of the unit. Studies have shown that customer satisfaction, one of the main aims of TQM, also has a significant positive impact on market value as well as accounting returns, see for example Andersson & Fornell (1994).

Advantages and Disadvantages of the In-Company Quality Award

Table V presents the perceived advantages and disadvantages of the incompany quality award. The respondents who have a high degree of involvement in the in-company quality award perceive that one of the main advantages is an increased comprehensive view of the business, while the respondents who have a medium involvement in the in-company quality award perceive that the work connected with the in-company quality award is a good learning experience for the employees involved. The work connected with the in-company quality award is also perceived to initiate improvement projects, which can result in an increased customer orientation, as well as an increased process orientation. These positive effects verify the findings of Eriksson et al. (2002).

Table V The table shows the perceived advantages and disadvantages of the work connected with the in-company quality award. The interviewed employees' degree of involvement in the self-assessment and responsibility at the unit are shown in the first and second row, respectively.

Involvement	High	High	Medium	Medium
Responsibility	Low	Medium	Low	High
Advantages	An increased comprehensive view of the unit	An increased comprehensive view of the unit. The initiation of improvement projects, which results in an increased customer orientation	An increased customer- and process orientation. A good learning experience	A good learning experience. The start of systematic improvement work
Disadvantages	Resource- demanding	Resource- demanding	Resource- demanding. Troublesome and formalistic demands from the SIQ model	

The main criticism of the work connected with the in-company quality award is that it is resource-demanding, and hence requires a great deal of work from the employees who are involved in the self-assessment. The lack of resources when performing self-assessment is also recognised in Svensson (2002). However, it is not possible to see positive effects of the work connected with the incompany quality award without spending resources on the work.

Suggestions for Improvements of the In-Company Quality Award

Both the respondents who were involved in the work connected with the incompany quality award and the respondent who did not take an active part in the work stated that the information about the work connected with the incompany quality award did not reach the whole unit. Hence, one should pay attention to the lack of communication between different parties within the unit if one wants to improve the in-company quality award. Moreover, as shown previously in some areas of questions, the respondents experienced the work connected with the in-company quality award differently. This could be due to the fact that no common set of beliefs concerning the work connected with the in-company quality award has been communicated. By putting more emphasis on and devoting more work to the phase of planning, it is possible that the communication problems can be prevented.

In addition, the SIQ Model for Performance Excellence received some criticism from several respondents. The SIQ Model for Performance Excellence is perceived to be too bureaucratic and extensive, and other methods for identifying improvement areas could be applied by using other methodologies and tools requiring a smaller amount of resources, according to two of the respondents. One tool that was mentioned in this context was the Springboard, see Hellsten (1997) and Hellsten (1999).

Discussion

All the answers from the respondents are presented in Eriksson (2002) in order to increase the reliability of the study. To increase the validity of the study, the quality coordinator of the unit was contacted before the interviews to comment on the questions that were going to be asked. Further, the self-assessment procedure and the core values were explained to the respondents in order to decrease possible misinterpretations. Moreover, the respondents had the opportunity to comment on each area of questions in order not to neglect any important matter. An internal validation was executed as well, where colleagues of the author commented on the structure and the questions that were going to be asked in the case study. In addition, as an incentive to increase the validation, triangulation was performed to some extent for some areas of questions, as many different sources for data collection were used: the interviews, the document studies, and the questionnaire study described in Eriksson et al. (2002).

In future research, case studies at both the companies that still have an incompany quality award and at companies that have ended their in-company quality award need to be performed, in order to obtain a more complete picture of in-company quality awards and to validate the results of this study. In future case studies, some questions will be changed slightly. However, no major changes of the research design were identified as necessary.

The respondents of this case study, and at other units that work with an incompany quality award have in general a positive attitude towards the work connected with the in-company quality award, see Eriksson et al. (2002). Other organisations have also expressed a positive attitude towards self-assessment, see, for example, Brown & van der Wiele (1996). However, the results of this case study indicate that a large amount of resources is spent on the description of activities, and some respondents believe that, due to this fact, the unit does not have the time to actually perform and execute the identified improvements. As a result of this, the company and the unit will probably perform self-assessment every other year in the future in order to manage the actual improvement work that follows the self-assessment.

One advantage of an in-company quality award in comparison with other types of awards can be that "best practice" can more easily be transferred to other units within the company, due to the fact that access to other units is easier. One disadvantage of a competition, like an in-company quality award competition, can be that too much focus is on the scoring instead of finding and executing improvements. Conti (2001) identifies this problem, and states that if the goal of self-assessment is performance improvements, the best choice is to ignore scores and weights. Further, Conti (2001) argues that internal awards linked to self-assessment can indeed be a stimulus; they can drive interest and create the motivation to start. However, although awards certainly help to produce improvement at the beginning, the rate of improvement then tends to

slow down, according to Conti (2001). The veracity of this statement will hopefully be investigated by future research.

Conclusion

The main conclusion of this paper is that, even if the work connected with the in-company quality award requires a large amount of work, especially in the phase of description of activities, the customer orientation is perceived to increase as a result of the work connected with the in-company quality award. Some other positive effects were also recognised, such as an improved comprehensive view of the employees, a higher degree of participation by everyone and the initiation of systematic improvement work. These perceived positive effects are also reflected in an improvement in the average score from the examiners. These results verify and strengthen the findings of Eriksson et al. (2002). Even if the work involved in self-assessment, in this case in connection with an in-company quality award, is perceived to give positive results in alignment with other studies of self-assessment, the work connected with the in-company quality award can be improved. The main areas of criticism, and thereby possible improvement areas, concerning the work connected with the in-company quality award are a lack of communication and the bureaucratic and extensive SIQ Model for Performance Excellence.

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