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Organisational performance improvement through quality award process participation

by

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Keywords: Quality Award Process, Core Values, Organisational Performance, Self-assessment, TQM.

Abstract

The striving for business improvement and stronger customer orientation causes many organisations to participate in a quality award process. This study presents a case study of three organisations that have participated in the Swedish Quality Award process. The cases were selected in order to clarify how this award process could be used to improve organisational performance. The study focuses primarily on analyses of soft measures such as organisational core values. Several examples of approaches to how to benefit from a quality award process, and thereby to improve organisational performance, are provided. The studied organisations have been successful in their development and communication of visions, and also in their empowerment of employees. Specifically, the core values of customer orientation, process orientation, continuous improvement, committed leadership and participation by everyone have been strengthened. Findings from the case studies indicate that if the goal is to get lasting results, it is not sufficient to participate in a quality award process only once. Instead one should participate in the process several times, with enough time in between the applications in order to complete as many as possible of the improvement projects resulting from the evaluations.

Introduction

In the 1950s Japan began honouring quality practices through the establishment of the Deming Prize. After the successful development in Japan, several other countries also established programs to recognise quality practices taking place in organisations, see Vokurka et al. (2000). There are similarities between most national quality awards, regarding, for example, criteria and award processes. Some examples of widespread criteria are the ones used in the Malcolm Baldrige National Quality Award (MBNQA), see NIST (2003), and the European Quality Award (EQA), see EFQM (2003). In many countries, however, the development and use of national quality awards is still new or non-existent, see Chuan & Soon (2000). Vokurka et al. (2000), Johnson (2002) and Tan et al. (2003) present thorough lists of quality awards and comparisons between different awards.

Although much important work has been carried out on organisational experiences of quality award processes, a number of questions remain. Results of earlier studies indicate that if the aim is business improvement, participation in a quality award process is not always the most appropriate methodology, see for example Conti (2001). After a study of 29 organisations that have participated in the Swedish Quality Award process, Eriksson (2003a) concludes that many organisations do not have enough resources to actually carry out the improvement work that is supposed to be a result of the award process. However, Eriksson (2003a) also demonstrates that some successful organisations, when considering the improvement work, show major benefits from the process. For example, a large majority of the organisations

studied consider the process orientation, customer orientation, and improvement work to have been improved as a result of the participation in the quality award process.

Sila & Ebrahimpour (2002) state that there has been an increase in the use of self-assessment models by organisations, but they also claim that there is a lack of published research on the experiences of organisations that have participated in quality award processes. Little is known about how organisations work with and benefit from such processes, and what their critical success factors are. As far as we know there has not yet been any systematic examination of how organisations actually should make use of their participation in a quality award process, and what there is to gain from such a process. In particular, it has not been fully illuminated what activities are performed in order to strengthen the organisational performance. The purpose of this study is to describe how organisations have utilized their quality award process participation in order to improve performance.

Theory

Total Quality Management (TQM)

The criteria of most national quality awards conform with the major constituents of Total Quality Management (TQM), see Hendricks & Singhal (1996). Receiving a quality award is also a common proxy for a successful implementation of TQM, see Hendricks & Singhal (1997), Ghobadian & Gallear (2001), and Eriksson & Hansson (2003). With reference to Hellsten & Klefsjö (2000) we define TQM as “a continuously evolved management system consisting of values, methodologies and tools, the aim of which is to increase external and internal customer satisfaction with a reduced amount of resources”, see Figure 1. Hellsten & Klefsjö (2000) argue that the methodologies and tools support the values and that the three units together form the whole. Hence, a TQM implementation should start with the identification of important values. Secondly, methodologies that support these core values should be identified and used continuously and consistently. Finally tools should be selected and used in an efficient way in order to support the methodologies chosen.

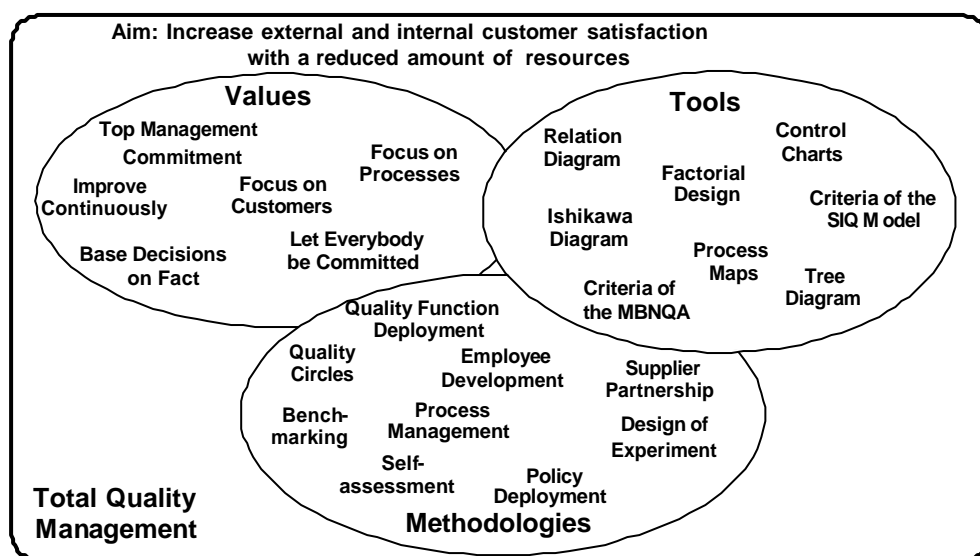


Figure 1 *Total Quality Management (TQM) seen as a continuously evolving management system consisting of values, methodologies and tools. The values, methodologies and tools are just examples and not a complete list. Source: Hellsten & Klefsjö (2000).*

Organisational Performance

The term performance can be used to describe “a measure of attainment achieved by an individual, a team, an organisation or a process”, see EFQM (1999). Samson & Terziovski (1999) show that there is a noteworthy cross-sectional relationship between TQM practice and organisational performance. TQM practice intensity explains a significant proportion of variance in organisational performance. Samson & Terziovski (1999) state that the categories of leadership, management of people and customer focus are the strongest significant predictors of operational performance. Moreover, the major findings of Allen & Kilmann (2001) show that higher levels of company performance are significantly correlated with greater use of TQM practices. McAdam & Bannister (2001) discuss the need for performance measurement within the TQM framework, and the fact that both hard and soft indicators, and both management and employee perceptive measures should be used to measure the outcome of TQM.

Self-assessment

Participating in a quality award process has many similarities with the methodology of self-assessment. 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”. A main difference between a quality award process and self-assessment is that the ownership of the quality award process and self-assessment differs. The owner of a quality award process is not the evaluated organisation, while this is the case for self-assessment. Furthermore, self-assessment does not necessarily involve external examiners.

Svensson & Klefsjö (2000) have discussed different phases of self-assessment, which are used in this paper to describe a quality award process. They argue that the self-assessment procedure consist of four phases, similar to the four phases of the improvement cycle. The first phase, “plan”, includes answering questions like: “Why should we perform a self-assessment?” “When should the work be carried out?” “Who should be involved?” “Which criteria should be used as a basis for the description?” This phase has been further examined by 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 an organisational description of today’s way of working. The third phase, “study”, consists of description analyses, often resulting in some form of feedback report. The final phase, “act”, consists of planning for improvements. The improvements planned are in return input to a number of improvement projects that should follow the self-assessment cycle, see Svensson (2002) and Figure 2.

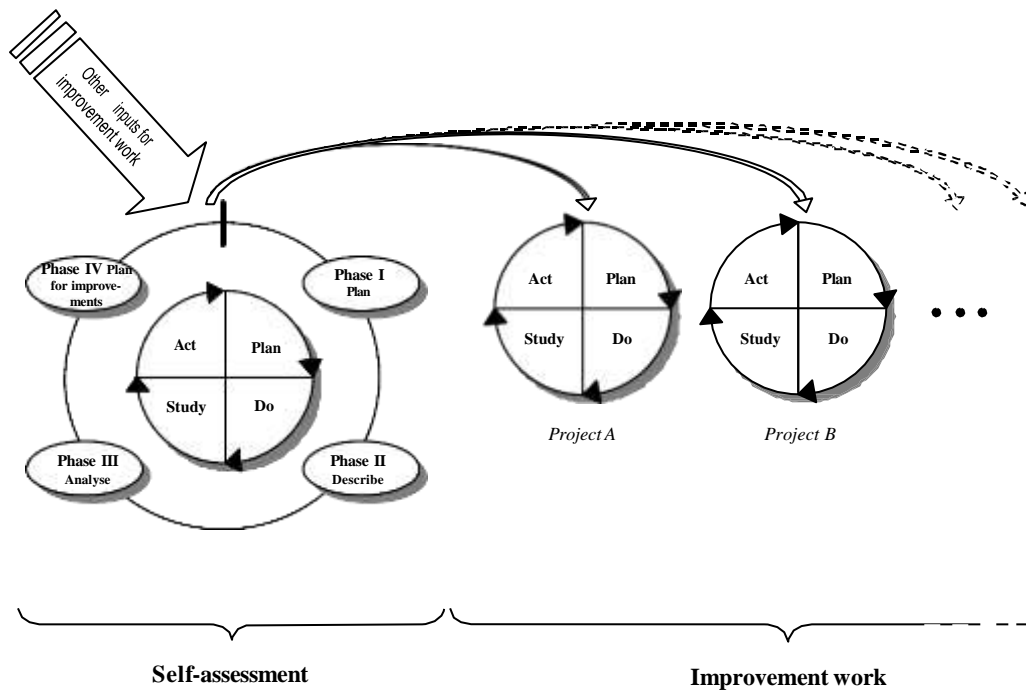


Figure 2 Self-assessment and its subsequent improvement work seen as two independent and consecutive processes, each consisting of four phases similar to those in the improvement cycle. Source: Svensson (2002).

The Swedish Quality Award

Since 1992 the Swedish Quality Award has been organised by the Swedish Institute for Quality (SIQ). The SIQ has developed a model, called the SIQ Model for Performance Excellence, which is based on 13 core values and 7 criteria, which are divided into 27 sub-criteria. An overview of the SIQ Model is presented in Figure 3. The core values of the SIQ Model for Performance Excellence are, see SIQ (2002):

Customer Orientation	Prevention
Committed Leadership	Continuous Improvement
Participation by Everyone	Learning from Others
Competence Development	Faster Response
Long-range Perspective	Management by Facts
Public Responsibility	Interaction.
Process Orientation	

The criteria of the SIQ Model have been inspired by, and are similar to, the criteria of the Malcolm Baldrige National Quality Award Model, see NIST (2003). This is, for example, illustrated by the fact that both criteria strongly emphasize organisational results, see Chuan & Soon (2000). There are also differences between the criteria, for example the SIQ Model's stronger emphasis on evaluation, improvement, and societal impact, see Chuan & Soon (2000). Since the year 2000 it has been possible to use either the SIQ Model, the EFQM Model or the MBNQA Model in an application for the Swedish Quality Award. For a thorough discussion concerning dissimilarities between the different criteria, see Puay et al. (1998).

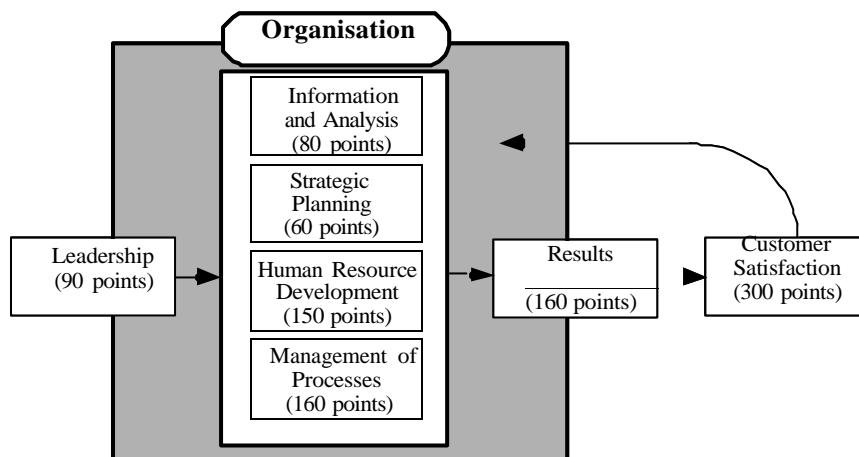


Figure 3 The SIQ Model for Performance Excellence. Source: SIQ (2002).

Methodology

The intention of this study is to describe how organisations have utilized their quality award process participation in order to improve performance. A multiple case study, see Yin (1994), was chosen as the most appropriate research strategy. Input regarding case selections came from Eriksson (2003a), who identified 46 organisations that have applied for the Swedish Quality Award between 1998 and 2002. For various reasons, 29 of these organisations were studied, see Eriksson (2003a). The organisations in the present study were selected from these 29 applicants. The following criteria were used during the case selection:

1. The organisations should uphold systematic improvement work
2. The organisations should have used the SIQ Model for Performance Excellence in the application to the Swedish Quality Award
3. The organisations should not have gone through any major organisational changes subsequent to their latest award process participation.

One of the aims of this study is to transfer “best practice” regarding the improvement work that should follow participation in a quality award process. Therefore, the examined organisations must be successful and systematic in their work with improvements. The second criterion was chosen due to the fact that the study aims at analysing core values. Since the core values differ in the SIQ Model, the EFQM Model and the MBNQA Model, it would have been hard to make a comparison between organisations using different models. Most organisations participating in the Swedish Quality Award process have used the SIQ model, see Eriksson (2003a). Therefore, the criterion that the included organisations should have used the SIQ Model was established. The third criterion was chosen because effects on organisational performance due to participation in a quality award process would be difficult to isolate, if major organisational changes had also been performed.

We found that three organisations conformed to the criteria above, namely: Sydkraft Vattenkraft, Agria Djurförsäkring, and Kronans Droghandel. Data was collected through the use of interviews, document studies and direct observations during site visits. The main reason for using many sources of data is to increase the validity of the study.

Interviews

To obtain a broad picture of the quality award process, and thus increase the sensitivity of the study, two employees, with different levels of responsibility, were interviewed in each

organisation. One of the informants that were selected in each organisation had an overall responsible for the organisation's participation in the quality award process. The other informant that was selected in each organisation had not had any overall responsibility for the application, but had instead been operationally involved in the quality award process. The interviews focused on how the organisations had utilized the quality award process, the improvement work and the core values of the SIQ Model for Performance Excellence. The interviews were focused, see Yin (1994), and followed a certain set of questions and procedures. The actual interviews were performed during March 2003, and all the interviews were recorded. All questions and answers have been documented by Eriksson & Palmberg (2003).

To further strengthen the validity of the present study an internal test was executed, in which colleagues of the authors and a project group commented on the structure and the questions that were going to be asked during the phone interviews. The quality award process was explained to the informants before the interviews were started in order to reduce possible misunderstandings. Furthermore, after making a fair copy of the interviews the informants were allowed to comment on their answers in order to eliminate misinterpretation before documenting the answers.

Direct Observations and Document Studies

Direct observations were made during one day in each of the three examined organisations. The observations could be classified as fairly informal, see Yin (1994), and provided additional information about the selected cases.

Document studies were also made in the three examined organisations. Documents that were requested from each organisation included:

- The latest application to the Swedish Quality Award
- The latest examiner feedback report
- Annual reports of the organisation
- Documents that describe improvement work performed in the organisation.

Documents that described the improvement work that had followed the quality award process participation were difficult to collect. However, other documents that described activities in order to improve organisational performance were examined.

Cross-case Analysis

In order to describe performance improvements resulting from the quality award process participation, all identified improvements, values, methodologies and tools were categorized according to the core values of the SIQ Model. The informants were asked to describe what activities had been performed in order to strengthen their core values. In addition, direct observations, the organisations' applications to the Swedish Quality Award, and the examiners' feedback report were all used in the analysis to describe changes in each category. This data also served as input to the cross-case analysis. Methodologies and tools were considered in the cross-case analysis in order to illuminate how performance improvement had been achieved by the organisations.

Case descriptions

Sydkraft Vattenkraft

The Sydkraft Group consists of 60 operating subsidiaries with approximately 5,300 employees in total. Main business areas include production, distribution and sale of electricity, but also natural gas, water and sewage systems, materials recycling, energy trading and communications solutions. The products and services of the Sydkraft Group are designed to increase the competitiveness, comfort and security of the Group's customers in northern Europe. (Sydkraft, no date).

Sydkraft Vattenkraft, a subsidiary of the Sydkraft Group, is responsible for all hydro power processing in the Group with an average annual production of close to 11 TWh, and a total effect of about 2,300 MW. The electricity is produced by 120 outsourced power plants. The vision of Sydkraft Vattenkraft is "to be the leading hydro power supplier". In the year 2002 Sydkraft Vattenkraft had 107 employees and the average sales were about 200 Million EURO. The results after financial incomes and costs were about 30 Million EURO. (Sydkraft Vattenkraft, 2003).

In order to stimulate quality efforts in the Sydkraft Group an internal quality award was introduced towards the end of the 1990s. Only subsidiaries and units in the group had the opportunity to apply for the award. The internal quality award was based on the SIQ Model and the process had many similarities with the process of the Swedish Quality Award. In 2001 the internal quality award at the Sydkraft Group was ceased. Sydkraft Vattenkraft applied for the internal quality award twice, but did not receive any award. However, according to the informants the organisation recognised many benefits with the participation in the internal quality award process and therefore participated in the national quality award process in 2001. The organisation did not receive the award, but the examiners made a site visit at the organisation (site visits are made only to organisations that can be considered potential award recipients).

The organisation started by describing a desired future state of activities and results instead of describing what they were doing at the present time. A long-term plan for how to reach the desired state was documented, communicated and anchored within the organisation. The organisation emphasised the importance of planning before participating in a quality award process. Cross-functional teams were assigned to work with the planning and the following award application. About 90 per cent of the employees were, on different occasions and to different extents, involved. Through opponent procedures the employees that were not directly involved in describing the activities and results could nonetheless comment on the work, and hence get involved in the award process. The organisation prioritized among the many improvement projects, both small and large, that were identified during the award process. The improvement projects were intended to support some criteria and core values in the SIQ Model that were prioritized by the organisation.

At the time of the case study, Sydkraft did not work directly with any quality award process, even though the informants considered it possible that the organisation would apply for a quality award in the future. Instead, the organisation worked with a large development project called Destination 05. According to the informants at Sydkraft the main advantage of participating in a quality award process had been to "receive an external evaluation of the organisation". The main disadvantage had been that it required a lot of resources to participate. Furthermore, the organisation had to perform activities that, according to one of

the informants, were of little value. For example, the organisation was forced to prepare presentations and speeches if the judges decided to announce the organisation as a recipient. The informants claimed, however, that they have reached the described desired state for most of the criteria and core values that were prioritized.

Agria Djurförsäkring

Länsförsäkringar, with 24 independent regional insurance companies and the jointly owned Länsförsäkringar AB, is Sweden's only customer-owned locally established banking and insurance group. Länsförsäkringar "offers a broad range of policies and financial services for companies and private individuals". Länsförsäkringar is a leader in the Swedish market for non-life insurance. Its share of the market amounts to slightly more than 30 per cent. Its share of the market for life and pension assurance amounts to 11 per cent, with 2.6 per cent of the bank market. (Länsförsäkringar, 2003).

Agria Djurförsäkring, which is a subsidiary of Länsförsäkringar, offers insurances of animals and crops. Agria Djurförsäkring "offers animal owners and farmers flexible insurance solutions". The company supports "animal breeding and animal health in close cooperation with animal owner organisations and veterinarians". Agria Djurförsäkring has about 130 employees, who together serve about 335,000 customers. The premium incomes for 2002 were 70 Million Euro and the market share was about 64 per cent. (Agria, 2003).

Agria started to work with quality issues in 1994 with the main objective of improving the work procedures. Under the slogan "do everything online" Agria wanted to decrease administrative costs and increase sales. The organisation discovered the SIQ Model and decided it would be an appropriate tool for organisational improvement. The work started with mapping the processes, and involved almost all the employees on a voluntary basis.

After participating in the Swedish Quality Award for the first time in 1998, Agria received the award in 1999. Quality award recipients are not allowed to apply for the award again until three years after the announcement. Agria continued, however, to use the SIQ Model internally and applied a third time in 2002.

The organisation classified all improvement suggestions from the feedback report into two categories: a real improvement potential and an error in writing in the application. Since the first application to the Swedish Quality Award, the organisation has identified and executed numerous improvements. Besides improvements that are identified during participation in the quality award process, the organisation annually receives hundreds of improvement suggestions from its personnel. At the time of the study many of the employees were engaged in different kinds of improvement work. As an example, the total lead time for the settlement of claims had decreased from 20 days to 10 minutes as a result of the improvement suggestions.

A main advantage of participating in a quality award process had been, according to both the informants, the development of a more comprehensive view of the business and its processes among many of the employees. A broader view has been gained where, for example, the societal concerns are acknowledged. Valuable comments from external examiners were also highly appreciated. Furthermore, the participation in a quality award process has also led to a wider network and an ability to benchmark and compare with other organisations. The main disadvantages are that the work requires a lot of time and resources. The formalities of

participating in a quality award, like writing and editing an application and preparing presentations, are also perceived as a disadvantage.

Kronans Droghandel

The Kronans Droghandel Group comprises the parent company Kronans Droghandel AB (KD) and the wholly owned subsidiaries Kronans Droghandel ADB and Kronans Droghandel Tukku. KD is “a modern, comprehensive logistics company that supplies the Scandinavian health-care and medical markets with distributive and logistic services”. (Kronans Droghandel, no date).

Logistics involves flow of goods, information and capital. Over a number of years KD has made “a conscious and determined commitment to development of a customised and efficient IT-supported logistics system, which provides full insight into, and control over the entire distribution process”. The objective is “to integrate the entire chain from producer to consumer within one common system”. KD “will develop and supply cost-effective customised logistical solutions of the highest quality” on the Nordic market. This development will be conducted in co-operation with industry and public health care”. Total sales for the group were 1,600 Million Euro in 2001. (Kronans Droghandel, no date).

KD applied to the Swedish Quality Award in 1993 and 1994 with strong support from the current CEO. After a number of years KD applied a third and a fourth time in 2000 and 2002. In the latest application a group of KD applied, the business area Apotek, with about 90 per cent of the personnel in Sweden (238 employees). The business area of Apotek has a share of 49 per cent of the Swedish market for medical distributive and logistics services.

In 2002 a group of 10 employees was appointed as responsible for managing the application to the Swedish Quality Award. Persons were assigned to different criteria and were also given the overall responsibility for writing the application related to the respective criteria. Other employees were also involved in the process through continuously commenting on the work. The informants gave descriptions of great commitment within the group. The feedback report from 2000 was used continually in their work to improve processes and their results. They also produced an action list based on the phase of the description of activities.

During the completion of the latest application, the group believed that they had made progress in a number of areas, both economically and with positive trends for customer satisfaction, based on the quality award process participation in 2000. The examiners performed a site-visit to the organisation in 2000. The group was therefore very hopeful about the outcome of this application. However, the examiners had a different view. The score they gave the organisation was not high enough to lead to a site visit. The employees at KD were very disappointed with the fact that they did not even receive a site visit. They began questioning the examiners and the quality assurance of the award process. Because of the big disappointment the feedback report of the 2002 application had not been fully utilized at the time of the study.

Both informants believed that the main advantages of participating in the quality award process is that it illuminates and examines the whole organisation, thereby pointing out important improvement potentials. Furthermore, the informants believed that it had been a great learning experience that fostered everyone’s participation. The main drawback had been the lack of quality assurance of the award process. Furthermore, the informants believe that the SIQ model was narrow-minded. For example, the organisation had decided earlier that

they should not perform any employee satisfaction surveys. However, the award model and its framework did not benefit such a choice in their opinion. Furthermore, the informants believed that the quality award process was time-consuming.

Cross-Case Analysis

Customer Orientation

The informants of Sydkraft and Agria believed that the customer orientation was one of the core values that were strengthened the most by the use of the SIQ Model. Also in KD this core value was thought to have been strengthened over time, but the informants were not sure if this core value, or any of the others, had been strengthened due to the participation in a quality award process or if this was a result of other factors. All six informants claimed that the understanding of the concept of customer orientation had changed significantly over time in their organisations. For example, one informant at Sydkraft claimed, “We were forced to identify our customers in order to be able to initiate the work with the SIQ Model. At that time the thoughts of this approach were born”. At the time of the case study all three organisations were using a number of methodologies in order to strengthen their customer orientation. They had for example developed methodologies supporting comprehensive dialogues with their customers in order to fully understand their needs and expectations. The external examiners all thought that the organisation they had studied had been strongly customer oriented. Comments from the examiners included, for instance, that the organisations had developed and introduced systematic tools for measuring customer satisfaction.

Committed Leadership

According to the informants leadership commitment was crucial in order to get the benefits of participating in the quality award process. According to one informant at Agria committed leadership is “a requirement for this to work“. A number of methodologies and tools were initiated in order to strengthen this area. The organisations have, according to their award applications, initiated regular employee surveys, leader development programs, and more systematic strategic and business planning. According to their external examiners the commitment among leaders was strong in all organisations. In particular, leaders in the organisations were systematic in defining and following up goals both for individuals and for the whole organisation.

Participation by Everyone

According to the informants at Sydkraft and Agria the top managers of those companies tried actively to involve all personnel in the quality award processes. The informants also claimed that more employees had become involved in the strategic and business planning as a result of their award process participation. One informant at Agria claimed that after having participated in the award process it had become almost impossible not to involve employees in any larger changes. The employees had reached a state where they did not accept being uninvolved. One of Agria’s characteristics, concerning the participation by everyone, was that all employees had participated in the development and improvement work in the organisation. Also, employees at Sydkraft seemed to have the opportunity of influencing the direction of the organisation, mainly through the use of cross-functional teams. Furthermore, in the process of strategic planning at Sydkraft, “nearly 100 percent of the employees are involved”. According to the examiners, the employees at KD had the opportunity of affecting the setting up of goals and the selection of indicators to be measured.

Competence Development

At the time of the study Agria was using a number of tools for competence development in the organisation, for example Investors In People and Competence Analyze Tool. KD had developed a methodology, or training system that was called the Kronans Droghandel University (KDU), in order to support competence development. In this forum “we are trying to identify areas where the employees, the group and the whole company can be developed”, one of the informants stated. At the time of the study competence development was not a prioritized area at Sydkraft. The external examiners concluded that their organisations had approached the issue of competence development in a systematic way. However, for both Agria and KD the examiners indicated that the results of the competence development were an improvement area.

Long-range Perspective

All informants claimed that the process of strategic planning had been improved, and had thereby provided a more long-range perspective. According to the external examiners, all three organisations operated with long-range perspectives. Specifically, Agria was praised for using methodologies such as interviews with customers, focus groups and a comprehensive world analysis in order to be prepared for the future. Furthermore, Agria had started a separate company that was to work with development issues that had not directly to do with insurance activities. The already long-term perspective of Sydkraft had not been further developed by their participation in the quality award process.

Public Responsibility

All three organisations demonstrated clear signs of strong public responsibility and also had strong links with society. They were all sponsors of different forums and were all working with and communicating quality development in the country. According to the examiners it was beyond doubt that these organisations showed strong public responsibility. According to the applications to the Swedish Quality Award the methodologies and tools of the ISO 14000 were used continuously in all organisations to make sure that the environmental concerns were considered. However, tangible results concerning the environmental and social improvements had been difficult to determine.

Process Orientation

All three studied organisations were largely process oriented. At Sydkraft, one of the informants argues, “the fact that we choose to design our organisations in a way that supports process orientation indicates the importance of process orientation”. All the organisations had started using the tool of process maps in the middle of the 1990s and were now recognising benefits of having been focusing on their processes. Most processes in the organisations were running effectively and efficiently at the time of the study, with clearly assigned teams and roles. Specifically, KD had identified “process owners”, “process improvement teams” and “work groups” responsible for different parts of their process management. All organisations had identified connections between process orientation and the core value of continuous improvement. Most of the improvements were made within the process framework. According to the external examiners, the organisations were characterized by their high degrees of process orientation. The most significant improvement potentials found with regard to process orientation were associated with the systems for measurement and control.

Prevention

In order to prevent failures all the studied organisations had developed well-documented routines. The informants at Agria claimed that they were working more proactively now. By using the tool of a customer model, threats and risks for customers were identified in order to prevent failures, KD had begun working with the methodology of Risk Management, and Sydkraft claimed that “the largest difference today is that we involve customers and suppliers in the work of planning and actions” in order to prevent failures. According to the examiners of Agria it was not clear how they used their experiences to prevent future defects and deviations.

Continuous Improvement

The improvement work in the organisations was found to be both systematic and continuous. According to an informant of Agria, “we work all the time with improvements, which are a word that permeates us”. Agria had also, to a larger extent than the other companies, given the employees authority, not only to identify improvements, but also to execute some of them through a tool called the “Initiative Ladder”. A similar approach was used at Sydkraft. All the organisations had developed different methodologies for improvement. For example, Sydkraft used IT-support for handling the improvement work. They set goals for the improvement work and followed up the work continuously. The improvements made were at many different levels, ranging from small specific improvements to large improvement projects. Sydkraft claimed, “Today we receive and perform about 200 improvements annually”. Continuous improvement was, according to the examiners, systematic in the organisations, and of great help primarily in the process work. However, results and trends in this area had not been presented to a sufficient extent, according to the examiners.

Learning from Others

Through the methodology of benchmarking different activities were performed in all organisations. Sydkraft claimed, however, that this core value had not been prioritised during the planning phase. Agria benchmarked earlier quality award recipients and organisations that were not necessarily in the insurance business. One informant of Agria stated, “It is important to understand that you cannot copy everything straight off, rather you have to create the tools and involvement in your own organisation”. KD claimed that learning from others took place all the time and at different levels at the organisation. The organisations were, to different extents, systematic in their way of learning from others. However, neither Agria nor KD could show direct comparisons with competitors and leading organisations, according to the examiners.

Faster Response

Faster response was not prioritized at Sydkraft at the time of the case study, and the informants stated that there was an improvement potential concerning this core value. KD has daily contact with its customers and its customers’ customers to be able to react quickly if there is any problem. The informants emphasised, “we need to have fast responses to everything”. As previously mentioned Agria had developed a tool called the initiative ladder, which gave the employees an opportunity to react fast to problems that were not necessarily an issue for the management. According to the external examiners the intentions of the organisations were to react quickly to customer feedback, but it was not fully clear what actions had been performed in order to support this core value.

Management by Facts

Sydskraft had developed a number of indicators that were continuously monitored. In particular, they claimed, “We measure more, and are thereby able to improve”. However, they also stated that this core value was not prioritized. The informants at Agria stated that they had more of an “emotional organisation” and that they combined emotions with facts when they were making decisions. Agria and KD claimed that information was distributed effectively to the employees in order to support them in their decision-making. The organisations had, to different extents, extensive, systematic and structured management of facts, according to their award applications and the external examiners.

Interaction

Sydskraft interacted to a large extent with different divisions, customers and suppliers. In particular, they stated, “Today we interact significantly more between different plants and learn more from each other”. Agria had partner cooperation with all kinds of businesses, not only with insurance and animal organisations, and also had good cooperation with its owners. KD worked with the methodology of cross-functional teams and with a close relationship with its customers. Furthermore, the interaction with customers and suppliers had been recognized by the external examiners of all companies.

Summary of core value changes observed in the cases

On the whole, the organisations show many good examples, both systematic and integrated, of how organisational core values can be strengthened. In general, the main improvement potentials were found in the results area. According to the external examiners the organisations needed to improve measurement, analyse trends and also to perform comparisons with other leading organisations and competitors. None of the studied organisations claimed that they had, in monetary terms, been able to estimate how much they had earned or saved due to the improvements made.

Table I shows which core values were considered by the informants to have been most improved due to the participation in the quality award process. Furthermore, the results of the cross-case analysis, with regard to which core values have been most improved due to the participation in the quality award process, are presented in Table I. The core values of customer orientation, committed leadership, participation by everyone, process orientation and continuous improvement were considered to be most strengthened. The organisations have developed different methodologies and tools in order to strengthen these five core values. Some of the other studied core values have also been strengthened, but not to the same extent as the ones mentioned. The results of our study indicate that use of the SIQ Model strengthens certain core values more than others. This is in accordance with the findings of Eriksson (2003a), who also found that the five previously mentioned core values had been improved due to organisations having participated in quality award processes. In contrast to the findings of the present study, management by facts was also considered to have been strengthened by a large number of the informants studied in Eriksson (2003a). This difference between the studies might be due to the fact that the methods used in this study were not able to show a great impact on management by facts or that the organisations in this study are already relatively good at management by facts. The six mentioned core values are considered by many authors to be the essence of TQM today, see Bergman & Klefsjö (2003).

The two informants at Sydkraft seemed to have similar views on which core values that had primarily been strengthened due to the participation in the quality award process, see Table I. The informants at the other two organisations, however, had different views internally on

which core values had been improved. The informants that had overall responsibility in the organisation for the quality award process all indicated that leadership commitment was one of the core values that had been most strengthened. This was not the case for the informants with no overall responsibility.

Table I The table shows which core values were considered to have been most strengthened due to the participation in the quality award process. “A” indicates an informant with overall responsibility for the award process in the organisation, “B” indicates an informant with no overall responsibility and “C” indicates results of the cross-case analysis.

	Sydkraft			Agria			Kronans Droghandel		
	A	B	C	A	B	C	A	B	C
Customer Orientation	+	+	+	+		+		+	+
Committed Leadership	+		+	+		+	+		+
Participation by Everyone	+	+	+		+	+	+		
Competence Development					+				
Long-range Perspective									
Public Responsibility									
Process Orientation	+	+	+	+		+		+	+
Prevention									
Continuous Improvement		+	+		+	+	+		+
Learning from Others					+				
Faster Response									
Management by Facts									
Interaction									

Discussion

As reflected in Table I, there were some differences between the studied cases, regarding which values had been affected by the quality award process participation. All organisations had experienced improvements in the areas of customer orientation, committed leadership, process orientation and continuous improvement. At Sydkraft and Agria the participation by everyone had also been significantly strengthened. These two organisations have involved almost all their employees in the quality award process, and also, to a large extent, in their business planning. This was not the case at KD. However, KD had a much larger organisation in terms of the number of employees, and hence had a more difficult task involving all their employees. Furthermore, KD had many blue-collar workers in their organisation in comparison with Agria and Sydkraft, which had more white-collar workers and no workshop. This could be an explanation of the observed differences.

The answers of the informants seem to differ systematically depending on the role of the interviewee. This should not come as a surprise. For example, managers may believe that the main results of a change programme affect the leadership, because it is in that area they mainly see the effects. Employees with no overall responsibility may, on the other hand, see the main effects on the empowerment and competence development.

In general, the informants were positive to their organisation’s participation in the Swedish Quality Award process, and they also recommended other organisations to participate in an award process. As one informant stated, “It is much better to perform a systematic

improvement program with a structured model that covers all aspects of the business, than to have ad-hoc and unsystematic improvement work". The informants also claimed that it is important to have a long-range perspective in order to fully take advantage of the award process. They argued that the use of the SIQ Model had been important for their success, but some of the informants questioned the frequency of quality award participation. Every second year was thought to be more appropriate than every year. All organisations also complained that the participation in a quality award process had been very resource demanding. Our conclusion is that to participate in a quality award process every year could be too intense for organisations. For that reason, an application every second year could be more beneficial. By extending the time between applications the organisations get more time to complete improvement projects initiated as results of the evaluations. It is also clear that one needs to participate once in the process in order to be familiar with the model and the method of working. This would suggest that a second application could give a more beneficial outcome than the first. Simpson et al. (1998) also argue that it is widely accepted that subsequent self-assessment is more successful than the first attempt. If the studied organisations were to participate in a quality award process once again they would do it somewhat differently. The informants of Sydkraft argue, for example, that they would train more employees in the SIQ Model. KD would also involve more employees in the award process. In the planning phase, Sydkraft argues that one could learn more from others, instead of participating in a quality award process directly.

The value of TQM, through participating in a quality award process, seems to be beneficial according to the informants of this study. This is in line with, for example, the findings of Finn & Porter (1994) and Eriksson et al. (2003). As in earlier studies of self-assessment, the major benefits of participating in a quality award process were found to be a greater focus on improvement work, see Finn & Porter (1994) and van der Wiele et al. (1996), processes, see Gadd (1995), and customers, see Brown & van der Wiele (1996) and Eriksson (2003b). In addition, participation in a quality award process is also perceived to have an impact on committed leadership and participation by everyone.

In summary, critical success factors identified in this study of participating in a quality award process include the involvement and empowering of employees in the process. Furthermore, the leaders of the organisations must show strong long-term commitment to supporting the values of customer orientation, process orientation and continuous improvement.

Conclusions

The purpose of this study is to describe how organisations have utilized their quality award process participation in order to improve performance. The three studied organisations were selected partly due to their systematic improvement work. Examples of the application of methodologies and tools in order to improve organisational performance are provided in a number of areas. Specifically, the areas of customer orientation, process orientation, improvement work, committed leadership and participation by everyone have been strengthened through the participation in the quality award process.

The studied organisations may serve as good examples of how to perform an organisational change. In particular, the studied organisations have been successful in developing and communicating their vision, thereby empowering their employees. Like the studied organisations, other organisations considering participating in a quality award process need to have strong long-term commitment. Participating in a quality award process only once seems to be ineffective use of resources. The first time one participates in an award process one

mainly learns the craft. Often benefits cannot be measured until the second participation. It is also of importance to get enough time in between the applications in order to be able to complete as many as possible of the improvement projects.

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References

Agria (2003). *Agria Djurförsäkring. Årsredovisning 2002*. Agria Djurförsäkringar, Stockholm (In Swedish).

Allen, R. S. and Kilmann, R. H. (2001). "The role of the reward system for a total quality management based strategy", *Journal of Organizational Change*, Vol 14 No 2, pp. 110-131.

Bergman, B. and Klefsjö, B. (2003). *Quality from customers needs to customer satisfaction*. Second edition. Studentlitteratur, Lund, Sweden.

Brown, A. and van der Wiele, T. (1996). "Quality management self-assessment in Australia", *Total Quality Management*, Vol 7 No 3, pp. 293-307.

Chuan, T. K. and Soon, L. C. (2000). "A detailed trends analysis of national quality awards world-wide", *Total Quality Management*, Vol 11 No 8, pp. 1065-1088.

Conti, T. (2001). *Why most companies do not get the most out of their self-assessments*. Proceedings from the 55th annual ASQ Congress, 9-11 May 2001, Charlotte, North Carolina.

Conti, T. (2002). *A road map through the fog of quality and organizational assessments*. Proceedings from the 7th World Congress for Total Quality Management: Business excellence. Make it happen, 25-27 June 2002, Verona, Italy.

EFQM (1996). *Self-Assessment. Guidelines for companies*. European Foundation for Quality Management (EFQM), Brussels.

EFQM (1999). *The EFQM excellence model*. European Foundation for Quality Management (EFQM), Brussels.

EFQM (2003). *EFQM Excellence Model*. The European Foundation for Quality Management (EFQM), Brussels.

Eriksson, H. (2003a). "Organisational value from participating in a quality award process. A Swedish study", *The TQM Magazine*, Vol 16 No 2.

Eriksson, H. (2003b). "Experiences of working with in-company quality awards", *The TQM Magazine*, Vol 15 No 6.

- Eriksson, H. and Hansson, J. (2003). "The impact of TQM on financial performance", *Measuring Business Excellence*, Vol 7 No 1, pp. 36-50.
- Eriksson, H., Johansson, F. and Wiklund, H. (2003). "Effects of in-company quality awards on organisational performance", *Total Quality Management & Business Excellence*, Vol 14 No 2, pp. 235-242.
- Eriksson, H. and Palmberg, K. (2003). *Tre organisationers erfarenheter från utmärkelseprocessen till Utmärkelsen Svensk Kvalitet (USK)*. Research Report 2003:5. Division of Quality and Environmental Management, Luleå University of Technology, Luleå, Sweden (In Swedish).
- Finn, M. and Porter, L. J. (1994). "TQM self-assessment in the UK", *The TQM Magazine*, Vol 6 No 4, pp. 56-61.
- Gadd, K. W. (1995). "Business self-assessment. A strategic tool for building process robustness and achieving integrated management", *Business Process Re-engineering & Management Journal*, Vol 1 No 3, pp. 66-85.
- Ghobadian, A. and Gallear, D. (2001). "TQM implementation: an empirical examination and proposed generic model", *Omega*, Vol 29 No 4, pp. 343-359.
- Hellsten, U. and Klefsjö, B. (2000). "TQM as a management system consisting of values, techniques and tools", *TQM Magazine*, Vol 12 No 4, pp. 238-244.
- Hendricks, K. B. and Singhal, V. R. (1996). "Quality Awards and the market value of the firm: An empirical investigation", *Management Science*, Vol 42 No 3, pp. 415-436.
- Hendricks, K. B. and Singhal, V. R. (1997). "Does implementing an effective TQM program actually improve operating performance? Empirical evidence from firms that have won quality awards", *Management Science*, Vol 43 No 9, pp. 1258-1274.
- Johnson, C. N. (2002). "Annual quality awards listing", *Quality Progress*, Vol 35 No 8, pp. 48-57.
- Kronans Droghandel (no date). *Kronans Droghandel* (On line). Available at: <http://www.kd.se/English/kdsweden/> (2003, August 28).
- Länsförsäkringar (2002). *Länsförsäkringar* (On line). Available at: http://www2.lansforsakringar.se/Info/In_English/default.htm (2003, August 28).
- McAdam, R. and Bannister, A. (2001). "Business performance measurement and change management within TQM framework", *International Journal of Operations & Production Management*, Vol 21 No 1/2, pp. 88-107.
- NIST (2003). *Criteria for Performance Excellence*. National Institute of Standard and Technology, Gaithersburg, MD.
- Puay, S. H., Tan, K. C., Xie, M. and Goh, T. N. (1998). "A comparative study of nine national quality awards", *The TQM Magazine*, Vol 10 No 1, pp. 30-39.

Samson, D. and Terziovski, M. (1999). "The relationship between Total Quality Management practices and operational performance", *Journal of Operations Management*, Vol 17 No 4, pp. 393-409.

Sila, I. and Ebrahimpour, M. (2002). "An investigation of the total quality management survey based research published between 1989 and 2002", *International Journal of Quality and Reliability Management*, Vol 19 No 7, pp. 902-970.

Simpson, R., Meegan, S. and O'Neill, E. (1998). "Embracing the feedback: An award winner's experience", *Total Quality Management*, Vol 9 No 4/5, pp. 214-218.

SIQ (2002). *The SIQ model for performance excellence*. Swedish Institute for Quality (SIQ), Gothenburg.

Svensson, M. (2002). *TQM-based self-assessment in educational organisations*. Licentiate thesis. Division of Quality Technology & Statistics. Luleå University of Technology, Luleå, Sweden.

Svensson, M. and Klefsjö, B. (2000). "Experience from creating a quality culture for continuous improvements in the Swedish school sector by using self-assessments", *Total Quality Management*, Vol 11 No 4/5&6, pp. 800-807.

Sydkraft (no date). *The Group* (On line). Available at: <http://www.sydkraft.se/> (2003, August 25).

Sydkraft Vattenkraft (2003). *Sydkraft Vattenkraft AB. Årsredovisning 2002*. Sydkraft, Sundsvall. (In Swedish).

Tan, K. C., Wong, M. F., Mehta, T. and Khoo, H. H. (2003). "Factors effecting the development of national quality awards", *Measuring Business Excellence*, Vol 7 No 3, pp. 37-45.

van der Wiele, A., Williams, A. R. T., Dale, B. G., Carter, G., Kolb, F., Luzon, D. M., Schmidt, A. and Wallace, M. (1996). "Self-assessment. A study of progress in Europe's leading organizations in quality management practices", *International Journal of Quality and Reliability Management*, Vol 13 No 1, pp. 84-104.

Vokurka, R. J., Stading, G. L. and Brazeal, J. (2000). "A comparative analysis of national and regional quality awards", *Quality Progress*, Vol 33 No 8, pp. 41-49.

Yin, R. K. (1994). *Case study research. Design and methods*. Second edition. Sage Publications, Thousand Oaks, California.