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THE SELF-ASSESSMENT PROCESS AND IMPACTS ON PERFORMANCE: A CASE STUDY

Abstract: *The purpose of this paper is to analyze the effectiveness of the European Foundation for Quality Management model self-assessment process and its effects on performance in a private manufacturing firm. A case study is used, considering the analysis of primary and secondary data. This paper explains the self-assessment process using a workshop approach, and identifies benefits, difficulties and success factors. It also shows that self-assessment has partly improved performance and the attitudes and behaviour of management and employees, reinforcing the firm's competitiveness. The contribution of this paper is to provide lessons for managers of other organisations to learn from.*

Key words: *quality management; Total quality Management; Self-assessment; EFQM model.*

1. INTRODUCTION

The academic literature on self-assessment has concentrated on the study of quality awards models and their relationship to performance (Wisner and Eakins, 1994; Rahman, 2001), the self-assessment practice, process and benefits (Van der Wiele *et al.*, 1996a,b; Ritchie and Dale, 2000; Samuelsson and Nilsson, 2002), and the development of a self-assessment tool based on the criteria of quality awards (Lee and Quazi, 2001). However, there is little evidence of the complete self-assessment process and its impacts on performance from an academic point of view.

This aim of this paper is to show how a self-assessment process is developed and why it may succeed, indicating its benefits, difficulties, success factors and impacts on performance. A case study is used, analyzing primary and secondary data from a private Spanish firm. The contribution of this paper is to give a complete overview of the self-assessment process in a Spanish firm, using

a specific self-assessment approach, looking at all the success factors required to lead to successful results.

The paper begins with a review of the literature on the self-assessment process, the benefits, difficulties and success key factors, and a section on methodology. The results section then describes the stages in the development of a self-assessment exercise, the difficulties encountered, the benefits obtained, the success factors and the impacts on performance. The paper finishes with a number of conclusions.

2. LITERATURE REVIEW

Firms can use standardized quality models or academic models as a guide to self-assess their quality practices. Regarding standardized quality models, the Malcolm Baldrige National Quality Award model in the USA (Kumar, 2007; see http://www.quality.nist.gov/Business_Criteria.htm), the EFQM model in Europe (Conti,

2007; EFQM, 2003), and the Deming Prize model in Japan (Kumar, 2007; see <http://www.juse.or.jp/e/deming/index.html>) are the most well known award models used for self-assessment.

Concerning the academic models, mention should be made here the studies developing instruments for measuring quality management, assessing reliability and validity, applicable to manufacturing firms (Flynn *et al.*, 1994; Ahire *et al.*, 1996) or to both the manufacturing and service industries (Saraph *et al.*, 1989; Black and Porter, 1995; Rao *et al.*, 1999; Conca *et al.*, 2004).

Both the standardized quality models and academic models can be used to identify improvement actions and link these to the business plan. Thus, self-assessment is a methodology, while standardized quality models and academic models are tools for self-assessment.

Generally speaking, firms may resort to different approaches to self-assessment: questionnaires, workshops, pro-forma and award simulation. Irrespective of the approach chosen, the generic stages of self-assessment are as follows: developing management commitment, communicating self-assessment plans, planning self-assessment, establishing teams and training, conducting self-assessment, establishing action plans, implementing action plans and reviewing (EFQM, 2003).

Although models and scope vary, a common objective of self-assessment processes is to identify areas for improvement (Ritchie and Dale, 2000; Sharma and Hoque, 2002; Ford and Evans, 2006). This process makes it possible to identify strengths and areas in which improvements can be made in order to develop an action plan, which may then be linked to strategic planning; measure performance; involve people in developing a process improvement approach to quality; and raise understanding and awareness of quality related issues (Van der Wiele *et al.*, 1996a,b; Van der Wiele and Brown, 1999;

Ritchie and Dale, 2000; Samuelsson and Nilsson, 2002; EFQM, 2003). In this sense, Ritchie and Dale (2000) found the benefits associated with the self-assessment process based on a study of self-assessment practices in 10 organisations. The benefits they listed included identifying improvement actions, encouraging employee involvement and ownership, raising understanding and awareness of quality related issues, developing a common approach to improvement across the company, helping to refocus employees' attention on quality, providing a "health check" of processes and operations, and encouraging improvements in performance.

Nevertheless, the practice of some companies shows a number of difficulties which may hinder the process. Ritchie and Dale (2000) pointed out the lack of commitment and enthusiasm from management and employees, the time-consuming nature of the process, not knowing where to start and lack of resources. Other possible difficulties include lack of support from the quality department and difficulties in implementing improvement actions.

In view of all this, the literature lists a number of success factors to avoid these obstacles and ensure successful self-assessment. These factors include management commitment, employee involvement, open communication, training, the development of an improvement plan and follow-up (Van der Wiele *et al.*, 1996b; Van der Wiele and Brown, 1999; Ritchie and Dale, 2000; Samuelsson and Nilsson, 2002; Ford and Evans, 2006). In this respect, some authors have emphasized the need to include self-assessment results in the strategic plan (Ritchie and Dale, 2000), whereas others say that some firms carry out the process successfully without including them (Eriksson, 2004).

This review shows that organisations may obtain positive results from this process. Van der Wiele and Brown (1999) found a very positive perception of the effects of

self-assessment on business results. Similarly, Ritchie and Dale (2000), Eriksson (2004), Joiner (2007), Tutuncu and Kucukusta (2007) and Tanninen *et al.* (2010), among others, showed that one benefit of self-assessment could be an improvement of business results. These and other similar contributions show that self-assessment can positively influence performance, and that there are a number of factors which may reinforce this connection.

3. METHODOLOGY

In order to understand how the self-assessment process is developed and why it may succeed, the case study approach has been used. Case study research is defined as research that provides a detailed account and analysis of one or more cases (Johnson and Christensen, 2004). This method has been chosen because this approach is preferred when “how” and “why” questions are being asked (Yin, 1984). The research questions are “how has EFQM self-assessment been carried out?”, and “why has EFQM self-assessment been successful?” Case studies can involve either single or multiple cases and the evidence may be qualitative, quantitative or both (Yin, 1984; Stake, 2000). The interest of this research is to show a self-assessment exercise in detail at a private manufacturing organisation using quantitative and qualitative evidence.

Primary and secondary data were collected during the research process. Data collection combined several methods: interviews and surveys, direct observation, organisation documents and feedback. This way, the findings have been validated by employing the triangulation technique, which reinforces the belief that the result is a valid one, and not a methodological artifact (Bouchard, 1976; Yin, 1984).

The primary data came via observation (a visit to the firm and contacts with employees) and interviews with the person responsible for the organisation department, one employee in

this department and top management. This information was used to analyze the aim of the self-assessment process and why it was implemented; how the process began; the stages, difficulties, benefits, success factors and documents developed; the relationship to strategic planning; the improvements in the nine criteria of the EFQM model, and impacts on performance. One of the interviews was also supported by a brief questionnaire (measured in a five-point scale) on:

- The difficulties and benefits of the process, based on Ritchie and Dale (2000). More specifically, attention was paid to the difficulties and benefits identified above.
- The impacts on performance, based on the measurements used by Powell (1995), Samson and Terziosvski (1999) and Kaynak (2003).
- The improvements in the nine criteria of the EFQM model.

Secondary data sources included access to internal and external documents: the self-assessment plan, written material produced during the process (forms listing strengths, weaknesses and improvement actions, forms containing action plans), objectives, indicators, materials from the training sessions, the webpage and the SABI database. This information was used to contrast the primary data.

The firm selected was Pikolinos, because quality is a strategic variable of its management, and the company has applied a successful self-assessment exercise. The firm is committed to a quality culture, as proven by the certificates and awards obtained. Pikolinos was the first footwear firm in Spain to obtain the ISO 9001 certificate; it has also been awarded the ISO 14001 certificate, and has received several national and international awards from several public and private bodies, related to total quality and export and training, among other aspects.

Pikolinos is a private Spanish footwear firm, engaged in the sale, purchase, commercialization and distribution of all types of footwear. The company aims to satisfy and

live up to consumers' expectations regarding design, comfort and quality, and distributes and sells ladies' and men's footwear in 45 countries worldwide, with 100 direct employees and 1800 indirect employees working in 19 distribution centres. Pikolinos outsources production, setting quality criteria. Specifically, in 2004, the company had a turnover of 55 million euros, with 70% of its production being exported.

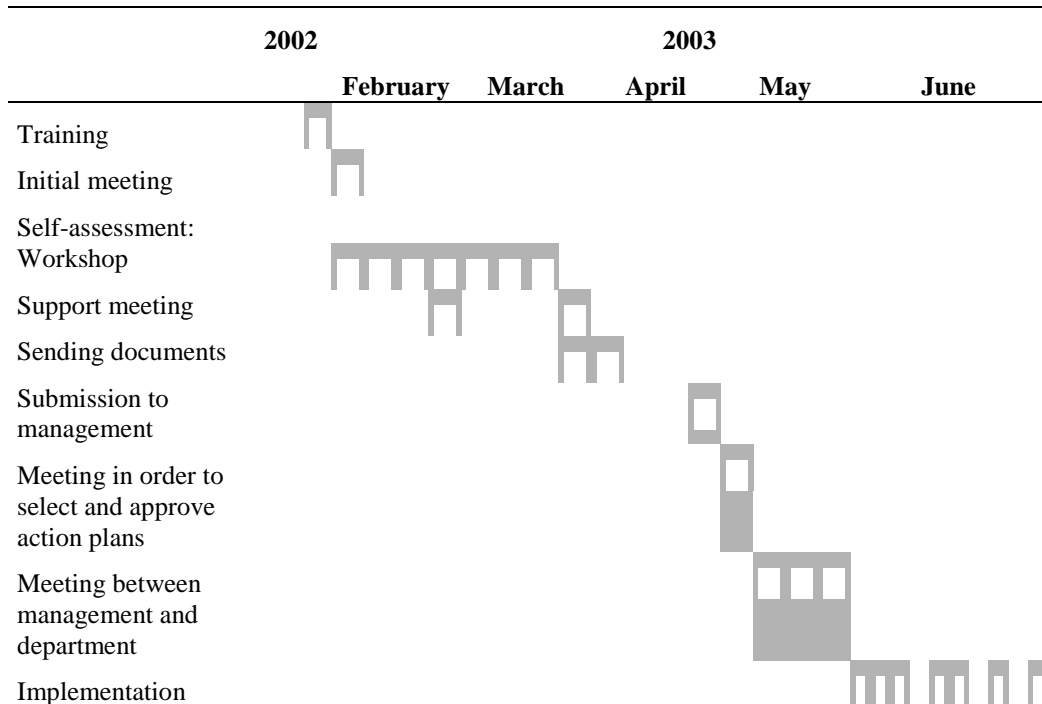
4. RESULTS

Pikolinos has always focused on human resources, innovation and the continuous improvement of processes. The firm's commitment to quality has led it to adopt

new management procedures in order to improve competitiveness, such as the ISO 9001 standard (1997), strategic planning (2001), the ISO 14001 standard (2004), and the EFQM model (2003 and 2005). The strategic plan for 2001-2004 helped to design objectives and actions aimed at establishing the long-term general guidelines for the firm. In 2004 there was a revision, and a new plan was approved for 2004-2008.

The self-assessment process began with the support of an EFQM licensee (external advisor) who taught a training course to the heads of department in late 2002, and an initial self-assessment meeting at which the management team and the advisor planned the process and created the self-assessment teams.

Table 1. Self-assessment plan



This plan focused on defining the scope of activities and planning their development, and the procedure began in February 2003 and ended in June 2003 (Table 1). After two years, the improvement actions identified

were fulfilled as planned. Another self-assessment exercise was carried out in 2005.

We now analyse how the self-assessment stages listed in the literature section were implemented, indicating the

benefits, difficulties, success factors and impacts on performance in order to understand why self-assessment can be successful.

Step 1 – Developing Management Commitment

The literature shows that management leadership is an important factor in self-assessment (Van der Wiele *et al.*, 1996a). At Pikolinos, management commitment has been obtained through the approval and communication of the process, attendance at the training course, participation in a team and support for the improvement actions. This commitment made the people in charge of implementing the process aware of its usefulness.

Step 2 – Communicating Plans

The communication process is important to make the self-assessment objectives clear to everyone involved (Samuelsson and Nilsson, 2002). At Pikolinos, communication with the management team, which was directly involved in the process, was made at the initial self-assessment meeting. Communication with the employees was carried out in two ways: during one of the two yearly meetings with all employees, and through the firm's Intranet, with a message sent to all staff. The results of this step were that the employees understood what was to be done, why, and what the purpose of the methodology was.

Step 3 – Planning Self Assessment

As we mentioned in the literature section, a firm may follow various approaches; Pikolinos decided on the workshop approach. This entails the creation of teams that meet periodically to identify strengths, areas for improvement and improvement actions for each criterion in the model. Once this has been done, the team members prioritize the improvement actions and agree on an action plan. The result of this stage is the selection of the method for the implementation of the self-assessment,

and therefore, for the delimitation of the resources that may be required.

Step 4 –Establishing Teams and Training

Some firms usually create groups in such a way that each group assesses one or two of the nine criteria (Samuelsson and Nilsson, 2002). Nine groups were created, totalling 16 managers from all departments in the organisation. Each group consisted of 4 members, of which at least 2 belonged to the area under assessment and at least one did not. The purpose was to “mix” people who were well acquainted with the processes with others from outside the area, who would play a critical role. All belonged to the management team, and each took part in two groups. Each group appointed a leader, entrusted with calling meetings and coordinating activities.

Training is a major feature of all quality management programmes and a priority when implementing self-assessment (Van der Wiele and Brown, 1999). The training seminar for the nine groups was conducted by the external advisor. This is a course held for assessors of the EFQM model, in which the groups received the EFQM model, a case study and an assessment book. The duration of the course was two days (nineteen hours).

This training was necessary to acquaint participants with the EFQM model (criteria, methodology, marking and consensus) and to carry out a case study. In this way, the foundations were laid in order to carry out a successful self-assessment exercise and to overcome one of the difficulties mentioned in the literature, i.e. not knowing where to start. Once the teams were created and the training course had been held, the nine teams undertook the stages described below, as listed in Table 2.

Step 5 – Conducting Self Assessment

The work consisted of workshops and support meetings. The former were aimed at searching for evidence to identify strengths, areas for improvement and improvement actions. The purpose of the support meetings

was to receive feedback from the external advisor, who reviewed each group's work.

First, a number of workshops were held, with each group meeting for two hours, approximately twice a week for two or three weeks. At the end of these workshops each team had agreed on a set of strengths, areas for improvement and improvement actions for each of the criteria allocated to the group. The result of the meetings was to reflect the strengths, areas for improvement and improvement actions identified. At this stage, 50% of the work had already been carried out.

Second, a support meeting was held, each group being helped by the advisor, who solved doubts and reviewed the work carried out. Each meeting lasted approximately between one and a half and two hours.

Third, several workshops were held, at which the team members met again to improve their work by incorporating the advisor's suggestions. As a sizeable part of the work had already been done, at this stage the groups usually met just once a week, for two or three weeks. At the end of these workshops the team members had prepared a set of action plans, prioritized in order of importance (I) and easy implementation (F), on a scale from 1 to 5. The improvement actions were evaluated by means of the following formula, as suggested by the advisor: $7I + 3F$. These evaluation criteria were used to prioritize the improvement actions and so facilitate decision-making, as the actions were difficult to implement due to feasibility and cost, and could not all be implemented at the same time. At this stage, 90% of the work had been completed.

Fourth, the team members met with the advisor again, for a second, one-hour support session, in order to review the team's progress. At these support meetings, the advisor's experience allowed him to refute and encourage group reflexion on previous decisions. This made it possible to complete the identification of strengths, areas for improvement and improvement actions to be sent to the advisor for final review.

Step 6 – Establishing Action Plans

Some authors have pointed out that establishing an improvement plan to be presented to higher management is a critical phase of self-assessment (Van der Wiele *et al.*, 1996b; Van der Wiele and Brown, 1999; Samuelsson and Nilsson, 2002). At Pikolinos, meetings are held at which each team leader gives a 10-15 minute presentation of their results and the plans suggested. This meeting allows each group and the management to become acquainted with the results of the teams.

At a later meeting, the managing director, aided by the advisor, selects and approves the action plans which are deemed a priority. This is important in order to decide which plans are to be implemented and in what order. This is the foundation of the strategic quality plan.

Step 7 – Implementing Action Plans

At Pikolinos, once the improvement plans have been approved, they become strategic planning objectives. This supports the suggestion made by some authors that plans for improvement should be included into the strategic business plan. This stage results in the firm's improvement projects, which have become strategic goals. Later, a meeting between the top manager and each head of department will specify the actions to be carried out in order to achieve these goals. The meeting ensures the commitment of each head of department for the implementation of each plan.

Up to this step, the work carried out by the teams is as shown in Table 2. Now the implementation and follow-up stages begin.

Step 8 – Review

Management-approved improvement actions have more possibilities of being implemented. Nevertheless, some kind of monitoring must be carried out (Van der Wiele and Brown, 1999; Ford and Evans, 2006). This review consists in periodically monitoring the degree of implementation of the actions. At Pikolinos, the person

responsible for the improvement action met with the Organisation manager every two months, in order to report on the degree of implementation. Then, the person responsible for Organisation reported to top management. This makes it possible to examine the degree of achievement of each goal and to analyse the difficulties that may have arisen, why it was not being fulfilled, and also to make decisions on potential actions. The result of this meeting was included in minutes, which listed any decisions made.

Once the development of the process is known, an analysis is then made of the issues dealt with in the interviews concerning difficulties, benefits, success factors and impacts on performance. Regarding difficulties, those encountered at Pikolinos were lack of time for meetings and, sometimes, to search for documents or other

information. As for the answers to the questionnaire, they reflect that the factors which might hinder the process are lack of management and staff commitment, followed by not knowing where to start, lack of resources and the implementation of improvement actions. The least important difficulties were the time consumed in the process and the support of the quality unit. Although time was indeed mentioned as a difficulty because it entails a new task, the respondents did not perceive it as an important problem because, if top management is really committed, the staff involved will devote the required time to self-assessment. Regarding the support of the quality unit, the lack of importance attached to this aspect does not mean that this support is not necessary, but rather that in this case there has been strong, basic support from an external advisor.

Table 2. Degree of implementation of improvement actions

	Number of improvement actions	Follow-up		
		Degree of implementation	Number of improvement actions	Deadline for implementation (1)
Self-assessment (year 2003)	76	0 %	2	April 2008
		< 50 %	3	April 2007
		50%	-	
		> 50 %	2	April 2007
		100%	69	December 2003 (12)
				December 2004 (22)
			December 2005 (13)	
			December 2006 (15)	
			April 2007 (2)	
			April 2008 (5)	
Self-assessment (year 2005)	78	0 %	5	April 2008
		< 50 %	9	April 2007 (6)
				April 2008 (3)
		50%	2	April 2007 (1)
		> 50 %	2	April 2008 (1)
		100%	2	April de 2007
		60	April 2007 (8)	
			December 2005-06 (52)	

(1) The figures in brackets indicate the number of actions from the total implemented before each deadline.

Concerning benefits, the one fully achieved (5 in the questionnaire) was the identification of improvement actions. Other benefits partially achieved were: obtaining employee involvement, making the firm's processes known, encouraging quality improvement (score: 4), providing knowledge and awareness of quality-related issues, creating a continuous improvement approach for the entire firm and making staff aware of the importance of quality (score: 3).

Accordingly, considering the respondents' perceptions and what we have learnt from this case study, the success factors that may increase the likelihood of success in this process are as follows:

- Management commitment. For employees to perceive commitment, managers must set an example, attach importance to the subject and approve

the improvement plans. This, in turn, boosts another two factors: the involvement of employees in the process and the implementation and follow-up of the plans identified.

- Communication with employees, explaining the purpose of the whole process, at least to the teams involved in carrying out the self-assessment. Information on the usefulness of the process was provided to the teams (so that they were aware of the benefits for their respective departments) and to the rest of employees, as discussed in stage 2.
- Training, as the means of facilitating the work of the teams involved in the process.

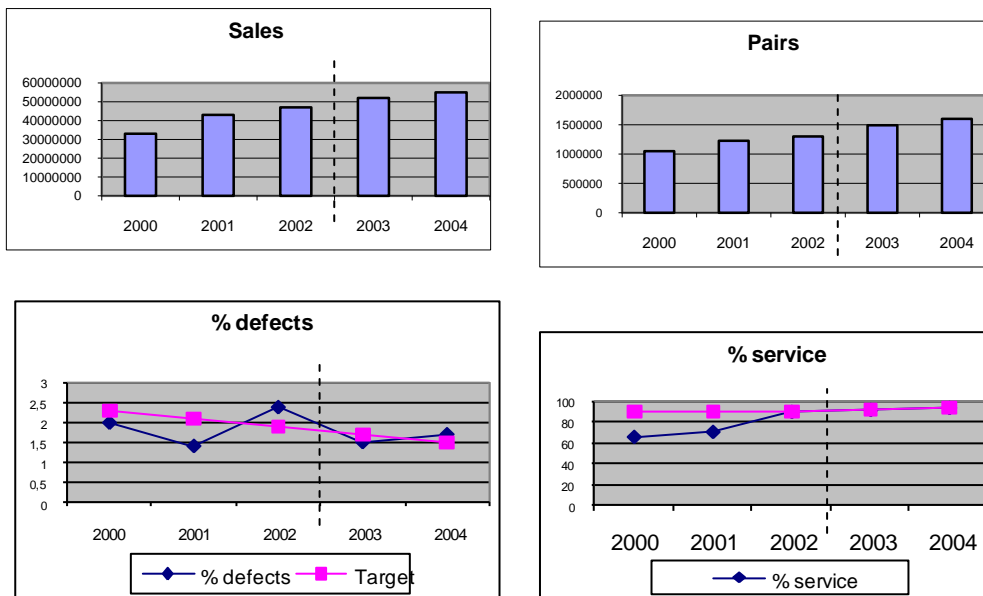


Figure 1. Pikolinos' measures

Finally, an analysis was made of the improvements which the mere application of self-assessment had produced in the nine EFQM criteria and the impact on performance. The answers to the

questionnaire showed that there had indeed been improvements in all nine criteria. The most noticeable effects were observed in the people and employee results criteria, whereas more moderate effects were

obtained in leadership, customer results, society results and key results. The impact on policy and strategy, resources and processes was small.

Regarding impact on performance, and based on questionnaire answers, the greatest impact was perceived in employee morale, with a moderate impact on customer satisfaction, cost of quality, and cost of scrap and rework. However, there was little impact on productivity, defect reduction, delivery in full on time, product quality, sales growth, financial performance, sales and competitive position. No impact was perceived on market share and market share growth. Besides, several objective indicators show that Pikolinos has improved its performance. Finally, the process has been successful because improvement actions have been developed in time.

Consequently, self-assessment has been beneficial because, according to the respondents, areas for improvement have been identified, transformed into objectives, with a person in charge and a deadline for fulfilment, and integrated into the strategic plan for 2004-2008.

As these objectives are being fulfilled as expected, there is a fulfilment of the expectations, as can be seen in Figure 1, which shows that there have been real positive effects.

5. CONCLUSIONS

This paper has studied the whole self-assessment process by presenting one case study in detail. The findings show that developing all the stages in the process might be a way to ensure success; the benefits, difficulties and success factors; and emphasize those outcomes related to self-assessment process depending on the internalization of the process and the EFQM model in daily practice based on quality culture. Based on these results, six key lessons may be derived for other organisations. First, the company used self-

assessment as a means of structuring continuous improvement planning and an input from the strategic planning process.

Second, the most important obstacles that may hinder the process are lack of management and staff commitment, lack of training and lack of time and resources. The recommendation for managers is that the criteria can be divided among the teams in the workshop approach, in order to overcome the lack of time. It is also necessary to have internal support, e.g. from the quality area, or external support (as in Pikolinos) in order to overcome training-related problems.

Third, the benefits obtained agree with the literature on points such as identification of strengths, areas for improvement and improvement actions, development of action plans and personnel involvement in quality improvement.

Fourth, why may the process be successful? Based on the data from this case, for the process to function efficiently it needs management and staff commitment, considered the most important aspect by the respondents; and communication and training. Communication and training let people know where to start and how to work; management commitment facilitates the legitimacy of the exercise, communication and training and employee involvement. Without the commitment of all managers and support from top management, the exercise could not have succeeded. These strategic conditions play an important role because they facilitate another success factor: the implementation and follow-up of improvement plans. The commitment of the managers was also easy to obtain because strategic planning and a quality system have created a continuous improvement culture at Pikolinos. This indicates that the attitude of managers towards quality has influenced the self-assessment process. Thus, the quality culture existing in the firm and the capabilities and resources generated by strategic planning and the quality system, such as staff involvement, continuous improvement, teamwork, etc., have all had a positive influence upon the self-assessment process.

Fifth, self-assessment has generated an improvement in all nine criteria of the EFQM model and positive impacts on performance. The improvements in the criteria are due both to self-assessment and to strategic planning and the quality management system, which have facilitated the usage of self-assessment methods. Thus, the most important improvements in the EFQM criteria, exclusively derived from self-assessment, have been generated in the firm's weakest areas; the smallest effects have been detected in policy and strategy, resources and processes criteria, because the already existent strategic planning and quality system had progressively developed these criteria.

Impacts on performance were positive, as shown by the results section. The results given in Figure 1 are partly due to the strategic planning process and to the quality system, including self-assessment. This means that self-assessment has had an influence upon the results. Thus, the main aim of the EFQM model was an intermediate aim, helping to get good key performance indicators.

As a result, strategic planning and the quality system have boosted Pikolinos' competitiveness, allowing them, for instance, to face up successfully to competition from Asian countries, currently a major

preoccupation of the Spanish footwear sector. Within these two systems, the self-assessment exercise has partly influenced the improved performance and the attitude and behaviour of managers and staff, which has in turn reinforced the firm's competitiveness.

On the whole, the data and the respondents' perception show that self-assessment can generate positive results, although, when asked whether self-assessment would be of any use to a firm with no strategic planning process, the respondents answered positively. Therefore, self-assessment may generate positive results, regardless of whether it is carried out within a strategic planning process, provided the whole process is completed and the key requirements are met. The experience at Pikolinos may act as an inspiration to the managers of other organisations in their specific self-assessment exercises. Although this study enhances the knowledge of the self-assessment process and its impact on performance, its limitations provide an indication of the avenues that future research might explore. First, more detail case studies would allow a more thorough examination of the process in private and public organisations. Second, quantitative analysis should be developed in order to test these lessons.

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