

	European Survey on Quality Management – Requirement Analysis of European SME's	Rev:	Aprov.:	IM-04/99
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I Results of the Requirement Analysis (Cumulated)

The following section explains the structure of the questionnaire developed for this Workpackage and while doing so, also presents the cumulated results of the analysis one by one. These data are represented in a graphical form and are commented where appropriate to give the reader a comprehensive overview of the requirement situation of SMEs with regard to quality management models and methodologies.

I.1 General results

The questions of the requirement analysis begin by asking if the company knows the most important quality standards ISO 9000, including its Version 2000, ISO 14000 (for environmental certification), and of course, EFQM or a national quality prize based on EFQM. If the company has heard of any other quality norms, there is also space for this. This first question is important for two reasons. Next to the obvious objective of assessing how well the EFQM Model of Excellence is known, this question is also a screening test for companies which are completely “quality illiterate”.

As expected, almost all of the interviewed companies knew at least the ISO 9000 standard. That is, with exception of the Portuguese SMEs. In Alsace, the Basque Country, and Upper Austria, all but one of the 30 interviewed companies knew the ISO 9000 standard. In Portugal, only 20 of the surveyed 30 companies knew ISO 9000. But since 15 of the sample were actually ISO-certified, this means that ten out of the fifteen non-certified companies did not know ISO 9000, a surprisingly high number. Still concerning ISO 9000, relatively few of the surveyed SMEs had heard about the changes for 2000, around 36%. The same is true for the environmental series of norms called ISO 14000. Only around 31% of the companies had heard of it. But the absolute loser in this survey was EFQM: only very few of the SMEs, around 20%, were familiar this term and its Model of Excellence.

The next two questions then ask if the company is following any model of excellence, and if the company is ISO certified. As had been feared by the consortium, the survey confirmed the findings of many similar studies: very few of the SMEs that participated in the survey were following any excellence model: in Portugal, none at all, in Upper Austria, only one adept of the EFQM Model of Excellence, and in Alsace, several companies in the foodstuff industry following the HACCP model (similar to Failure Mode and Effect Analysis, only carried out continuously and specifically for perishable goods) which in this industry *is* considered an excellence model. The Basque Country turned out to be a positive exception to the rule, with one third of the respondents following an excellence model. Some of them are using the EFQM Model of Excellence in a quest of gaining the Basque quality award, others prompted to follow an excellence model by their customers (suppliers of the Mondragón group).

Concerning the question as to which support measures the SME might need to implement a quality management system, Consulting and Training clearly dominated the field (both at around 40%); while Coaching was hardly considered a critical factor to quality system implementation (8%). Of the 10% of companies that filled out the “Other” field as the most important support measure for quality system implementation, “Funding” was the most frequent.

Almost without exception, the companies requested a copy of this survey’s results. A copy of this document will be transferred to them within the next days by the partners of the consortium. This confirms the general impression the auditors had while carrying out the analysis that there is substantial interest in these European SMEs for quality-related matters.

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I.2 Results Concerning Non-ISO-certified companies

If the company is not ISO-certified, the first questions asked try to assess whether the company is at all interested in quality management, or if it is completely insensitive to this topic.

The first questions are therefore if the company has any quality policy at all, and if the company has ever conducted a quality programme in the last 5 years. The companies that have are then asked to comment on the effect the quality programme had on their operations and what difficulties they had encountered.

An overwhelming 81% of the surveyed companies stated having a quality policy. This means that even if these companies do not have the quality “label” of ISO 9000, this does not mean they are insensitive to quality matters. This is underlined by the fact that 51% of the companies introduced a quality programme in the last 5 years—and did so with positive results. Almost all of the companies that introduced a such programme saw their product quality increase (93%), and 75% of the companies experienced cost reductions and improvements in internal support activities. 71% of the respondents communicated better internally and with customers, and 68% enhanced their communication with suppliers and their lead times. The only improvement that occurred rather rarely (34%) was an actual improvement of the products and services themselves. It seems that a quality approach does not necessarily lead to the creative activities that bring about new or improved products and services in terms of their features.

After having understood how the company situates itself relative to quality-related matters, the next logical question to ask is of course whether the company is planning to move ahead in direction of quality. The next question therefore asks whether the SME is planning on implementing a quality management system in the near future—the next 3 years. If so, the company is asked to state whether it is planning to implement one of the ISO standards, the EFQM model, or any other methodology. If not, it is asked to state its reasons.

Again, the response of these assumed “quality laggards” was surprising. Over 80% of the non-certified companies were planning to introduce a quality management system within the next 3 years. However, and this was somewhat disappointing to the consortium, the lion’s share goes to ISO 9000: 93% of those that will implement a quality management system will base it on ISO 9000 or its Version 2000. The rest is divided between 5% for ISO 14000 and a mere 2% for EFQM.

I.3 Results Concerning ISO-certified companies

The ISO-certified companies are asked to go somewhat more into depth in explaining their needs in terms of quality management systems. This is only natural, for they have already made the first step towards total quality: they have defined the processes they need to deliver quality to their customers, and have “freezed” these processes to get their ISO 9000 certification. The next step for them would now be to move towards Total Quality, meaning doing everything to satisfy the needs of their customers. To this end, the questions for the certified companies concentrate on assessing to which extent the quality management system they initiated for their certification is now being followed up.

The first question is directed at the estimation of the SME as to how far they think they have implemented a “real” quality management system, meaning a system that not only implies all departments of the company, but also integrates leadership, and even customers and suppliers. The results show how long the road to Total Quality can be: only 25% of the certified companies state having completely implemented a such system. Over 60% say they have partly implemented the system, which is rather normal since these companies are certified and *should* be striving for a such system. 10% of the respondents are even so honest to say that a such system is “not at all” implemented in their companies.

The next two questions are about the functions involved in implementing the quality management system. To the question of who initiated the implementation, a majority of the companies responded that this was their Top Management, 63%, followed by customers 38%, and employees, 5%. While Top

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Management initiation may be somewhat expected in small companies as are SMEs, the fact that in 38% of the companies it was customers asking for ISO certification once more underlines the heavy dependence many SMEs often have on their largest customers.¹ Most of the respondents, 60%, left the implementation up to a specialised quality department. 15% stated that it was a particular division that had implemented the quality management system, such as production or logistics, and only 13% of the respondents said that all divisions were implicated in the implementation. This is quite alarming, for this could mean that quality is seen by most of the companies as something that “customers ask for”, and the SME then finds somebody within the company to take care of it. In this case, the company is by far not reaping the full benefits a quality-oriented approach could bring about for the development of their respective companies.

The questionnaire then goes on to ask a question of capital importance. Of the companies that are ISO-certified and therefore should be quality-savvy, how many actually have heard of EFQM? This question is similar to the very first one, only that here specifically the ISO-certified companies are being asked. In fact, of the 60 ISO-certified companies, only ten actually knew the EFQM model for Business Excellence to its full extent. 27 others said they knew it to some extent, and 21 even said they did not know it at all. This result can be seen from two perspectives. On the one hand, it means that the EFQM has obviously not yet attained the same market penetration that ISO has. But on the other hand, quite a few companies have heard of EFQM (37), and most of these companies made very positive remarks about the model. The majority of companies that haven't heard of EFQM amounts to a considerable market potential available for the EFQM Model of Excellence: while the ISO 9000 market has become more or less saturated, the EFQM market is still wide open. That is, if SMEs find EFQM interesting for their quality needs. To find this out, one possibility would be to simply ask the companies if they thought EFQM could be the solution to their needs. Unfortunately however, the knowledge of what EFQM actually is and how it is implemented is so low that this question would not make any sense. Therefore, the questionnaire takes an indirect path and tries to find out to which extent the company has gone towards a total quality approach. A total quality approach according to the EFQM Model of Excellence would include measuring customer satisfaction, company results, leadership, processes, and even impact on society. If the company is indeed going towards Total Quality Management, the company will (among other things) therefore have a continuous improvement process and regularly conducted satisfaction inquiries. In this case, the EFQM Model of Excellence can definitely help and there is probably a market for an IT-based tool such as GOA-EFQM.²

The next question thus asks whether or not the company follows a continuous improvement (CI) process. In fact, most do. 55% of the respondents say they have a CI process fully operational, and a further 30% believe to have one partially implemented. Of these companies, 41% systematically plan, execute and revise the process, and another 54% do so at least partially. This means that a vast majority has a CI process implemented, at least partially, and that they are careful to carry this process out well. This seems like a very fertile ground for a new model such as EFQM which brings more structure and transparency to this CI process. Almost 6% of the companies that have a CI process stated that it was already based on the EFQM Model of Excellence, and another 13,7% use some elements of the EFQM Model for their process. It seems that EFQM is not doing so bad after all at communicating the virtues of its model of Business Excellence. This is quite encouraging for the consortium because it means that the ISO-certified SMEs seem to be open to this model, but might be having problems at making it work for them. After all,

¹ In Austria, it was almost exclusively Top Management that initiated the implementation. This may mean that the Austrian SMEs are less dependent on large customers.

² This does however not mean that companies that do not have a total quality approach implemented would not be interested in EFQM and an IT-based tool.

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of the 64% that said their CI process was not at all based on the EFQM model, this was perhaps mostly due to their lack of knowledge concerning the model. Since it is based on a lot of common sense and simply structures it in a comprehensive manner, like a checklist of things to keep in mind, it is very well possible that all of the companies working with a CI process might be interested in implementing EFQM once they know what it is. However, and this was made clear between the questions to all of the auditors, the benefit the SME can get out of an EFQM implementation must be *much higher* than the effort and cost necessary to put it to work. Help from the IT side to automate certain tasks involved with EFQM implementation just might be the trick needed to get the SMEs to “play the game”.

The next set of questions collects information on how often the ISO-certified companies carried out inquiries related to quality management. Over 80% said they did so regularly, with over 70% of these companies carrying out both customer and employee satisfaction inquiries. 26% of these companies did only customer inquiries, and 12% did only employee inquiries. Some of the companies also carried out other inquiries as defined by their respective quality management systems, such as supplier inquiries. A large majority carried out customer satisfaction inquiries annually (71%), or even every 6 months (28%). Employee satisfaction inquiries were carried out in similar frequency: 78% annually and 18% every 6 months.

The next questions were targeted at finding out whether or not IT-based tools have a market potential at the SMEs. Almost all of the companies carry out their inquiries using classic methods: 63% do so by mail, 22% by phone, and 44% personally. Only 6% do so by electronic mail. This means that practically *all* of the respondents have to re-type the results they get from their surveys into a database before the results can be calculated. A considerable market potential in an environment as are SMEs in which everybody has to be very efficient. Indeed, most of the companies (82%) use Microsoft Office programs such as Excel or Access to analyse their data. Only 16% use special survey software and only 12% use statistical analysis software such as SPSS. However, the majority of the respondents thinks that specific software would be helpful (48%) or even very helpful (25%) for their inquiries. What is more, 50% of the respondents think that a special software would be helpful for the analysis of their data, 28% even think it would be very helpful.

With these good prospects for the commercialisation of GOA-EFQM once the TQM-Net project is completed, the last questions to the ISO-certified companies concern the support the companies would be prepared to accept in implementing the EFQM Model of Excellence. First of all, the respondents were asked how often they carried out quality-related training courses, and who attended them. 78% of them said they did so annually or as needed, and 10% even did so every six months. While only 43% of the companies saw their Top Management attending these courses, 74% had their middle management being trained and 87% of the companies said that simple employees were being trained in quality matters. Quite a few of them even used Computer Based Training or other IT-based tools to train their people (23%). In Austria, the situation was somewhat different: it was mostly the co-workers that were sent to courses.

I.4 Further Observations

Apart from the answers the surveyed companies gave directly in reference to the questionnaire, a lot of interesting information could be gathered “between the lines” concerning the current situation in SMEs regarding quality management.

The most important revelation was probably that almost without exception, quality was regarded as an important, if not crucial element for the development or even survival of each SME. This of course also has to do with the fact that if an SME were not interested at all in quality matters, it probably would not have responded to the survey. However, an interesting observation is that many SMEs *choose* not to get

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ISO certification, but still state that they are very quality-conscious. Obviously, ISO is not the only way for an SME to approach quality.

The companies that choose not to get ISO certification usually bring forward the high costs, in money, but especially in bound human resources, associated with the certification process. High costs, but with an insufficient pay-off. For many SMEs, an ISO certification as such simply is not a competitive advantage: their customers could not care less if they have the ISO “stamp” or not, all they care about is the product and service quality they get from the SME. These SMEs obviously have found other ways than ISO to “prove” to their customers that they are trustworthy and that their products will meet their expectations. It is even possible that these companies are further down the road towards “total quality” than their counterparts that have ISO certification.

Companies that were ISO-certified frequently stated that the effort involved had been considerable, and that they were not at all convinced that it had been worthwhile. Indeed, many of them had been forced to get certification because their customers had demanded it. But apart from this fact that they would not have gotten further business without the certification, they do not necessarily see the payback of the ISO implementation as sufficient.

In this context, quite a few companies manifested their interest in the EFQM Model of Excellence since it seems to be an alternative to ISO, and very much based on the philosophy of Total Quality Management. The SMEs stated that EFQM would be interesting to them if it could support their efforts towards better quality, and *if* this could not only be done without the heavy procedures required in an ISO 9000 approach, but also have an immediate effect on the performance of the organization. Simply put, the benefit coming from the implementation of the EFQM Model of Excellence must be *much higher* than the effort put into it, otherwise EFQM would be just another management fad that the SMEs would patiently let pass while concentrating themselves on whatever they consider their “real business”.

However, in discussions concerning the basics of EFQM and how to implement it, the EFQM Model of Excellence did not look like the answer to these requirements. Although the model seemed to be based on a lot of common sense and was attractively structured, it turned out that the questions asked in conjunction with EFQM scoring not only overwhelmed the SMEs because of their sheer number, but also that these questions were quite difficult to interpret. Also, since very few of the interviewed companies were planning to apply for a national quality award, this attribute of the EFQM Model of Excellence hardly appealed to them.³ Even though many found it attractive that the EFQM Model allowed them to benchmark themselves with competitors, they said that this alone would not suffice for them to go through the effort of implementation.

I.5 Conclusions

Market Opportunity

The good news coming from this analysis is that obviously SMEs are much more quality-conscious than the numbers suggest. Even if many SMEs are not ISO-certified, this does not mean that they do not care about quality. On the contrary, there seems to be a large interest for quality-related matters in these SMEs, and at that an interest that has not necessarily been met by the prominent ISO series of quality norms. For many SMEs, ISO is not the answer to their quality management needs, and they are looking for an alternative.

³ This was different in the sample of the Basque Country: the Basque government is going to great lengths to promote quality and has established an EFQM-based Basque Quality Award. Therefore, many companies of the GAIA sample, especially those associated with the Mondragón group, have applied for an EFQM-based quality award.

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A priori, the EFQM model seems to be a perfect answer to this obvious market need. Indeed, an article that appeared in the Basque newspaper “El Diario Vasco” on 15 May 2000 indicates that 20% of those companies that are discontinuing the implementation process of ISO 9000 are now going for EFQM. EFQM is not as “hard” as ISO as it can be scaled and adapted much easier to a particular company, and because there is no actual certification process involved. With EFQM, the only party the company really has to demonstrate that it has its quality under control is their own personnel and their own customers. The company can therefore only “lie” to itself. And the goal is not to reach a certification for its own sake, but to excel in Total Quality with the objective of establishing efficient processes and having satisfied, motivated and well-trained employees, both of which lead to satisfied customers and ultimately to long-term profitability. Following the EFQM Model of Excellence, quality is not done for quality’s sake, but for the sake of the company.

SMEs sensitive to Benefit-Effort Ratio

So far so good, but what SMEs are particularly concerned about is efficiency. Since they do not have any large staff they can put on long-haul activities, the implementation of a methodology such as EFQM has to be taken over by people that are missed elsewhere. Because of their limited resources, SMEs are obliged to get results out of the actions they carry out quickly and reliably. They can simply not afford to toy around with a new management fad, and so the benefits out of using EFQM not only have to outweigh the effort put into it, but must do so quickly.

There are two basic ways of making sure the benefit of an EFQM implementation is higher than its effort. The first one is to make sure the most is made out of EFQM’s potential. To a large extent, this depends on the company itself and especially the quality management consultant they have chosen to follow the EFQM introduction. The second way is working on the effort side of the implementation. This is the alternative followed by the TQM-Net project through its use of an IT-based tool to lower the effort involved with collecting and analysing data.

Using IT to Produce a Positive Benefit-Effort Ratio

The basic idea of using an IT-based tool certainly makes sense after the results of the present analysis. Most companies are carrying out analyses regularly, and practically none of them are using specialised tools to support or even automate the process of data collection and analysis. Moreover, most of the companies are actually convinced such a software would be helpful for the collection of data and for its analysis. However, it should not be forgotten that to get a software tool really used in a company, especially in an SME, it must be extremely simple to use. This is the point where the prototype version of the GOA-EFQM tool particularly appealed to the SMEs. Its interface looked quite simple to use, albeit the fact that it would take some getting used to it. The approach chosen by the TQM-Net consortium to have a quality management professional demonstrate the use of the tool during the initial implementation of the model, and then have a person in each company trained in the use of the software for subsequent analyses obviously pleased the surveyed companies. A large majority of the surveyed companies said they would be very interested indeed to participate in the second phase of the TQM-Net project and test the EFQM Model of Excellence and the GOA-EFQM software to see if it helps them proceed towards their quality management goals.

The use of quality management professionals during the Field Implementation (WP 6) was confirmed by an obvious need of the SMEs to have a certain amount of industry adaptation done even before the set of questions is adapted to the company itself. Particularly companies in the food-stuff industry made it quite clear that a specialized and simplified set of questions for the EFQM scoring process would be absolutely crucial for the implementation of this Excellence Model. The possibility of being able to set up different

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sets of questions, and then adapt these questions further to correspond with the specific situation of the company is precisely one of the major advantages of the GOA-EFQM package. This kind of adaptation can however be done only at the local level by quality experts that know the respective industry. Since the TQM-Net has set up these local partners and the quality experts to go along with it, the necessary boundary conditions for a successful implementation of the EFQM model and the GOA software seem to be established.

Potential of GOA-EFQM

In sum, the market potential for the EFQM Model of Excellence and the GOA-EFQM tool is substantial, not only in ISO-certified companies, but also in non-certified companies. The non-certified companies might adopt the EFQM methodology as an alternative to ISO with which they may reap the advantages of Total Quality without going through the rigidity of ISO. The GOA-EFQM software could help them make the implementation process so simple and little time-consuming that unlike ISO, EFQM will be a profitable investment to the company.

The ISO-certified companies are generally interested in the EFQM model because it gives them a possibility to benchmark their progress towards real (total) quality. Using the GOA-EFQM software will make the introduction of EFQM much more structured and less time consuming. It might also help them carry out their current employee and customer surveys more efficiently through new technology for easy data collection and automated analysis. The database included in the software can also help them add new questions to their surveys they otherwise might not have thought of.