

Vidal Vázquez, Estrella; Martínez Carballo, Manuel

## Article

# The efqm excellence model in the autonomus region of galicia (spain) put to the test

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## **The efqm excellence model in the autonomus region of galicia (spain) put to the test**

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### **ABSTRACT**

Business Excellence Models are strategic tools that constitute the most evolved stage in the progress of the quality and proper management the principles which it is based favors the achievement of greater flexibility and swift response in organizations. Based on this assumption, the aim of this study is focused on performing an analysis of the implementation of Total Quality Management through the European Excellence Model on companies of the Autonomous Region of Galicia (Spain). Therefore, first of all, we deal with the management principles on which sits Total Quality Management and discusses its role as a competitive strategy in organizations. Afterwards, we analyze the EFQM Excellence Model as the basis of this research, and finally we summarize the results, which show how leadership and key results are best managed categories, while people results and society results represent areas of improvement in Galician entities that should be improved on their way to excellence.

**KEY-WORDS:** Quality, Total Quality, EFQM, Excellence

### **1. Introduction**

From the beginning of the 20<sup>th</sup> century up to the present, quality and its management has progressed substantially parallel to the evolution of the different forms it is understood, which has led to the emergence of the various management approaches (Escrig, 2010).

Total Quality Management (TQM) represents the final stage of this evolutionary process, which has been preceded by the phases of inspection and control -oriented to ensure product quality- and the stage of assurance/quality management -based on achieving customer satisfaction-.

TQM, represents a global philosophy based on key principles or critical factors that comprise all the areas within an organization, and according to Kanji (1998), when properly managed, they improve competitiveness and business excellence. The importance given to these basic principles is illustrated by the numerous investigations carried out, which have resulted in extensive literature, where we can notice how each author considers some principles or



others as essential for effective development of TQM, thus varying the number of factors from seven to a maximum of twenty five. The first research was carried out by Saraph et al. (1998) followed then, amongst others, by Schonberger (1992), Porter and Parker (1993), Kanji and Asher (1993), Tamimi (1995), Ahire et al. (1996a,b), Leal (1997), Boaden (1997), Easton and Jarrel (1998), Quazi et al. (1998), Dow et al. (1999), Najmi and Kehoe (2000), Anthony et al. (2002), Sila and Ebrahimour (2002) or Martinez and Martinez (2004).

According to Alvarez et al. (2012), these critical principles are the result not only of the extensive empirical research carried out on the TQM field, but also of the contributions of the masters in quality such as Crosby (1979), Deming (1982, 1986), Ikishawa (1985), Juran (1988) and Feigenbaum (1991), as well as the principles of the TQM Models that have appeared (Deming, Baldrige, European, Latin American...).

As a result of the analysis of the existing literature, under the characteristics of the current environment, and taking into account the fundamental principles of the European Model presented in the third section of this paper, we consider eight key factors which TQM should be based on, and which are summarized below:

*Customer orientation* is a fundamental requirement for companies to obtain long term success, since excellence lies in the ongoing creation of customer value (Ferrando and Granero, 2008). Customer orientation philosophy is based on the fact that all the processes and activities related to quality carried out in that organization are developed with the aim of promoting the creation of added value to this stakeholder, without forgetting its consistency with the strategy, vision and values of the organization. Companies that want to be competitive are required to meet and even anticipate the needs and expectations of its customers, integrating those needs and expectations into the design of their new products or services.

Another key factor is *leadership and leader commitment*, thus authors such as Ebrahimpour (1988), Udaondo (1992) or Flynn et al. (1994), consider it impossible to carry out a successful implementation if TQM in organizations without the strong commitment of the directing board, since the change of culture it implies is impossible without their support (Hill, 1991). Besides, the directing board is responsible for managing the implementation process, starting by establishing the values and goals to achieve it (Ebrahimpour, 1988) and committing through the provision of the required resources (Ham and Williams, 1986).

*People* are the main asset of excellent companies (Ferrando and Granero, 2008) and their importance and role in organizations which are committed to total quality management have changed substantially regarding the "traditional administration based on Taylor's ideas" (Miranda et al., 2007), for the direction and management of people oriented to TQM is based on the philosophy of teamwork in every area and levels of activity in the organization, as well as on commitment, participation, loyalty and continuous learning of human resources.

The *Process Management* principle is based on the fact that the desired results are achieved more efficiently if all the activities and resources related to quality are organized as a process. As stated by Escrig (1998) for proper process management, organizations should have as a starting point, with a well documented quality management system, such as that of the ISO 9001 rule. According to Hayes and Abernathy (1981) processes are as valuable as the product itself for the company.

*Continuous improvement or continuous learning process* is based upon the PDCA cycle (Plan-Do-Check-Act) and constitutes a systematic learning process which can be applied to any aspect of the organization in a constant, ongoing manner. Organizations must be able to learn constantly from their own activities and results so as to recognize the improvement opportunities that may appear (Ferrando and Granero, 2008).

Therefore, we cannot ignore *the development of partnership and the cooperation with suppliers and customers*, since it encourages the creation of value, not just for the company, but also for suppliers, increasing flexibility and speed in the joint responses to the possible changes in the market or in the customers' needs and expectations. These partnerships are based on trust and mutual respect between two parts that walk together towards a common profit aiming at achieving added value for the customer.

*The result orientation* or focus refers to the need for analyzing and evaluating the results obtained, which will allow organizations to check if they meet the objectives set by the leaders, as well as, to set the basis for the continuous improvement previously described. Result orientation must be coherent and should be aligned with the strategically objectives of the organization in the pursue of ongoing sustainability.

Finally, the *principle of organizational culture oriented to total quality*. Organizational culture lies under every function and action carried out, that is, it determines how the organization works and it is reflected in the implementation of strategies, systems and organizational structure. Specifically, the cultural principles related to TQM (which have been previously described) are a result of the values and foundations necessary for its achievement. The change in organizational culture must count on the motivation and implication of all the members of the company regarding TQM principles (Ikishawa, 1985), including the directing board, aligning them all with

the management process through continuous learning and training in quality matters, establishing organizational processes that allow the creation of improvement groups (Olea, 1995).

## 2. TQM as an organizational competitive strategy

It is obvious that from the 1980s up to the present moment, companies have gone through remarkable changes not only in their organization, but also in their planning systems mainly due to quality. The economic context in which companies develop their activity nowadays, is the result of the permanent evolution based on the rising trend towards market globalization -as a result of the expansion of international trade and an increase in the homogenization of the demand- (Canals, 1991), the increased competitiveness in every sector, and the speed in technological innovation, based on the introduction of innovative processes -which entail constant changes in work processes- that satisfy the ever growing customers' needs.

This new reality organizations encounter, forces them to take two different ways: a dynamic reaction to these changes by innovating and adapting so as to achieve their objectives; or a passive one, which will cause medium-long term loss of competitiveness (De Pablo, 1986). Any change in the market, represents an obvious opportunity to improve its position comparing to that of its main competitors, thus taking advantage, which allows improving its productivity and, its profitability as a consequence.

Authors such as Garvin (1988), Beholav (1993), Tummala and Tang (1996), Stahl and Grisby (1997) or Kia (1997) among others, state that Total Quality Management systems allow to set within organizations ongoing, non transferable competitive advantages, which will evolve along with the market, since they influence not only the operational processes, but also the managerial processes of the organization.

Organizations that include the TQM approach within their basic strategy so as to improve their competitive position, can integrate it through two generic perspectives distinctly different (Porter, 1980) which can be used both individually and together: the low total cost leadership, that is, to supply the same product at a lower price (internal competitive advantage); or the differentiation, by supplying a distinguished product that satisfies customers -external competitive advantage- (Miranda et al., 2007).

According to Porter (1995), it is necessary to choose one strategy or the other, because the implementation of both of them can prevent the organization from achieving successfully any of its goals, thus ending in clear disadvantage regarding its competitors due to the lack of competitive advantages.

Nevertheless, Miller and Friesen (1986), Hill (1988), Miller (1992), Belohlav (1993) or Wright et al. (1994), consider that there are enough empirical evidence to prove that it is possible to combine both strategies and achieve satisfactory results, since getting a competitive advantage in differentiation can imply an increase in the demand, which would allow to efficiently exploit the impact on the economies of the scale, in order to reduce costs; or else, cost leadership may allow the organization to reinvest great part of the profit in activities that improve the attributes of the product, therefore improving its competitive position in differentiation.

Finally, Grandío (1997) mentions that, in most cases, market leadership is reached by a company that is able to achieve an adequate differentiation at an acceptable cost in its sector, which consists in moving between these two strategies, or what he calls "innovation".

## 3. The integrating spirit of the EFQM Excellence Model

The European Foundation for Quality Management (EFQM) is born in 1988, hand in hand with the presidents of fourteen important European companies<sup>1</sup> from the industrial and services sectors, as a nonprofit organization aiming at boosting the position of the European enterprises within worldwide markets (Muñoz Machado, 1999; Membrado, 2003; Cilla, 2004; Hakes, 2007; Rueda, 2008; Alcalde, 2010).

The first version of the EFQM Model was published in 1991 and it was written on the basis of TQM principles and the Malcolm Baldrige Model from the USA and Deming from Japan (Ugalde, 1995; Counwenberg et al., 1997; Huidobro, 1998; Maderuelo, 2002) with the participation of three hundred experts in quality from all over Europe. It

<sup>1</sup> Bosch, British Telecom, Bull, Ciba-Geigy, Dassault, Electrolux, Fiat, KLM, Nestlé, Olivetti, Philips, Renault, Sulzer and Volkswagen.

was that same year when the European Quality Award (EQA) was launched within the frame of the Quality Management European Forum held in Paris. It has been supported by the European Commission and the European Organization for Quality (EAQ) from the beginning, and, taking as a basis the new born EFQM Model, it is given to those organizations which have a total quality management system based on continuous improvement and which show excellent ongoing results (EFQM, 1994; Sangüesa et al., 2006). The EQA was granted for the first time in 1992 and it is currently divided into four categories according to the size (SME or large scale enterprise) and the sector of the company -private or public- (Rubio et al., 2011).

Some years after the implementation of the Model in European Organizations regardless their sector, in 1994 it was detected that the Model had been focusing on large scale enterprises, thus arising the need for new versions oriented towards the public sector (education, health care,...) and to SME. With this purpose, the EFQM in collaboration with its National Partner Organizations (NPOs) -which in Spain is the Excellence in Management Club- and the EOQ created a working group for the public sector, which published the adapted version in 1995 after working for a year. The adaptation of the model to SMEs<sup>2</sup> was published two years later, at the end of 1996, with the help of the Spanish Quality Association -AEC- (Pérez, 1997, 1998).

In April 1999, the first revision of the model was published and a change was made to its name, since the word business was suppressed because it implied that the model could only be applied to organizations of this kind and some changes were also made to the names of the criteria, highlighting the importance of innovation and training, and emphasizing the continuous improvement through the introduction of the RADAR<sup>3</sup> concept.

In the beginning of 2003, the EFQM was already made up of 800 member companies from 38 countries, most of them European and related to various sectors of activity. In this same year, a new version of the model is published. It brings "minor" modifications comparing the previous one, since the main changes are found in definitions and additional support material, which aims at clarifying and defining more precisely the concepts. Therefore, it did not take a great effort for the organizations that were already working according to the previous model.

The EFQM 2010 Model was published during the Annual EFQM Forum, in September 2009. The need for the updating was a consequence of the visits and interviews to the members and assessors of the Institution, and was meant as an answer to the changes in the environment of organizations worldwide. This new version simplified the model and adapted it to the current challenges of organizations following a trend of innovation, risk management and creativity. Likewise, it got more practical so as to be used by any kind of organization, even nonprofit ones, using a language targeted to managers, not just to experts in the model (EFQM, 2009, 2010).

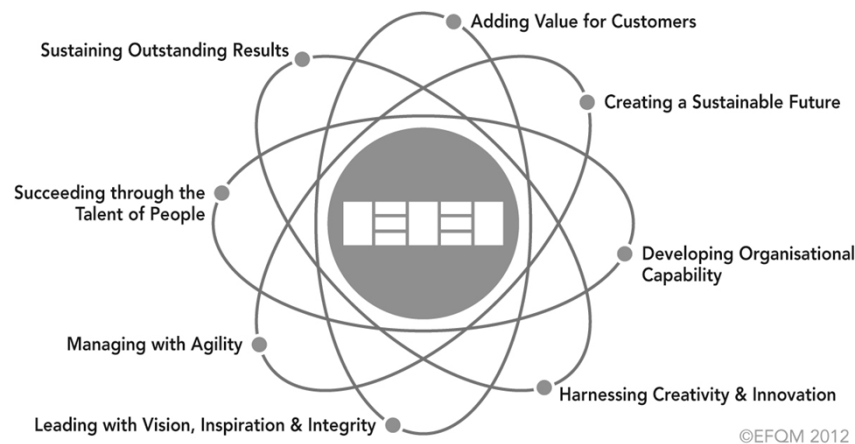
The EFQM Model 2013 is the latest revision of the model, and reflects the need for the transition to a disciplinary corporate culture to a more agile and flexible one, emphasizing key aspects such as sustainability, flexibility or the relevance of society as a very influential "stakeholder".

The EFQM itself define the Model as a "practical, non prescriptive instrument" (EFQM, 2012) that conveys an integrating global vision of the organization, encouraging ongoing success through its three defining components: fundamental excellence concepts (figure 1), which represent the essential attributes needed for ongoing excellence; the Model itself, that is the conceptual frame for the implementation of the fundamental principles and the RADAR logical diagram, for the analysis and assessment of the organization's performance, and the foundations of the EFQM Excellence Award scoring system.

<sup>2</sup> Nevertheless, there is just one model despite it has three versions: general organizations version, SME version, public sector and nonprofit organizations version.

<sup>3</sup> The acronym RADAR stands for: Results, goals achieved; Approach, each criterion made by the organization; Deployment, implementation (how and what) of the approach in the organization; Assessment, analysis of the available information and elaboration of an excellence criterion in management; and, lastly, Revision, implementation of improvements based on the outcome of the assessment. RADAR coincides with the stages of the PDCA cycle.

**Fig. 1: The Fundamental Concepts of Excellence**

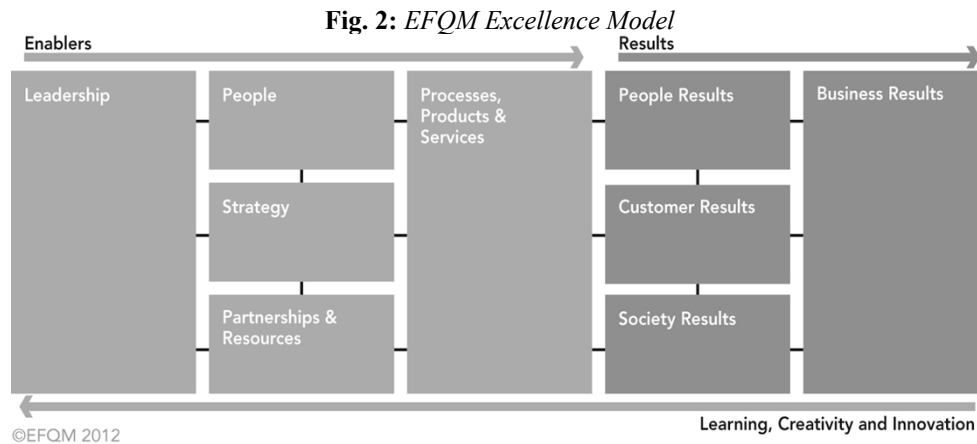


Source: EFQM (2012)

The Model is a non prescriptive frame composed of nine main criteria which, in turn, split into sub-criteria that can be used individually or joined together and that are assessed and weighed according to the relative importance established by the European Quality Management Foundation itself, giving up to a maximum score each of them, so that the organization can determine the progress to excellence through self assessment.

The nine criteria are divided into two groups: enablers (leadership; people; strategy; partnerships and resources; processes, products and services) and results (people results; customers' results; society results and business results). Enablers comprise all the management areas in the organization, that is to say, they refer to the manner the organization acts (what it does and how it is done), while the results criteria deal with what the organization achieves and how it is achieved, being a consequence of the enablers and reflecting the goals achieved regarding the stakeholders (customers, workforce and society) and the strategic or core purpose (Ferrando and Granero, 2008; Rubio et al., 2011).

The dynamic nature of this Excellence Model is clearly shown in figure 2, where we can see how training, innovation and creativity enhance the work of the enablers thus improving the results. The premise lying underneath the EFQM Model is that excellent results in the four management aspects -customers, people, society and key results- are closely related to leadership; the quality of the strategy and its deployment through people; partnerships and resources; processes, products and services (Rivera, 2010; EFQM, 2010).



Source: EFQM (2012)

The integration of the fundamental concepts in the criteria shown in figure 3, where we can observe links between each principle and each enablers (not considered outcome result criteria, because enablers are action-oriented).

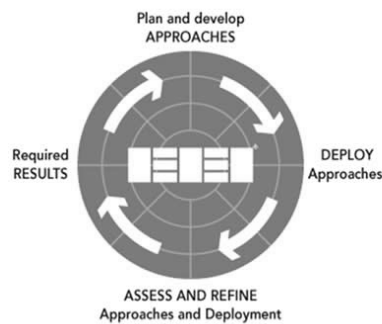
**Fig. 3: Integration of the fundamental concepts in the enablers**

Criteria	Leadership					Strategy					People					Partnerships & Resources					Processes, Products & Services				
Sub-criteria	a	b	c	d	e	a	b	c	d	e	a	b	c	d	e	a	b	c	d	e	a	b	c	d	e
Adding Value for Customers																									
Creating a Sustainable Future																									
Developing Organizational Capability																									
Harnessing Creativity & Innovation																									
Leading with Vision, Inspiration & Integrity																									
Managing with Agility																									
Succeeding through the Talent of People																									
Sustaining Outstanding Results																									

Source: EFQM (2012)

The last section deals with the RADAR logical diagram, which is a tool for the evaluation of the organizational performance which can be used by those entities which want to assess themselves or use the scoring for any activity related to benchmarking or any other matter (EFQM, 2010). As shown in figure 4, the RADAR logic is about setting the results aimed at; planning and developing the approach necessary to achieve those goals; deploying systematically these approaches to ensure their correct implementation and, lastly assessing, checking and perfecting the approaches deployed according to the surveillance and analysis of the results.

**Fig. 4:** *RADAR logical diagram*



*Source: EFQM (2012)*

To sum up, self assessment and self diagnosis involve a comprehensive, systematic and periodical analysis of the activities and results of an organization (although it can also be applied to an area or department) compared to the EFQM Model of Excellence, so as to identify its strengths and improvement, thus letting the directing board find the most relevant deficiencies that allow to implement reinforcement action plans and to boost the implication and engagement of the staff in quality and performance. (Ritchie and Dale, 2000 a,b).

## 4. Empirical Study

This section is devoted to describing the methodology as well as the results of the empirical study carried on in the Autonomous Region of Galicia (Spain), based on a global analysis of the implementation of the nine criteria of the EFQM Excellence Model and the fulfillment of the EFQM hypothesis: the results criteria are directly related to the enablers.

### 4.1. Methodology description

First of all, we create an ad- hoc database from the Quality Observatory of Galicia's database, which contains all the Galician companies that have the ISO certification (or similar) in force, which will allow us to determine the size of the population target of the study. Both premises are properly justified, as the Model can be used by any company, profit and non profit (EFQM, 2010) and the implementation certification of the ISO 9000 set of rules is a good way towards total quality through the EFQM Excellence Model (Askey and Dale, 1994; Bradley, 1994; Stephens, 1994; Tummala and Tang, 1996; Meegan and Taylor, 1997; Van der Wiele et al., 1997; Brown et al., 1998; Kanji, 1998; Baena, 1998; Mc Adam and Mc Keown, 1999; Freire et al., 2000).



Secondly, a survey regarding different aspects of the EFQM Model criteria (55 items) is elaborated and then e-mailed or posted to the 2184 organizations (3101 work centers) included in the database.

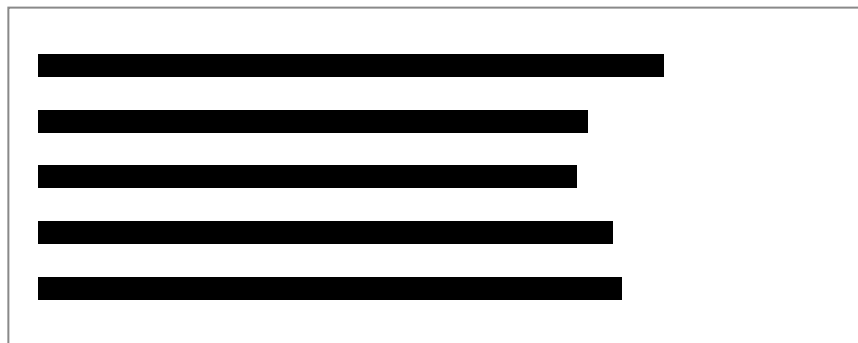
The questions in the survey form had to be rated by organizations on a scale from 1 (0%) to 5 (100%), where 1 meant “of little importance or not important at all” and 5 “very important or decisive”, similarly to the EFQM.

Lastly, we moved on to tabulate the outcome of the surveys correctly filled in by 130 organizations (349 work centers) to infer the results shown below.

## 4.2. Results

In the light of the results obtained in enablers (graphic 1), firstly, it stands out the limited dispersion among all the global results, since the difference between the best and the worst score is only 11 percentage points, which shows that the level of their management is very similar.

**Graphic 1:** *Global average score of the enablers*

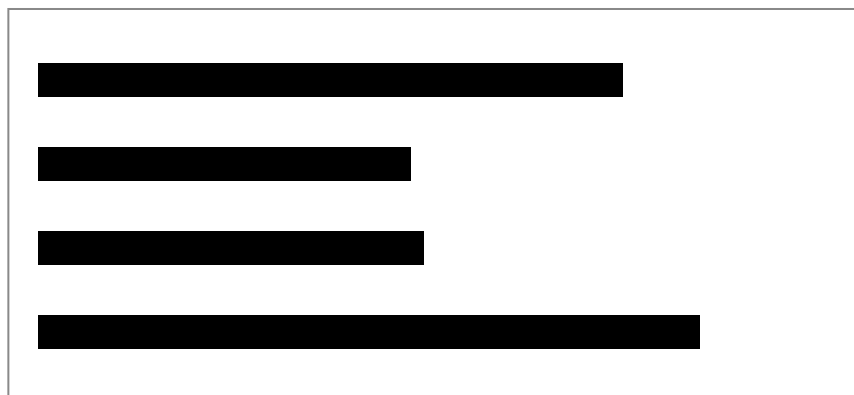


Leadership is the best managed category, proving that leaders support by example the actions aimed at implementing the culture of quality in the organization, by accepting these values and putting them into practice all over the organization through the correct management of internal communication.

The category that gets the lowest score is People (criterion number 3 in the Model). Organizations have to improve human resources management through surveys, periodical meetings with the staff, so that they realize that their opinion is taken into consideration by the directing board. It is also necessary to establish or to improve a system to reward and recognize their achievements and improvements.

Nevertheless, the overall behavior of the result criteria (graphic 2) differs considerably from what has been shown above, because there is a great dispersion between the best and the lowest score, of a 36% approximately.

**Graphic 2:** *Global average of the results criteria*



Key Results are the best managed category, not only among the results group, but of all the criteria evaluated, thus being an important strength. Galician organizations evaluate both financial-economic and non economic key results based on stakeholders (people, customers, society) and analyze their trend in the last three years, showing an improvement or an ongoing high performance.

The results of people and society show worse scores with very similar percentage (46.54% and 48.25% respectively), which implies great weaknesses in both of them, since the results of both stakeholders are not compared, or if it is done, the results are not positive and do not meet the goal set by the organization. Nevertheless, the height that Corporate Social Responsibility (CSR) has reached over the past years -based on a triple objective: economical feasibility, social benefit and environmental responsibility- and the close relationship with these criteria, can drastically change the situation for the companies that incorporate this new concept into their organizational culture.

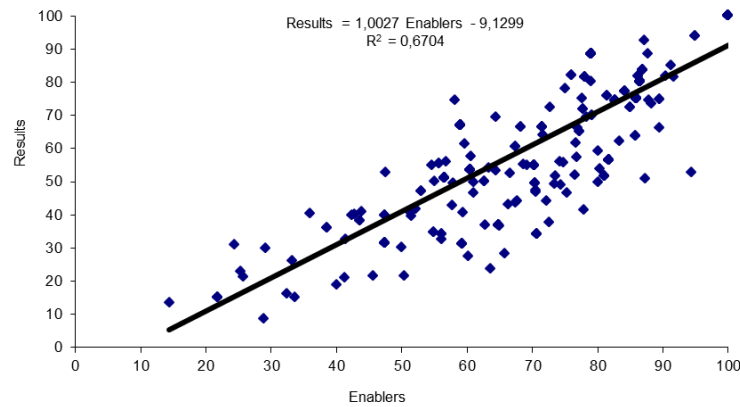
On the other hand, the fundamental hypothesis of the EFQM Excellence Model is based on the idea that excellent results in the four management areas -customers, workforce, society and key results- is directly related to leadership capacity, quality strategy and its deployment through people; partnerships and resources; processes, products and services (EFQM, 2010). Therefore, the results obtained by an organization should be the outcome of the enablers, so excellence in the enabling criteria leads unequivocally to excellence in results.

The analysis of this hypothesis has been carried out by representing the scores obtained regarding the enablers, on the one hand, and the results criteria on the other hand, because the assumption that the enablers cause the results, will imply a necessary correlation between the scoring of the two main sets of criteria of the European Model: although this correlation does not mean a causal relationship in itself, it is a necessary condition for its existence.

Graphic 3 shows the results obtained regarding the enablers as opposed to the result criteria within each one of the surveyed organizations on a scale ranging from 0 to 100%, where the correlation coefficient reaches a 0.82%, which supports the relationship between both groups. Besides, it also shows the linear regression line calculated by the least square method to evaluate the nine criteria, where the  $R^2$  parameter indicates that 67% of the variance of the results criteria are due to the variations of the enablers, whilst the 33% remaining are caused by any another reason. To sum up, it can be stated that Excellence in the enablers causes Excellence in the results criteria, thus fulfilling the theoretical hypothesis of the EFQM mentioned above.



**Graphic 3:** *Linear regression of the enablers versus results criteria*



$$\rho_{\text{Enablers,Results}} = \frac{\text{Cov}(\text{Enablers,Results})}{\sigma_{\text{Enablers}} \sigma_{\text{Results}}} = 0.82$$

**Chart 1:** *Improvement Action Plan (IAP)*

Criterion	Improvement Action	Easiness	Impact	Responsible	Deadline	...
<b>People Results</b>	1. Assess the staff's morale or satisfaction (work atmosphere, work conditions, motivation, promotion, training, etc.) from the outcome of the satisfaction surveys, periodical staff meetings or other similar tools	4	7			
	2. ....					
	3. ....					

## 5. Conclusions and future research lines

One of the main conclusions to be drawn from this study is the importance of Total Quality Management as a source of competitiveness in organizations, since it is a distinct tool in every area of the organization.

The results related to total quality management based on the EFQM Excellence Model in organizations with work centers in the Autonomous Region of Galicia, show, on the one hand, regarding the enablers that the issues related to people (criterion 3) are the relatively worst managed, and, on the other hand, that the people results and society results have the lowest score criteria regarding the group of results, which reveals obvious improvement areas to be worked on, to move forward on their way to Excellence.

Therefore, on this journey of continuous improvement, it becomes necessary to define a procedure that, once identified the weaknesses and strengths of the management regarding the nine criteria of the Model, allows the quality manager to use the strengths to fight the weaknesses. In this sense, we suggest the elaboration of an Improvement Action Plan (IAP) which will indicate the actions to be taken both to maintain the positive aspects, and specially to work on the weak points, as well as interrelating weaknesses and strengths to find a balance. An example of this IAP could be the one shown in Chart 1, where each improvement action requires to define how easy it is to implement (0, low; 10, high) and the impact of that action (0, low; 10, high) as well as further information as the person in charge, the resources needed, available staff, deadline,... The easiness level will depend on the complexity of its implementation, on the resources needed, the staff available, infrastructure,... its impact will depend directly on the result of its implementation, on how many weaknesses it will affect, if it involves a part or the whole organization,...

Parallel to this IAP it is also proposed the elaboration of a Corrective Action Priority Matrix which will reflect the previous results aiming at a quick visualization and which will be very helpful in organizing those actions into a hierarchy (Chart 2).

This task does not only correspond to the Quality Department, in fact, the collaboration of the departments involved in the improvement action (human resources, economic-financial ,...) is essential.

Therefore, the analysis carried out in this research, corroborates the hypothesis proposed by the EFQM and which is the basis lying underneath the European Excellence Model, which states that the result criteria depends largely on the enablers, so a correct management of the latter, will bring about improvements in the results.

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