



QUALITY MANAGEMENT OF OLYMPIC, NON-OLYMPIC AND PARALYMPIC SPORT FEDERATIONS

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ABSTRACT

Total Quality Management (TQM) is a strategic process of continuous improvement targeting success in sport with numerous additional benefits. Its application commenced in business, next in public administration and then in the third sector. Some researchers studied clubs but fewer researchers have studied federations. Consequently, the purpose of this article is to measure the TQM of a group of Galician Sport Federations. We used an adaptation of European Foundation of Quality Management (EFQM) questionnaire issued to Federations before this study. The sample was 50 of 59 entities (86.21%) divided in: 26 Olympic Federations (52%), 21 non-Olympic Federations (42%) and 3 Paralympic Federations (6%). The results of the questionnaire gave information about the TQM of the entity and which particular dimensions were managed poorly, regularly, well or very well. Whether they are Olympic, Paralympic or Non-Olympic, results show that all these Federations achieved a “good” score in Total Quality Management, with “very good” indications in dimensions such as Policy, Strategy and Process Management. The Olympic Federations returned “regular” results in the “People” category. Paralympic Federations generated “regular” scores in Leadership, Human Resources, Society Results and Process Results. Similar returns have been found in other studies. Knowledge of the overall TQM scores and the dimensions provides information regarding areas that require to be maintained, changed or developed. Based on the results of the questionnaire, practical beneficial recommendations could subsequently be readily and usefully implemented. We suggest that further researches could help to construct a TQM system for these organisations. Availability of such information would support and facilitate good management of these entities, thereby enabling improved management in all respects: effectiveness, efficiency, efficacy and economy.

Keywords: Third sector, TQM, Quality, Sport management, Effectiveness, EFQM.

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Contribution/ Originality

This study is one of very few studies which have investigated applying Quality in Sport Management Federations. It gives a questionnaire to evaluate the TQM of this type of entities, the description of the TQM of them and several useful ideas to further researches.

1. INTRODUCTION

The implementation of quality management systems started in the business, then in the public sector and, to a lesser extent, became evident in private non-profit (sports associations) sector. It is said that total quality management (TQM) is a necessity in the sport sector (De Knop *et al.*, 1992; Van Bottenburg *et al.*, 1997; De Knop and Buisman, 1999). It emerged in Japan, the USA and EEUU from the 1950's and 1960's, gaining increasing traction through to the present day. Originally TQM had been applied to the manufacturing of products in order to control the production process. Then, the orientation changed to guarantee quality in the management process. Subsequently, at the beginning of the XXIst Century, Quality has become a distinct dimension for managers to manage. Overall, there are different systems, techniques, models or ways to manage quality; these coexist and are complementary. The simplistic system seeks to eradicate poor quality, employing different strategies, while the complex version would represent a discrete system within the entity in order to manage both quality and entity itself (Dorado, 2006). The choice of system would depend upon the type and/or scale of entity and specific requirements. Nowadays TQM is a management strategy, a methodology that provides numerous benefits as detailed bibliographically (Sánchez, 2004; Dorado and Gallardo, 2005; Dorado, 2006; Senllé, 2006): commercial benefits, financial, technical or sporting for the entity, society, country and their internal and external customers (partners, users, athletes or the staff). In particular, it enables continuous improvement of the entity and indeed represents a key to the survival and success of the organizations over the time. Through the history of the quality management movement, several different schemes of accreditation and awards-based programmes have emerged, providing examples of good practice, benchmarking and defining standards for organisations to achieve.

In short, there are two principal approaches that define and explain quality management in sport: a) Quality Management based on the International Organization for Standardization rules (ISO, normalization) and b) Total Quality Management (TQM) based on different recognised quality management models, diagnosing the way in which the organisation is managed (certification).

The European Foundation of Quality Management Model (EFQM- Excellence Model) is the most widely used organisational framework in Europe (De Knop *et al.*, 2004). It is a management approach designed to achieve quality through the participation of all organisational members. It was introduced at the beginning of 1992 and is the basis for the majority of national and regional quality awards. This holistic model provides a mechanism for generating a qualitative score for management of the organization. In particular, it divides the different dimensions of the

management of the entity into inputs (agents) and outputs (results). Assessment of the detailed underlying indicators produces information about the strengths and weaknesses of the organisation. Knowing this, managers would clearly be in a position to recognise areas for improvement in pursuit of excellence.

The dimensions of the EFQM Model analysed in this article are those dimensions proposed by Belil and Vernis (1996) and Méndez (2010) for the Third Sector, and in particular for Sport Federations (figure 1). The Agents – Inputs are six: 1) Leadership, 2) Strategic planning, 3) Human resources management, 4) Process management, 5) Partnership and other resources and 6) Communication and transparency. The Results – Outputs are four: 7) People results, 8) Customer results, 9) Society impact and 10) Key results. In comparison with the original EFQM Model applied to the private or public sector, the quality management of the federations include the “Communication and Transparency” as an important dimensions for this type of entities.

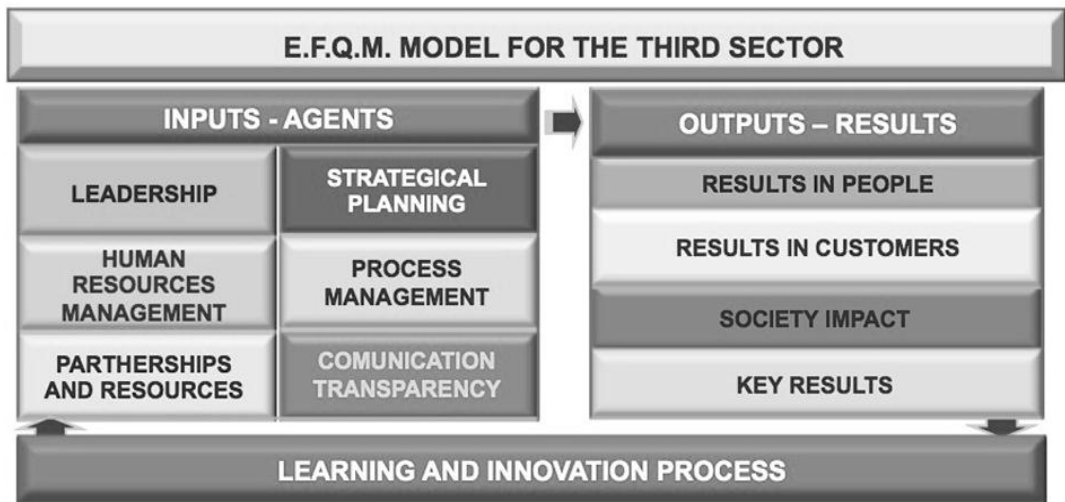


Figure-1. Dimensions of the European Foundation of Quality Management Model (EFQM) applied to the Third Sector

In general, the EFQM model applied to sport federations explains that: “Direction and leadership should lead and drive the policy and strategy of the entity. It will be possible with the management of the inputs (agents) of the organization: human resources, the development of services (activities), good partnerships, internal and external communication, transparency and other resources. If there is good “agents” management, the entity will achieve excellent results and overall performance, in particular good results in the outputs category: satisfaction of the people who work in the organization, the customers, society and enhanced key results (economic, sporting and other principal objectives,...)”

In this context, we found some articles related to TQM, applied to sport clubs (De Knop *et al.*, 2004; Koh-Tan, 2011; Abou, 2012) but fewer researches applied specifically to sport federations. Accordingly, the main objective of this article is to analyse TQM in sport federations under the perspective of the EFQM Model. Some references explained TQM in sport federations

according to the number of licences (Méndez, 2010) and in these cases it explains the presence of TQM in sport federations according to the type of federation: Olympic, Paralympic or Non-Olympic.

2. METHOD

2.1. Sample

Empirical research studied a sample of 50 of the 59 total regional Spanish Federations, focusing upon Galician Federations (86.21%). As represented in table number 1: 26 Olympic Federations (52%), 21 Non-Olympic Federations (42%) and 3 Paralympic Federations (6%).

Table-1. List of the Galician Federations

Type of Federation	Name of the Galician Federation
Paralympic Federations	Blind Sports (1), Intellectual disability (2) and Psychic disability (3).
Olympic Federations Summer	Football (4), Canoeing (5), Athletics (6), Basketball (7), Sailing (8), Judo (9), Tennis (10), Taekwondo (11), Swimming (12), Handball (13), Olympic Shooting (14), Equestrianism (15), Cycling (16), Volleyball (17), Badminton (18), Modern Pentathlon and Triathlon (19), Gymnastics (20), Remo (21), Olympic Wrestling (22), Hockey (23), Archery (24), Table Tennis (25), Weightlifting (26), Boxing (27), Fencing (28) and Baseball and Softball (29).
Olympic Winter Federations	Winter sports (30)
Non- Olympic Federations	Aviation (31), Chess (32), Billiard (33), Bowling (34), Hunting (35), "Comombicultura" – Pigeon (36), "Colombofilia" – Pigeon (37), Water Skiing (38), Football (39), Golf (40), Karate and Associate Sports (41), Kung Fu (42), Mountaineering and Climbing (43), Powerboating (44), Ball (45), Fishing (46), Pétanque (47), Rugby (48), Life-Saving (49), Squash (50), Surfing (51), Diving (52), Motoring (53), Speleology (54), "Llave" (55), Motorcycle (56), Skating (57) and Clay Pigeon Shooting (58), Pádel (59)

Nine federations did not respond (diving, racing, skating, baseball and softball, caving, "Llave", motorcycling, skeet shooting). The reasons were that managers were inaccessible, insufficient time for President or managers to meet the investigator and a refusal to answer the questionnaire.

2.2. The Instrument

The instrument used to collect data was a questionnaire created specifically for this study: The Assessment Questionnaire for quality management applied to Sports Federations (QMSF). It was based on the model of the European Foundation for Quality Management (EFQM) questionnaire.

In summary, the QMSF included fifty indicators related to the ten dimensions of the EFQM Model. For each indicator the questionnaire has one question with four types of answers: 1 = it is done, 2 = it is done partially, 3 = it is not done; 4 = I do not know how to answer or I do not wish to answer this question.

Table-2. Number of dimensions, indicators and questions of the QMSF questionnaire

Dimensions		Indicators and Questions
Agents Inputs	Dimension 1. Leadership	Indicators 1 to 4 (4 questions)
	Dimension 2. Planning	Indicators 5 to 9 (5 questions)
	Dimension 3. Human resources	Indicators 10 to 14 (5 questions)
	Dimension 4. Services	Indicators 15 to 18 (4 questions)
	Dimension 5. Resources	Indicators 19 to 23 (5 questions)
	Dimension 6. Communication	Indicators 24 to 25 (2 questions)
Results Outputs	Dimension 7. People results	Indicators 26 to 29 (4 questions)
	Dimension 8. Process results	Indicators 30 to 34 (5 questions)
	Dimension 9. Society results	Indicators 35 to 38 (4 questions)
	Dimension 10. Key results	Indicators 39 to 50 (12 questions)
Total: 12 dimensions, 50 Indicators and 50 questions		

The questionnaire was constructed according to various different bibliographical references (Marqués, 2003; Sánchez, 2004; Senllé *et al.*, 2004; U.C.U.A, 2004; Ferrando Sánchez and Granero, 2005; Martínez and Riopérez, 2005; Dorado, 2006; García De Elías, 2006; Redondo *et al.*, 2006).

Further details regarding the questionnaire are explained in Méndez (2010); the psychometric characteristics of the questionnaire are outlined in Méndez *et al.* (2014).

The assessment of the total results of the questionnaire determined the score of the Quality Management of the Federation (TQM). This score was equivalent to the sum of the scores of the fifty questions – possibly between 0.00 and 50.00 points, categorised as follows:

- a) Less than 12.50 points the quality management of the federation is poor;
- b) Between 12.50 and 25.00 the quality management of the federation is fair;
- c) Between 25.01 and 37.5 the quality management of the federation is good;
- d) Over 37.5 the quality management of the federation is very good.

Aside from the total result of the QMSF questionnaire, the assessment indicated partial scores for the twelve underlying dimensions of the EFQM Model, the Inputs (agents) and Outputs (results) and the ten component dimensions of Quality Management of the Federation. The score of these dimensions may lie between 0.00 and 1.00 points, meaning:

- a) Less than 0.26 points the quality management of the dimension is poor;
- b) Between 0.26 and 0.51 the quality management of the dimension is fair;
- c) Between 0.51 and 0.75 the quality management of the dimension is good;
- d) Over 0.75 the quality management of the dimension is very good.

2.3. The Data Collection Process and Data Analysis

The method of data collection steps were (figure 2):

- a) Obtaining data registry federations Public Administration (Dirección Xeral Para o Deporte de Galicia, 2009; Secretaría Xeral Para o Deporte, 2009)
- b) Telephone call to each federation requesting an interview with the president or his delegate or questionnaire sent via e-mail or post card.

- c) Conducting interviews.
- d) Receipt of the questionnaires.
- e) Analysis of the questionnaires obtained with the statistical program SPSS 17.00.

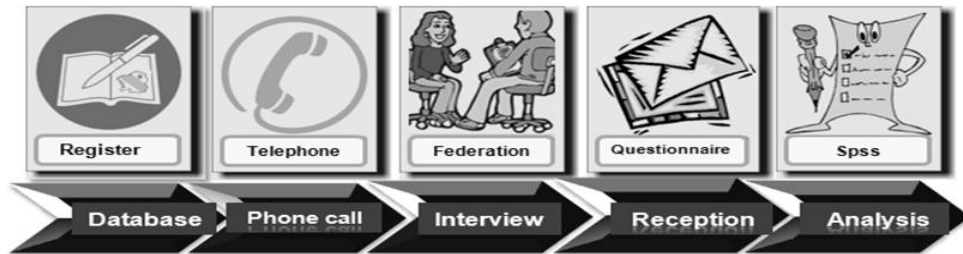


Figure-2. Data collection process

The data analysis was made with the SPSS 17.00 statistic programme and it consists of a descriptive analysis for the total of the federations and for each group of federations (Olympic, Non-Olympic and Paralympic).

In particular, the assessment of the questionnaire gave an interpretation for each dimension and the total quality management of the federation according to:

- a) Poor results, meaning some indicators and dimensions do not exist or have very low scores. Recommendations in such cases would be to review the position because the federation is very far from a satisfactory Quality Management standard;
- b) Regular results indicate that although the federation is on its way towards TQM there are some negative points that it would be important to consider and take action to improve;
- c) Good results confirm that progress towards TQM is positive. Because some indicators may be in a “medium” situation, it would be important to maintain the good strategies and to implement policies of improvement in the middle and lower dimensions, and
- d) Very good; the federation is managed according to the criteria of TQM, and is an example of good practice. The only recommendation in this instance would be to maintain the process and to continue as previously.

3. RESULTS

The results highlight a positive assessment of Quality Management in the Galician Sports Federations (table 2). The mean Total Score EFQM Model for all Galician Sports Federations is 36.26 points over the 50 totals for the 50 questions of the questionnaire. A similar result arose across the different types of federations: 36.23 for the Olympic Federations, 33.62 points for the Non-Olympic Federations and 30.33 points for the Paralympic Federations. This score, 72.52%, places Quality Management in Galician Sports Federations in a positive position, although capable of improvement for the achievement of excellence.

Agents (inputs) and Results (outputs) are in the same range as the Total score with the mean returns of 0.71 and 0.64 respectively indicating good scores (table 3). There are only minor

differences between types of federations the same range, too. The Olympic Federations gain first position, returning 0.74 for agents and 0.64 for results; second for the Non-Olympic Federations with 0.68 for agents and 0.65 for results and third for the Paralympic Federations, with 0.67 for the agents and 0.55 for the results.

Table-3. Score of the TQM, inputs and outputs for the different types of federations

Dimensions	TOTAL					OLYMPIC					NON-OLYMPIC					PARALYMPIC				
	Z	Minimum	Maximum	Mean	Std. Deviation	Z	Minimum	Maximum	Mean	Std. Deviation	Z	Minimum	Maximum	Mean	Std. Deviation	Z	Minimum	Maximum	Mean	Std. Deviation
TOTAL	50,0	17,50	47,50	34,78	6,81	26,0	21,50	47,50	36,23	6,75	21,0	17,50	45,50	33,62	6,23	3,00	18,50	37,50	30,33	10,32
AGENT-INPUTS	50,0	0,31	1,00	0,71	0,15	26,0	0,39	1,00	0,74	0,15	21,00	0,31	0,98	0,68	0,16	3,00	0,51	0,82	0,67	0,15
RESULTS-OUTPUTS	50,0	0,21	0,89	0,64	0,15	26,0	0,21	0,88	0,64	0,16	21,00	0,31	0,89	0,65	0,12	3,00	0,28	0,70	0,55	0,23

There are more differences in the analysis of the dimensions. The ten EFQM dimensions analysed for associations (table 4) are measured in a range of 0.53 to 0.83 on 1.00 point, being positive assessments of dimensions 1, 3, 6, 7, 8 and 9 and "very good" for those dimensions 2, 4, 5 and 10. Note that no dimension is valued by those responsible as poor or fair.

Table-4. Score of the EFQM dimensions for the different types of federations

Dimensions	TOTAL					OLYMPIC					NO OLYMPIC					PARALYMPIC				
	Z	Minimum	Maximum	Mean	Std. Deviation	Z	Minimum	Maximum	Mean	Std. Deviation	Z	Minimum	Maximum	Mean	Std. Deviation	Z	Minimum	Maximum	Mean	Std. Deviation
1. Leadership	50,0	0,00	1,00	0,60	0,26	26,0	0,00	1,00	0,63	0,28	21,0	0,17	1,00	0,58	0,23	3,00	0,00	0,75	0,42	0,38
2. Planning	50,0	0,25	1,00	0,83	0,16	26,0	0,25	1,00	0,83	0,18	21,0	0,60	1,00	0,82	0,14	3,00	0,80	1,00	0,87	0,12
3. Human resources	50,0	0,00	1,00	0,54	0,30	26,0	0,00	1,00	0,58	0,32	21,0	0,00	0,90	0,52	0,27	3,00	0,00	0,70	0,43	0,38
4. Services	50,0	0,25	1,00	0,83	0,20	26,0	0,25	1,00	0,83	0,19	21,0	0,38	1,00	0,81	0,22	3,00	0,75	1,00	0,92	0,14
5. Resources	50,0	0,30	1,00	0,78	0,22	26,0	0,30	1,00	0,83	0,20	21,0	0,40	1,00	0,72	0,22	3,00	0,40	1,00	0,80	0,35
6. Communication	50,0	0,00	1,00	0,68	0,26	26,0	0,25	1,00	0,72	0,25	21,0	0,00	1,00	0,64	0,28	3,00	0,50	0,75	0,58	0,14
7. People results	50,0	0,00	0,75	0,53	0,20	26,0	0,00	0,75	0,48	0,22	21,0	0,13	0,75	0,58	0,16	3,00	0,33	0,75	0,53	0,21
8. Process results	50,0	0,00	1,00	0,55	0,22	26,0	0,00	1,00	0,56	0,22	21,0	0,00	1,00	0,55	0,23	3,00	0,25	0,60	0,48	0,20
9. Society results	50,0	0,00	1,00	0,67	0,26	26,0	0,00	1,00	0,69	0,26	21,0	0,25	1,00	0,66	0,23	3,00	0,00	0,75	0,50	0,43
10. Key results	50,0	0,42	1,00	0,80	0,14	26,0	0,42	1,00	0,83	0,15	21,0	0,50	0,92	0,78	0,12	3,00	0,55	0,83	0,70	0,14

Summarizing the analysis between the different federations (table 5) the results show that:

- a) Poor values are found in five dimensions: the dimension number 7 "People results" in the Olympic Federations, the same as dimension 1 "Leadership", dimension 3 "human resources", dimension 8 "process results" and dimension 9 "society results". The Paralympic Federations did not have poor dimensions.

- b) Very good values are found in four dimensions: dimension 2 “planning” and dimension 4 “services” valued very good even if the federation is Olympic, Paralympic or No Olympic; dimension 10 “key results” in Olympic and No Olympic and dimension 5 “resources” in No Olympic and Paralympic.
- c) The remaining dimensions are valued “good”. No differences are found between federations in the value of the TQM, Agents (Inputs) and Results (Outputs) that are considered “good”.
- d) No “very bad” values are attributed to any of the different types of federations.

Table-5. Summary of the assessment of the EFQM dimensions in Galician Federations

Values of the Dimensions	Regular	Good Value	Very Good
Recommendation Practical Strategies	Dimensions to Change	Dimensions to Review	Dimensions to Maintain
Total		TQM (34.78) INPUTS (0.71) OUTPUTS (0.64) 1.Leadership (0.60) 3. Human resources (0.54) 6. Communication (0.68) 7. People results (0.53) 8. Process results (0.55) 9. Society results (0.67)	2. Planning (0.83) 4. Services (0.83) 5. Resources (0.78) 10. Key results (0.80)
Olympic	7. People results (0.48)	TQM (36.23) INPUTS (0.74) OUTPUTS (0.64) 1.Leadership (0.63) 3. Human resources (0.58) 6. Communication (0.72) 8. Process results (0.56) 9. Society results (0.69)	2. Planning (0.83) 4. Services (0.83) 5. Resources (0.83) 10. Key results (0.83)
No Olympic		TQM (33.62) INPUTS (0.68) OUTPUTS (0.65) 1.Leadership (0.58) 4.Human resources (0.52) 5.Resources (0.72) 6.Communication (0.64) 7.People results	2. Planning (0.82) 4. Services (0.81) 10. Key results (0.78)

		(0.58) 8.Process results (0.55) 9. Society results (0.66)	
Paralympic	1.Leadership (0.42) 3.Human resources (0.43) 8. Process results (0.48) 9. Society results (0.50)	TQM (30.33) INPUTS (0.67) OUTPUTS (0.55) 6.Communication (0.58) 7.People results (0.53) 10. Key results (0.70)	2. Planning (0.87) 4. Services (0.92) 5. Resources (0.80)

4. DISCUSSION AND CONCLUSIONS

The results found in this article are similar to other researches. [González et al. \(2008\)](#) explained that the Quality of the Sport Federations of the Chile Olympic Committee (COCH) had “good management”. We could not compare the results between types of federations because we did not find research that explains the quality management in Olympic, Paralympic or Non-Olympic Federations.

In general, our opinion is that the third sector does not have a focus on TQM and third sector entities are usually reticent to introduce or use organizations specializing in quality management. [Abou \(2012\)](#) explains that clubs requiring specialized expertise in quality management will develop a specialized internal TQM department. If we consider the importance and the benefits of quality management in sport organizations that would clearly become necessary. [De Knop et al. \(2004\)](#) indicated that applying TQM to clubs enables them to optimise their management systems, thereby highlighting their main strengths and weaknesses. In the case of sport organisations, TQM processes could, in addition, be used to support recommendations concerning sport policy.

The "Assessment Questionnaire for quality management applied to sports entities such as Sports Federations (QMSF)" is a useful and easy instrument for assessing the quality of management of the entity. The results permit an analysis of the priorities, strengths and weaknesses that the federation should preserve, prioritise and / or change in order to obtain enhanced, improved management and consequently, to achieve excellence.

Further researches in this area could propose strategies to improve the management of the Federation and could result in construction of a Total Quality Management model applied to Sport Federations as a guide to those types of entity. Moreover, because this study is based on the self-perceptions of the President or staff of the federation, it would be extremely interesting and possibly illuminating to compare these results with more independent, objective indicators.

Increased research on the subject of Quality Management in Third Sector organisations would be a useful platform upon which to consider improving the management of such entities – in both theoretical and practical ways – in particular to improve the quality of the development of sport. It is an open line of research for further interested researchers in this topic.

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