

Development of a Taxonomy of Performance for Moroccan Sports Federations

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In recent years, we have witnessed the establishment of a professionalization process in Morocco. Thus, the multiple problems of the Federations push the managers to raise questions relating to management. However, the interest of Moroccan researchers in management sciences has not been focused on this type of organization. Having said that, performance management is a powerful lever for companies' success. It is based on the establishment of a comprehensive evaluation system via measurement indicators. This makes it possible to evaluate the activity and trigger corrective measures in the event of failure of the strategies laid down, ineffectiveness and non-achievement of goals. Nevertheless, measuring the organizational performance of Sports Federations is complex because of their thorny and paradoxical nature. Based on this observation, we consider it useful to go through an intermediate analysis which will subsequently simplify the establishment of a performance measurement system by these organizations. Thus, we adopt a classification study. The latter allows us a simpler presentation of the profiles of the organizations studied, by bringing together, on the one hand, those seeking to achieve financial, sporting or societal goals. And on the other hand, those who have the necessary resources allow it to achieve these objectives, which guides us to adopt this study of hierarchical classification through the use of Ward's method.

Keywords: *performance, taxonomy of performance, sports federations, sport organizations, Morocco*

Introduction

In 2008, the ministry adopted a new sports strategy, aimed at orienting Moroccan sport towards a concept of performance which appears polysemous because it refers differently to several translations: economic (growth), financial (profitability), legal (solvency), organizational or even social (Bayle 1999). It is thus clear that performance assessment requires a multi-criteria approach. As far as sports organizations are concerned, the notion of performance is still unclear.

Speaking of sports organizations, we are moving directly towards sports federations. The position of these organizations in the sports sector is strategic, their role is crucial in the sports policies of the States (Winand 2009). Moreover, they intervene in different areas: economy, social, politics, education. These sports

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organizations allow associations to come together through a federal network. This generates a significant negotiating force vis-à-vis the public or economic authorities. They ensure the organization of sporting events, the management of various sporting practices and collaborate with the state in social affairs through the education and socialization of sport (Zintz and Vaillau 2008). According to Bayle (2007), the Federations are characterized by traditional companies such as: the multiplicity of the aims pursued, the mixed financing method (public-private), the presence of a team which brings together volunteers and employees and sometimes civil servants of the state, as well as its adherence to national (Moroccan sports model General Introduction 21) and international (International Federation, International Olympic Committee ...) regulatory systems. As for the Moroccan Sports Federations, they are under the supervision of two powers, internal and external: the first is represented by the supervision of the Ministry of Youth and Sports and the second by the International Federation. Indeed, their amateurist management has always been a violation of professionalism.

The conditions for good governance had to be put in place through transparency in management, the adoption of control and accountability mechanisms, respect for ethical rules as well as performance evaluation as well.

That said, performance management is a powerful lever for companies' success. It is based on the establishment of a comprehensive evaluation system via measurement indicators. This makes it possible to monitor the activity and trigger corrective measures in the event of failure of the strategies laid down, ineffectiveness and non-achievement of goals. Nevertheless, measuring the organizational performance of Sports Federations is complex because of their thorny and paradoxical nature.

The complexity of measuring the performance of sports federations, which is both tangible and intangible, leads us towards the adoption of a classification study. The latter allows us a simpler presentation of the profiles of the organizations studied, by bringing together, on the one hand, those seeking to achieve financial, sporting or societal goals. And on the other hand, those who have the necessary resources allow it to achieve these objectives, which guides us to adopt this study of hierarchical classification through the use of Ward's method.

The objective of this article is to present a classification of Moroccan Sports Federations based on dimensions of organizational performance, and also to identify their typology in accordance with their strategic purposes. The aim is to highlight the existence of performance profiles for the 36 Federations included in the study and to distinguish their homogeneous groups through a typological approach. For this purpose, we carried out a quantitative study using a survey addressed to the key officials of each federation.

Literature Review

Sports Federations

Sports organizations are essential in the civic life of a country, they allow individuals to take an active part in their community and contribute to their general well-being, bringing added value. In this perspective, the Federations play a decisive role in the sports policies of nations (Winand 2009), because of their interventions in the various fields: economy, society, politics, education, etc. They represent the cornerstone of the sports movement, which is organized on a pyramid model both in Morocco and internationally. Their mission is to organize, develop and promote the practice of sport in one or more disciplines: the organization of competitions at different levels (local, regional, national), elite training, participation in competitions international research, sports results research, licensing, training of volunteer educators, referees, medical monitoring of athletes (Zintz and Vaillau 2008).

Added to this are their responsibilities relating to the regulation of sporting activity. Bayle (1999) thus summarized their functions in the following points:

- Sport governance.
- Establishment and management of sports programs.
- Preparation of national teams.
- Implementation of actions to promote sports activity.
- Organization of competitions at national level.
- Preparation of the elite for participation in international competitions.

As we can notice, sports federations are characterized by the multiplicity of objectives, but even more, a diversity of human resources who manage and work within these establishments, speaking of volunteers and employees, mixed funding (private and public ...). These peculiarities create a certain ambiguity at the managerial level, and therefore the pursuit of performance becomes more complex.

Performance of Sports Federations

There does not seem to be a universal definition of “performance”. Indeed, this notion remains relative depending on the context and field in which it operates. Thus, it can correspond to efficiency, productivity, return on invested capital, input/output ratio.

Being efficient is the *raison d'être* of any organization, whatever its nature and activity. However, defining this notion has always been complex and has given rise to several debates for years, as Bayle, (2007) points out: “The performance must be specified each time you want to use it. Indeed, this vague concept occupies a central place in any organization. It intrigues several questions and generates various definitions. It is generally designed with regard to effectiveness,

efficiency, effectiveness, productivity and relevance. The notion of performance is indeed a construct, an abstract notion conveyed by the theorists of organizations.

Indeed, organizational performance has been treated with care by both profit and non-profit organizations. Nevertheless, its study is complex and there is still a “lack of conceptual coherence”. Indeed, three reasons could explain this ambiguity: At first glance, different schools of thought examined organizational performance (Walton and Dawson 2001). The preferences and criteria for understanding and measuring each of them lead them to understand this notion from their own point of view. Then, this concept has been studied in many types of organizations. In this sense, performance can have different meanings depending on how success is perceived and defined. Since the mission and objectives of the organization are obviously different depending on the context and the typologies of the structures, multiple definitions apply. Finally, we are faced with the question of strategic constituents (Herman and Renz 2008). In other words, each stakeholder in an organization may have an individual perspective on how performance should be assessed and addressed, which may differ from that of the organization itself. These three reasons obviously prevent the possibility of a unified approach and a single definition of organizational performance. As a result, we see diversity in research on organizational performance according to different approaches and expectations of individuals.

Cameron (1986) emphasizes the subjective and multidimensional nature of organizational performance. According to these authors, studying this notion in terms of financial or business results provides only a reduced view of the organization. Thus, it is imperative to broaden the analysis by taking subjective and objective criteria. Love and Skitmore (1996), report that the subjective assessment of the effectiveness of an organization is found to be an excellent indicator of the subsequent survival and growth of the organization.

Therefore, Winand et al. (2015) clarified that the study of organizational performance is complex in many respects. First, it is examined by different approaches, each with its own perception of understanding and method of measurement. Then, it must be studied depending on the type of organization, and therefore perceived according to the nature and objectives of the structure in question. Finally, each stakeholder (internal and external) perceives organizational performance from its own vision (Walton and Dawson 2001).

Purposes of Moroccan Sports Federations

The goals of sports organizations are much more difficult to determine because they are not fixed a priori, which explains the difficulty in defining the managerial coherence that should result from it. One can thus defend the idea that performance can be a function of the capacity of the organization to meet the needs of society and to achieve sporting results. The notion of paradox management is present at the operating level of the federal system. This characteristic further complicates the measurement of performance. Indeed, sports organizations produce goods and services that they make available to the environment and it is important, as for private companies and with similar methods, to know and assess

to what extent these goods and these services are accessible, used and appropriate to the needs detected and what are their production costs (Bayle 1999).

For sports federations, some will want to see in them a system capable of 'producing' champions, for others it will be a system capable of disseminating the sporting phenomenon to as many people as possible, which refers to the achievement of athletic performance. Along the same lines, Babiak (2007) asserts that the advent of the "reign of public opinion" calls for several consequences for the management of organizations. The rationality advocated by scientific management, where only technical measures prevail, is followed by systemic management which strives to take into account a stronger interaction between the organization and its environment.

The particularity of sports federations, relating to the multiplicity of aims pursued, directs each researcher wishing to study performance to adopt a multidimensional approach. In this vision, we will find below an overview of the different aims pursued by Moroccan sports federations, then the determinants allowing the achievement of these objectives (Jibraili 2020).

Objectives Pursued by the Moroccan Sports Federations

The sporting objective: Among the strategic goals of the sporting federations, the achievement of the sporting goal is undoubtedly the most striking. Qualified as "sports performance", Bayle (1999) considers it to be vocational insofar as it corresponds to the areas of expertise of the Federations. The speeches of the respondents are oriented towards the qualified objectives of "Sports production", "Winning medals or competitions", "Production of champions" "Popularization of sports practice and the increase in the number of members".

Chelladurai and Haggerty (1991), Papadimitriou (2000), Wolfe et al. (2002), Balduck (2009), Koski (1995) and Winand (2009) concluded in their work that the Federations usually pursue two distinct and not very contradictory sporting objectives: these are the missions relating to "national (mass) sport" and "sport of high level (elite sport)". This orientation is reflected at the Moroccan level by the development of the elite, whereas was indicated by the respondents: "the achievement of high-level sporting success". In addition, the Moroccan Federations also have the responsibility of ensuring sports promotion, which is equivalent to the development of sport for all (Madella et al. 2005, Bayle 1999).

National sports federations have become supreme players in the country's societal development. With the changes experienced by this sector during this period, and since 2008, these organizations have become partners of the Ministry of Youth and Sports and the State in societal missions relating to: education, health, ethics and respect the environment. The analysis of the statutes of the Federations, the objective contracts and the speeches of the respondents made it possible to conclude that in parallel with the sporting vocation, the Federation also pursues a societal interest of an ideological nature, qualified as "societal performance". The latter is an almost primary purpose for Federations and may represent the central objective for others. Thus, the answers provided by the experts were all oriented around the same ideological and humanist connotation of the axiological message delivered.

Several authors have mentioned the importance of the societal dimension within sports federations, for Victor (2017), societal performance corresponds to the Federation's contribution to maintaining the health of population through the practice of mass sport. According to Winand (2009), it corresponds to the implementation of activities to support and promote the values of the organization.

Determinants of Organizational Performance

Size represents a main factor in achieving the performance of Moroccan sports federations. It corresponds to the number of salaried employees, volunteers and finally licensees affiliated to these organizations. For both authors and respondents, this determinant is of crucial importance in every attempt to measure the purposes of the Federations. This dimension has a great impact on the success of their sports programs, on promotion, and on societal performance. Indeed, the critical size required to achieve strategic objectives was also raised by respondents. Some federations with limited financial resources and small sizes are not in a position to honour all of their commitments. Smith (1996) also asserted that the size of the organization is a key factor in performance. By citing the research of Papadimitriou (2002) and Slack (1985), these authors stated that this factor explains the level of professionalism and the mode of governance of these organizations.

The financial objective within the Federations relates to the search for as much financial resources as possible. The majority of Moroccan sports federations are totally dependent on the subsidies granted by the Minister of Sport in Morocco-Ministère de la Jeunesse et des Sports (MJS). This State funding, which represents more than 70% of their budget, is allocated to them annually according to the ratings assigned to them following the system of evaluation of objectives.

People are the heart of any business, whatever its activity. It is therefore crucial to create a favourable internal climate. Indeed, the organizational climate for a Federation is no different from that of other organizations operating in other sectors, insofar as it concerns a permanent and stable staff. It has been highlighted as a key determinant in the performance model of sports organizations. Bayle (1999) underlined the need of the Sports Federation to maintain a good social climate by improving the quality of working conditions, collaboration, even personal development between the voluntary actors, employees and technical managers, at the head office level. Federal. This author presented four areas of reference: working conditions, training, organization and coordination of tasks. Likewise, Koski (1995) underlined that the dimension of the "organizational climate" corresponds to the capacity of the sports federation to motivate its technical and administrative team.

The aspect of financial management is one of the determining factors that were highlighted by the experts consulted. As pointed out by Wolfe et al. (2002), Balduck (2009), Papadimitriou (2002) and Winand et al. (2010). Sound financial management goes hand in hand with a high level of performance. The faculty of the Moroccan Sports Federation to control its financial balance is judged by the respondents as peremptory. Indeed, the strong financial dependence of the

Federations on grants granted by the MJS prevents their financial stability and causes the absence of autonomy of these organizations.

The management of sports programs is at the level of high-performance sport and sport for all (Chelladurai et al. 1987, Wolfe et al. 2002, Balduck 2009). On the one hand, high performance sports programs bring together all the services for high performance athletes. On the other hand, Sport for All programs are actions, in sufficient quantity and quality, intended for all member members. Thus, the respondents demanded that a Federation, which wishes to achieve sporting goals, will have to set up a promotional and high-level sports program.

Respondents stressed in their statements that it is essential for a Federation to maintain relations with its institutional environment. From the same point of view, Bayle (1999), Papadimitriou (2002), Wolfe et al. (2002), Balduck (2009) and Winand et al. (2010) indicated that external communication is a key factor in the performance of these organizations. On the road to achieving strategic objectives, National Sport Federation (NSF) are required to promote and develop their discipline through their media coverage. Bayle (1999) noted that the external communication of a NSF was reflected in its ability to publicize the image of its discipline and its activities in a positive manner. The sports organization must develop a communication system with its institutional partners: sponsors, media, Ministry of Youth and Sports and other sports bodies in order to control its external environment. This communication is viewed from the perspective of notoriety.

Research Methodology

The objective is to propose a classification of Moroccan Sports Federations based on the eleven dimensions of organizational performance. We are also interested in identifying their typology in accordance with their strategic purposes. The aim is to highlight the existence of performance profiles for the 36 Federations included in the study and to distinguish their homogeneous groups through a typological approach. To this end, the method of ascending hierarchical classification is undeniably important. To do this, we established a score for each dimension based on the average of the indicators selected. Subsequently, we calculated the score of the Federations on the basis of the eleven dimensions. The choice is made on the use of a hierarchical parametric classification, more precisely the Ward method for two reasons:

- We have data that have interval properties (5-point scale).
- We have a sample of 86 individuals.

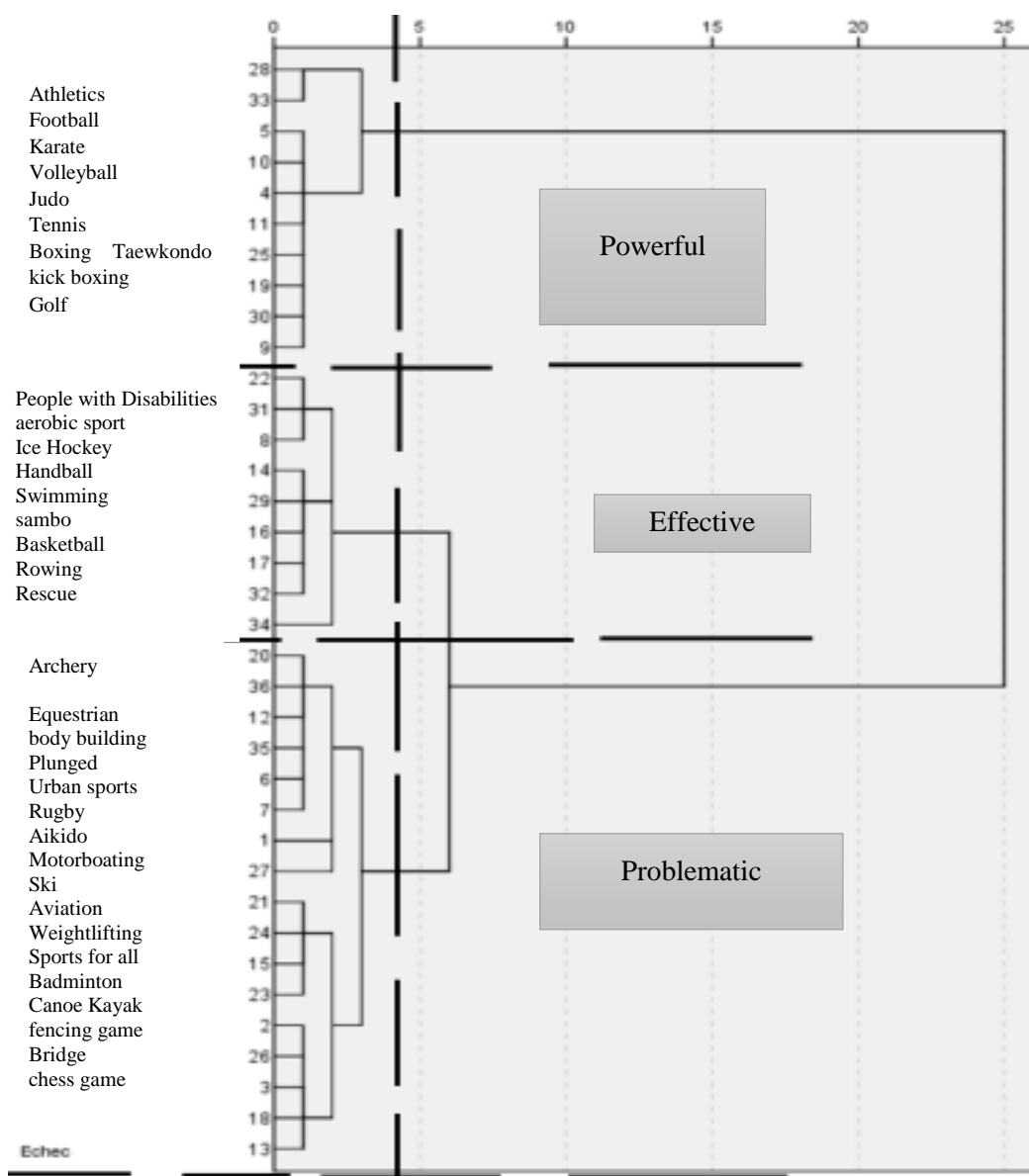
Before starting the analysis, it is first necessary to recall Ward's hierarchical classification method adopted.

This is because hierarchical classification methods place items on the basis of similarities between clusters. The latter progress through a series of steps that builds a tree structure, adding clusters or eliminating them from clusters. As a

result, we distinguish between two types of hierarchical groupings: division and agglomeration. The choice fell on the second, which is the Ward method (Hair et al. 1992). Ward's minimum variance method was originally presented by Ward (1963). She defines a class as a group of entities in which the variance between members is relatively small (Blashfield 1976). The classes are gradually formed according to the principle of minimization of variance (Morey and Blashfield 1983). According to Vachon et al. (2005), Ward's method has demonstrated very powerful results, compared to solutions obtained by other techniques (Morey and Blashfield 1983). It is widely used in most management science studies. In this case, we chose to combine this method and the Euclidean distance, because they have shown good performance when used by the authors in different studies (Beaulieu-Prévost 2002). For the analysis, we used IBM SPSS Statistics 2.0 software.

Results and Discussion

The results of this clustering are provided by a dendrogram which successively groups the Federations according to their proximities in accordance with the Ward distance. Three groups were highlighted through the results of clustering. The diagram shown in Figure 1 has been formatted in a specific way to make the different classes clearly visible.

Figure 1. Hierarchical Dendrogram Analysis (Ward Method)**Table 1. Presentation of Clusters**

Dimension	Cluster 1	Cluster 2	Cluster 3
High level sporting success	2.47	4.45	2.55
Promotion	2.81	4.37	3.30
Societal performance	2.77	3.85	3.52
Acquisition of financial resources	1.65	2.48	1.48
Size	2.53	3.73	3.07
Promotion program	2.40	4.03	3.42
Elite sport program	1.59	3.42	1.88
Financial ressources management	1.87	3.80	2.22
Organizational climate	2.04	3.74	2.58
Organizational functioning	3.47	4.40	4.52
External communication	2.43	4.20	3.30

By drawing inspiration from the classification method used by Bayle (1999) and by referring to the table above, the analysis of the results from the scores and the means of each variable forced to adopt three qualifiers to name the classes: “the powerful”, “the efficient” and “the problematic”.

- **Powerful:** High scores on the eleven dimensions of organizational performance.
- **Effective:** Average scores on seven dimensions of organizational performance and relatively low on three others.
- **Problematic:** Low scores on most dimensions of organizational performance. The membership of each Federation: to the first, second or third cluster is indicated in Table 2.

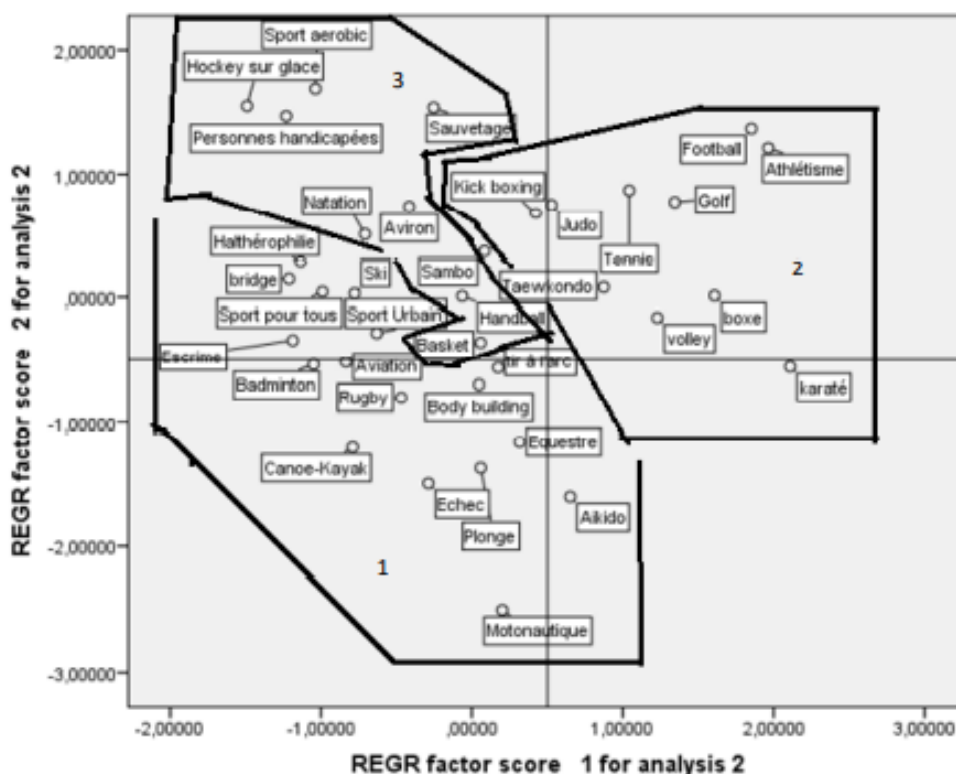
Table 2. Clusters of Federations

Cluster 1	Cluster 2	Cluster 3
Aïkido	Judo	Hockey sur glace
Badminton	Boxe	Handball
Escrime	Golf	Sambo
Sport Urbain	Karaté	Basket
Rugby	Tennis	Personnes handicapées
Body building	Taekwondo	Natation
Echec	Volley-ball	Sports aérobics
Haltérophilie	Athlétisme	Aviron
Bridge	Kick boxing	Sauvetage
Tir à l'arc	Football	
Ski		
Sport pour tous		
Aviation		
Canoë-Kayak		
Motonautique		
Plongée		
Equestre		

In addition to the dendrogram, we find it useful to represent the three groups of sports federations by a principal component analysis (PCA), in order to expose the three classes on a two-dimensional graph. This will highlight the Ward distances that separate the Federations (see Figure 2).

Principal Component Analysis (PCA) is one of the multidimensional descriptive methods called “factorials”. It can transform many starting indicators into synthetic indicators called principal components or factors. This analysis produces axes (factors) which are linear combinations of the initial variables, hierarchical and independent of each other. It is a powerful tool for compressing and synthesizing information. It corresponds to a projection method which makes it possible to present observations from the p -dimensional space of the p variables to a k -dimensional space ($k < p$). The vertical dimension of this PCA, which represents component 1, is marked by “good organizational functioning and good societal performance”. On the other hand, the horizontal dimension, which forms component 2, is characterized by “sufficiency of financial resources and sports performance”. Thus, the more a Federation is located at the top and to the right of the graph, the more it obtains high achievement scores on these dimensions. These organizations are considered to be the most efficient on the sporting and societal levels.

Figure 2. Presentation of Clusters by PCA



As for the Federations positioned at the top and to the left of the graph, they achieve good societal performance and have good organizational functioning, but

obtain low scores on the sporting side and have financial difficulties. In addition, the Federations positioned at the bottom and to the left of the graph tend to obtain a low performance score for “societal and sporting” purposes, have financial difficulties and have unsatisfactory internal functioning. On the other hand, those located at the bottom and to the right of the graph tend to obtain high scores on the sporting level, have sufficient financial resources but are weak on the organizational and societal functioning sides.

Conclusion

The analyses carried out on the federations studied allowed us to retain three performance profiles the powerful, the efficient and the problematic. Thus, we present below the summary of the survey carried out.

Class 2: The Mighty

The Mighty is composed by ten Federations: “Football, Athletics, Golf, Kickboxing, Taekwondo, Judo, Tennis, Volleyball, Boxing and Karate” form the powerful class with high scores on the eleven dimensions of organizational performance. These are the Federations with significant financial means, and a priori of a very good size. Very high organization and sporting performance, notably with good societal performance. They present a culminating overall level of performance. Indeed, these Federations have sufficient financial resources and size, a satisfactory level of organizational functioning and very good external communication. The organizational climate and the management of financial resources are efficient, which explains the good organization of the Federations which represent this group. It should therefore be noted that these organizations have good “promotion and high performance” programs. They result in very high scores for “top athletic success and promotion”. Which testifies to a good athletic performance. The organizations embodying these sports disciplines are also endowed with good societal performance. In the final analysis, Football, Golf and Athletics are the most efficient insofar as they register high scores on the two purposes: sporting and societal. They have titanic financial means and obey a very good organizational functioning. As for Boxing and Judo, they have good financial resources and are characterized by a good sporting level, while Taekwondo and Kickboxing are oriented much more towards societal performance.

Class 3: The Efficient

Nine Federations make up this group: Basketball, Handball, Sambo, Rowing, Swimming, Rescue, Sport for Handicapped People, Ice Hockey and aerobic sport. These Olympic and non-Olympic Federations are unsatisfactory on three variables and average or even good on the rest. These are effective Federations, particularly in terms of organizational functioning and societal performance. These organizations of smaller size than those learning the cluster of the powerful, obtain

relatively average scores, with a weakness on all dimensions compared to the class of the powerful. The lowest scores are recorded on the following three variables: “acquisition of financial resources”, “management of financial resources” and “high performance sport program”. Despite the difficulties related to financial means, this group is characterized by a good size, good external communication and manages to set up a solid promotion program. And scores higher than powerful on the dimension of “organizational functioning”. The Federations in this group reach a satisfactory societal level that is relatively similar to that obtained by the second group. However, they are weak on the sporting side. Following this, the disciplines of: Sport Aerobics, Ice Hockey, Rescue and Sport for People with Disabilities record the best scores on societal performance and internal functioning, which goes hand in hand with the nature of their discipline. This group is qualified as “Efficient” because the Federations seem to be making good use of their pool of practitioners and their good sizes. Despite the limited financial resources, they manage to have a very good organizational functioning and to achieve societal performance in an excellent way.

Class 1: The Problematic

This class is made up of eighteen Federations: Motor-boating, Aikido, Diving, Chess, Equestrian, Body Building, Archery, Aviation, Rugby, Canoeing, Badminton, Aviation, Fencing, Urban sport, Sport for all, Skiing, Bridge, and Weightlifting. These sports federations are living in difficulty: They have a low or even average score on the eleven dimensions of organizational performance. Their size is medium and their financial situation is precarious. Indeed, these Federations come up against problems in setting up their annual high level sport programs. The management of financial resources is unsatisfactory and the level of communication with the external environment is low. On the other hand, this group is relatively satisfactory in terms of organizational functioning. Some Federations, such as “Weightlifting and Skiing” and to a lesser extent “Sport for All, Urban Sport, Fencing and Bridge” manage to score an average score on societal performance and on organizational functioning. By ruling out “Aikido”, all the Federations in this group have financial problems and encounter difficulties in achieving sporting goals. This cluster has major weaknesses, in particular through the inability of the organizations that represent it to achieve good sporting and societal performance.

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