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THE QUALITATIVE AND QUANTITATIVE APPROACHES IN THE MODERN ORGANIZATIONS, A SPORTS ANALOGY

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ABSTRACT

Currently, the organization management has been characterized by the intensive use of models, tools and techniques that emphasize the quantitative approaches in the decision-making processes, however, many relevant aspects can be neglected by this trend. Factors that cannot be easily quantified or others that can be eminently qualified, such as subjective and emotional characteristics, often do not receive the proper attention and, thereby; distort numerical indicators due to the inability to balance both approaches: quantitative and qualitative. In this work, we tried to analyze the situation in the modern management through a sports analogy, using two distinct modalities, football and volleyball, to illustrate, respectively, the qualitative and the quantitative.

Keywords: *football, volleyball, qualitative, quantitative, analogy, modern management*

1. INTRODUCTION

Initially, to define clearly the purpose of this study, it is not intended to make a judgment that football be better than volleyball, or otherwise. Either, it will be used in order to develop deep, technical and specialized analysis sport scholar's point of view.

Besides, we try not reducing both modalities at clichés and commonplaces where the defenders of each seek to emphasize in an attempt to argue of the intrinsic superiority of one over the other. The purpose is in order to, primarily; establish an analogy between two sporting practices with essentially different particularities, with modern management, which adopts increasingly a more objective and rational model over the subjective and emotional. In addition, collaterally, we try apprehending practice elements and sports studies, which can be used by managers in the management of their organizations, owing to its multidisciplinary character.

Throughout this work, we recognize the importance of quantitative approach but, we look up, through this analogy, emphasize qualitative attributes that contribute to the development of modern management, through reflection and the possibility of other approach complementary to the first, that would provide a bigger understanding of many business situations by involved with the organization, the stakeholders. The use of a qualitative approach may ultimately still favor a corporative transparency filling spaces relegated by a highly quantitative management view, which could be a communication difficulty with all the players participants of this global game because the transparency represents a way to prevent that misinformation fill the void left (BENNIS et al, 2008, p. 12).

1.1 The Use of Analogy as transmission way of Scientific Knowledge

The analogy can be an interesting way for the knowledge transmission regarding certain theme, it would be better understood by comparing with other topics, which, in turn, apparently are destitute of a connection between them and the research object but replaces momentarily the direct analysis of that object, according to Adrovere Duarte (1995).

These authors argue the validity of analog strategy of instruction consisting of an explanation modality, where the introduction of new knowledge by who teaches take place from the explicit establishing of an analogy with a better organized and more familiar knowledge domain, which serves as a reference frame to understand the new information, capture its structure and integrate it, significantly in the cognitive structure. In this aspect, we have in a complementary way that:

The metaphorical concepts are so rooted to our culture they structure our daily and scientific activities in an imperceptible and unconscious way; they are, indeed, constitutive thinking and acting manner of an era. (CORACINI, 1991, p. 138.)

According to Motta, Pinheiro, Vieira (2010), the analogy corresponds with a valid procedure with an expressive utility in the process of knowledge generation, widely used by both academic and organizational environment. The organizational environment is in the origin of the creative and innovative initiatives, besides being an established feature.

Other situations, where the direct approach of the theme would not allow us to have a full comprehension, would also be feasible to the analogy utilization, as it would make the knowledge transfer easier from one conceptual domain to another, as Andrade, Zylbersztajn and Ferrari (2002) stress. However, the analogy has its limitations, among them, the chance of causing a science stagnation and the obstacles creation to the scientific knowledge transfer, as Bachelard (1938) alerts when he claims that these obstacles would be based in the first experience, in the general knowledge, in the abuse of usual images, in the pragmatic unitary knowledge, in the realism and in the quantitative knowledge. This concept elaborated by Bachelard is known as epistemological obstacle.

The analogy application in this work aims to function as a bridge or model, because, here, it is understood towards the probable extension of the knowledge through the usage of generic similarities that can be adduce between several situations and not in the fundamental sense, restricted and mathematician, equivalent to the proportions of equal relations (ABBAGNANO, 1999). Likewise, we can guarantee that, as its nature, it is external to the conceptual framework, because the analog used does not have origin in the specific scientific field (QUEIROZ, 2000).

2. MODERN MANAGEMENT AND ITS QUANTITATIVE BIAS

Lately, management has been acquired an approach more quantitative, that means a remarkable influence from the nature sciences, predominantly working in the rational and objective fields when it uses numbers and statistics, standard processes for dimensioning, quantifying and attributing parameters and indicators to all the organization structure, since commercial sector with the sales targets until the people management. The latter, among other attributions, is the responsible for climate survey with its attempts of quantifying something subjective and not logical and rational, because the climate survey reflects the interaction between people of this organization. Coda (1993) describes that it is the indicator for satisfaction level for the members of a company, for different culture aspects or apparent reality of an organization, such as: HR (Human Resources) policies, management model, mission, communication process, professional appreciation and identification with the organization. By this description, we can immediately notice the specificity of the organizational climate of each company, due to this, the need to act with caution with the results of the climate survey of different companies, that is found in totally distinguish contexts and realities, with several organizational culture and goals. But, mainly, they are motivated to see the name of their company highlighted in publications about “best companies” or the “best companies to work”, many managers strive, demand for results, and search, almost as an implicit requirement, satisfactory

internal reviews, that not always reveal the sincere feelings and thoughts from their employees. Likewise, the organizational climate can be understood according with the following definition:

Perceptual phenomenon lasting, built based in the experience, multidimensional and shared by the members of an unit of organization, whose main function is guide and regulate the individual behaviors according to the standards set by it. (KOYS; DECOTIS, 1991, p. 266)

Therefore, it is necessary the following question: what is the relevance of these comparative rankings indicators of best companies to work?

It is evident that many areas develop relevant numeric indicators, becoming the main points of analysis, like the sales example, but in other cases, such rational quantification can misrepresent the analysis in its embracing conception, like the People Management. However, this predominance of the quantitative approach should not atrophy or distort the managers capabilities regarding certain skills based in little tangible elements like creativity, foundation to the generation of innovation, the insights or perception, improvisation or flexibility, that were called volatile skills (RUAS, 2004), so common in other knowledge fields or human activities, like literature, education, dramaturgy or some sports. However, other distortion aspect of a management predominantly quantitative lies in the difficulty to assign correct weights and quantitative and qualitative factors in its decisions, as described by Bennis and O'Toole (2005). These researchers elucidate regarding the strategic decisions that tend to go wrong, especially, when purely based in quantitative factors, primarily when describing the professional trajectory of Robert McNamara who created many administrative techniques backed up in quantitative models, both the Ford executive and later the U.S. Department of Defense. McNamara later resigned and said the objective analysis many times takes to the overvaluation of the person's knowledge, "we see only what we want to believe", that mean; the manager tends to mark out his actions in quantitative models based in straight forms and formulas of success passed to extrapolate their decisions of future business.

However, these straight forms and formulas of past success do not guarantee more, in most of the situations, good future results, because, they are "quantitative photos" taken from market survey and numeric reports from a previous moment, even if they were updated from the point of view of data collection, that usually have little use in a dynamic and globalized world where the business theatre changes constantly from stages and scenarios, and that almost in an unanimous mode, they forgot to consider significant variables, under the pretext that these were not measurable, this is, quantifiable. Not rarely, among the ignored qualitative variables there are the human, moral and ethics factors, that once disregarded, will necessarily compromise the quality of the management decision taken and with this, conduct the organization toward wandering or deviant paths.

In a first moment, the decision-making that was done without considering these fundamental qualitative aspects can mean the manager career success, but it will not tarry for the whole organization to pay for these decisions, that, in practice, will lead toward the mentioned wandering or deviant paths. An example for this case can be illustrated by the interview of Jean-François Chanlatem regarding the Enron crisis in the early 2000's in United States, when he says:

Thinking about the Enron managers, for example, who were celebrated by Fortune magazine over six years and by many other highly specialized in business observers (like the McKinsey consultancy company), we could say they were successful. However, some of them are in jail today! (FREITAS, 2008, p. 67).

Increasingly, the organizations analyze the scenarios and try to qualify them in frequently fruitless attempts to predict the performance of their organizations in the market where they operate with precision and considerable advance. The managers are most commonly criticized for failing these tasks than for eventual inefficiencies of their managerial performance (MARTIN, 2011). However, even though there are over reaction from the managers to measure all the aspects of the organization, there is the need to acknowledge that models based in quantitative indicators have contributed to the modern organization management, although it is impossible to give them a higher dimension that makes them dispense with the capability of managers' qualitative analysis. Hence, the need of better understanding the qualities that permeate this ambiguous and uncertain world (MARTIN, 2011).

Between these models with features predominantly quantitative, we highlight the ISO 9000 family of standards that in the end of 80's and during the 90's assumed the almost magic aura with the intention to make the organizations better and more efficient and their clients and employees more satisfied, but it was not what happened. Despite they had brought benefits, these benefits were not the promised by several consultants, which

would make the organizations that adopted them superiors, proposition that is not explicit in the set of Standards, because, according to Ballestero-Alvarez (2012) the emphasis in the ISO 9000 was and remains the continuous improvement, the view of the process in the quality management, beside serving and supporting the organization of all kind and size, in the adoption and operation of systems of effective quality, extolling the client importance and its needs, nothing more than this! No reference to the superiority, of publicity strategies, that certain Marketing departments tried to give to their companies, soon they get certified.

Another recent example of this type of model that aims provide a superior dimension of measuring is the *Balanced Scorecard* (KAPLAN; NORTON, 1997), originated in their studies published in 1992. On this work, we chose to reference *Balanced Scorecard* (BSC), because it is a management performance tool widely used nowadays, and it comes to the organization attempts to translate their goals and their view in clear and objective metrics and indicators. According to the authors, the *Balanced Scorecard* (BSC) is a set of measures directly related to the corporative strategy and its implementation ensures to the company the goal in its execution, translating the goals and processes in operational terms and allowing all managers to work with goals and processes, that would be standardized and easily quantified, inside the four perspectives of BSC model: financing, clients, processes, learning and organizational growth.

According to Bennis and O'Toole (2005), this rational trend in management is based in a false premise that it is an academic discipline like Physics, when it reality, management is a profession, like Medicine and Law, and it requires aids from several disciplines coming from human and social science, like Economics, Psychology, Philosophy, Anthropology and Sociology, among others. To these authors, no curriculum reform will be well succeeded while the scientific model does not change to a more appropriated model, founded in the profession requirements, with the inclusion of components that do not overly neglect the subjective and the qualitative. Bennis & O'Toole (2005) treat this distorted reality regarding the business and management schools in United States, but, due to the significant influence of the North American models in the Brazilian schools, we can consider that this also is the reality here.

In addition to this rational and objective scenario, quantitative of management, the complexity of business in real world, where the companies are each day deeper in the global market and connected by digital processes supported by a progressive information technology and by internet, it inflicts accelerated rate and agility in the decision-making to the managers, that need to be absorbed by the organization and the stakeholders quickly, like supplier, employees, investors and clients. Hence, in order to minimize the error possibility, these managers are based in standardized quantitative procedures, so their decisions reach all involved, almost instantly, but not always they imply the best options, and invariably, dispense of creativity and innovation, and distance themselves from excellence and punctuality, genuine in a complex thought, able to contemplate, an even qualitative view.

This work aims to analyze this trend to quantification, which has becoming preponderant in the modern management and caused a qualitative potentials atrophy in the managers, in favor of their objective capabilities. We also intend to recover the importance of the qualitative component, which can contribute a lot with the quantitative model, currently predominant, if both are used in the modern management in a balanced and conjugated way through the better utilization of each of the worlds with the goal to mitigate eventual existing intrinsic weakness in both, as even the renowned thinkers of natural science have exposed the relevance of qualities, as alluded Albert Einstein "It is not weird that human beings are deaf to stronger arguments while they are always inclined to overestimate the measurable accuracies." (*apud* FEYERABEND, 2005, p. 307).

In the organizations field, thinkers like Douglas McGregor, in the 50's, also proposed to managers to think in terms of human organization, with the gradual incorporation of features came from social science, rather than having only quantitative attitudes, like mechanics, prevalent at that time, when his work *The Human Side of Enterprise*, in which McGregor critically addresses:

The management practice seems to reflect at least one tacit belief that motivation of people for work is a problem in the "mechanic" order. There are certain similarities between this view of man at work and the Movement Law of Newton. Measurably, the man is seen as a physical body at rest. (*apud* HEIL, 2002, p. 10)

Although this critique to the management performance has been pronounced for decades, we must recognize that this mechanical-managers situation, in the sense of understanding the organization as a machine, is still present in many of our companies.

3. THE CHOOSE OF SPORTS ANALOGY

Thereby, we can compare to organizational analysis purpose, other human activity, also generating competition, like the business world, but, usually, awakens the emotional, playful and passionate side, and therefore, in theory, contains more qualitative features, where the possibility of prediction is limited and, where the quantitative component does not impose absolute. However, even in this world, there will be differentiation between areas. We refer to sports. Therefore, to this analysis of quantitative and rational rise over the qualitative and emotional, or what we could call a deviation or a path error, that the modern management is making, when, somehow, neglect the subjective aspects of an organization, we use the analogy of an element connected to a transcendent world: the sports.

For the purpose of this work, we will use two sports modalities suitable for fully corroborate with the analogy of quantitative approach versus the qualitative, respectively, the volleyball and the football. As for the second modality, we have lunched the Brazilian football, the one that historically maximize its qualitative particularities, as expression of football-art. This sport analogy can be widely understood with assistance of the text from Gil (1994), that finds an affinity between the typical Brazilian individual and the football style played in the country, basing his conclusion on the historical text from Gilberto Freyre:

Has just set unmistakably a Brazilian style of football, and this style is an expression of our most agile Mulatism to assimilate, dominate, soften in dance, in curves or in music, the more angular European or North-American techniques to our style: whether to play or architecture. Because ours is a Mulatism – psychologically, be Brazilian is be mulatto – enemy of Apollonian formalism, and Dionysian on its way – the mulatto’s greatest achievement. (FREYRE, 1945, p. 432, vol. 1)

These peculiar psychological characteristic from Brazilian football player described by Freyre as “mulatto style” are our players’ competitive advantage. Lopes ratifies this premise, on the following extraction on his text:

It can better show up and be characterized by creating plays; maybe the characterization of this style becomes more visible as it got incorporated in midfielder Didi’s “slower” and “cerebral” game: not only he is the inventor of goal kick named “dry leaf”, but also his upright body posture, his subtle body dribbling and his “curved” long distance passes and throws, that resulted in a game style of apparent less effort, use of intelligence and cunning rather than straight. (LOPES, 1994, p.76).

These are the causes that define the success of football in Brazil, different from other styles, especially, the European countries that value the tactical planning and a strong rigidity in its execution, making these less improvisers, and therefore, less subjective and with emotions potentially reduced, though, we say here football suits universally and intrinsically a subjective, qualitative and less rational sport, even with some fruitless tactics try to make this game something more mathematical, accurate.

Gil (1994) complements too that football in Brazil was developed as an alternative to rowing, which enjoyed a remarkable success in end of XIX century, beginning of XX century, because it was democratic, since it allowed people from different body structure, or even people coming from different levels of purchasing power to practice it. Thus, when we metaphorically use the intrinsic particularities of Brazilian football, that refer to a more qualitative, heterogeneous and multidisciplinary model, could we make some sort of association between the football more quantifiable and outlined, practiced sometimes in some European countries, with the modern management trend to be rational and objective, even when the situation demands the managers to be more subjective and qualitative, enhancing its perceptions and feelings in their decision-making? However, these tactics they tried to impose to football, a predisposition to quantification made them fruitless, what points to the qualitative essence of this sport modality.

Complementing these ideas, so it can be possible for us to strongly associate football with the emotional and qualitative particularities, that compose the analogic board, with modern organizations, Toledo says:

The uncertainty over the outcome of a football match is justified due to the configurational complexity of football that is presented by the extensive range possibilities of action from the players in the field space. Complexity that can be coded inside certain systemized knowledge, given the findings of recurrent standardization [...]. But it is important to highlight that this speech was not able to extricated itself from imponderables and, at same time, when it analyses the logical

possibilities of a match, it is imperative to guard from its idiosyncrasies, apparently averse to the technicist argument, and, more than that, to the own maintenance of an unique perception and sensibility issued from the sport framework. (TOLEDO, 2000, p. 38).

Furthermore, could we trace a parallel to the footballer who uses his skill and capacity to improvise to break the tactic plan previously and strictly established, trained and parameterized, or even, to the studies and advanced researches about the football practice served as an example to the modern management speculates over the quantitative models, that strikingly value the rational and objective? Because, they could corroborate with the hypothesis of, in the past decades, even the countries of football schools that adopt the method of play eminently objective and standardized, are reviewing their styles with the goal to add other playful and subjective aspects, and by consequence, the possible raise of passion that arises more public interest to this sport modality, as for example, in England. This country is changing the historical monochromatic style of throwing air balls in the area, to their tall and strong forward players with excellent impulsion capacity use these quantifiable physical attributes to score goals (goal in English also means, objective, target). Ironically, it corresponds to identical terms used to established parameters and numeric indicators in the modern organizations.

Obviously, such changes happened due to the globalization and the economic, technologic and cultural integration, because in the main championships and leagues, not only in Europe but also in Asia and North and South Americas, Today we have players coming from several places in the world, what causes a merge and style diversity, as should be the management that uses the academic multidisciplinary knowledge, as described by Bennis and O'Toole (2005).

Foer (2005) shows us these two particularities present in this modality, once knew as Briton sport, when he describes the participation of Nigerian players, who the author calls "Brazilian footballers" from Africa, due to the common particularities like ingenuity, indiscipline and elegance with the ball, in teams from Ukraine, where there was present the miscellany of game style and sport cultures. He also refers to the small success achieved with the attempts to apply mathematical scientific techniques to the full development of the game. This author continues his analysis of Ukrainian football through the work developed by Coach Valeri Lobanovsky who coached Dinamo Kiev, and then national team from that country. Lobanovsky introduced a training methodology based in scientific Marxism, because he believed the game could be subdued through alleged mathematical principles. As a result, he created a numerical system corresponding to the main fundamentals of this sport, such as: passes, kicks and ball steals. This quantitative system privileges a frenetic and vigorous style, highlights the defense over the attack, since according to Lobanovsky rational criteria, provides more points to the defensive efficiency. Foer (2005) goes further; he searches in the historical roots of the orientation of this style of game in the old Soviet political regime, in the sense that both inhibit the individual initiative.

This inhibition to essential creativity of football in the numerical system applied by Lobanovsky could be understood by the simple fact that there was no numerical, point's evaluation, therefore, quantitative, nothing to measure the boldness or individual initiative, like a vertical pass to a unpredictable goal or a baffling dribbling, that emotionally shocks the opponent, events relatively ordinary in the Brazilian football. The Lobanovsky system would provide, surely, a higher punctuation to the willful players than for the creative ones. Is it not exactly what happens in most part of the modern organizations? Similarly, the current managers are applying some systems of rational and quantitative evaluation, incapable of capture everything that really matters.

Foer (2005) expands his analysis matching the role of Ukrainian coaches, whose Lobanovsky model illustrates the paradigm to be followed, with the old Communist Party, that impose the formations and central strategies and a standard and authoritarian culture to the administration, that in this particular case, is public, but which actions from the managers, essentially, are not different from the ones practiced by the private organizations. Once again, we can identify, in this sport analogy, intersection points with the modern organizations' reality.

Performed this analysis of football to be used in a sport analogy with organizations' field, we go to the second modality volleyball; that will be considered the carrier of components more objective and quantitative, though preserves by its sport nature, some emotional characteristics. The volleyball is statistical and mechanized, with calculated plays, intensively repeated, a sport with a predictable grade that seduce the quantitative analysts. There is no "zebras", what means, the unpredictability of a weaker team become the winner is almost null; the team more statistically quoted always win. Evidently, we exclude the results built outside the rules and the moral principles established by the game, what in a certain way, would be equivalent in the organizations to the actions devoid of intentions based in ethics, mission, company's view and current legislation, as mentioned by Chanlat about Enron, or still situations of rigorous physical, technical and tactical balance between the two teams. Here,

the strongest term can be detail quantified, parameterized, like the players height, the jump impulsion, the speed the players rise to the net, the straight they hit the ball or the number of synchronized blocks, what ironically, remembers a bit the Lobanovsky numerical system.

Then, we ask if this is the reason of the smaller success to attract more fans since it rises less passion than football, though, in special occasions, like in the Olympics, there is a growth in the public interest, since as previously mentioned, volleyball, because it is a sport modality, has a playful and competitive nature and it causes some kind of emotion. The volleyball predictability and the quantifiable features can be understood by its rationality of how to get the success; the winner must reaches three sets before the opponent, either by score of three – zero, three – one, or three – two. Each set or goal, previously quantified, has to be won. When it reaches twenty and five points, arises a small quantitative condition, so there is no subjective doubts relation to the winner superiority or to there is no possibility for the unpredictable to happen, the final difference in each set must be always bigger or equal to two.

As highlighted by Gil (1994), based in the historical work from Freyre, football is essentially democratic to its practitioners, both due to the biotype and the purchasing power. Such democracy does not find full space in volleyball, because, if the financial conditions do not represent an important obstacle to its practice, we cannot say the same to the physical features of its players, this modality, became a land of giants, even in amateur tournaments.

As initially proposed by this work, the details of mechanic of any of these two modalities will not be contemplated, however, to provide convincing arguments to the choice of volleyball as a sport that can illustrate, to the effect of this analogy, the particularities predominantly quantitative, we use the study from Cox (1974) of systematic analysis of volleyball actions. On this analysis, the author developed a numerical scale that goes from 0 (error) to 4 (full hit) to the main game actions and that try to identify if the quality of this actions had relation with the result obtained. In addition, aiming to reinforce the idea that volleyball is intrinsically carrier of features associated to quantitative, we use the work elaborated by Espa, Ferrer and Sundvisq (2000), that proposes the volleyball tactical study, with the nomenclature styling complex (K) and the sequence of actions, described in Chart 1:

Quantitative Study of Volleyball	
Complex	Description
KI	Actions that aim obtain one point when the opponent has the ball to serve (Reception, Set and Attack)
KII	Actions that aim obtain one point and keep the ball possession (Service, Block and Defense)
KIII	When the team finds itself obligated to defend and counter-attack, situation that saves some peculiarities, because, can happen immediately after KI or KII

Chart 1: Study of individual tactic actions in Volleyball
 Source: Espa, Ferrer & Sundvisq (2000)

Gouveia (2004) highlights that, in volleyball, the lines of reasoning facilitate a quantitative analysis as they try to organize the sequence the actions happen during the game. Still the add the reason we chose volleyball to illustrate the quantitative approach in this sport analogy, we highlight one more example of an analysis specific to a fundament or game action, the ball set. We translated it to the quantitative elements, according to Katsikadelli (1995), who makes a coding in four categories of type of balls that are set: the balls to the back-row players and to the ones to the first, second and third time of net. He subdivides also the analysis of balls set with or without the jump execution, verifying the execution of a jump during a set demand more speed in the attacks. Evidently, we must consider that volleyball is not exclusively quantitative, because this modality contains qualitative elements; inverse reasoning applied to football, the difference between them to this analysis in this work effect is to consider the predominant features.

This way, we highlight the elements to base this sport analogy, that contrast with a more emotional sport, less rational and difficult to quantify or to predict, the football, with another with opposite particularities, the volleyball, that as the first is current wide broadcasted in Brazil, with the modern management. It should be remember, that despite not being part of this work scope, there is the possibility of usage of other human knowledge areas as object of analogy to the best understanding of studies from modern organizations, considering the goal of reflection between the qualitative and quantitative approaches, like the work from Eisner (2008) in the education field, where he argues that not everything that matters can be quantified, and by extension, not everything that can measured is important.

The sport analogy also can collaterally contribute to the development of modern management in other fronts, for example, when we use Weineck (1999) concept:

A single modality cannot be developed alone all the coordinative capacities. Only several sport modalities ensure a general basic development of its coordinative capacities. For this reason, we must adopt in infancy a multisport formation, to matches these expectations. (WEINECK, 1999, p.554).

This statement can be matched to the ideas from Bennis & O’Toole (2005), who argue, at the same time, that management is formed from the subsidies of several academic disciplines. Therefore, taking advance of its sport analogy, we can consider the necessary learning to the full formation of the manager can be abstracted from the sportsman’s. That while this (the sportsman) must take a multisport formation, the first (manager) must take a multidisciplinary base. Such learning in management, that involves a manager’s more qualitative formation, can be matched with the structure of the relationship of a sport modality in question with other sport activities from Hagedorn (*apud* Bojikian, 2002), illustrated in figure 1:

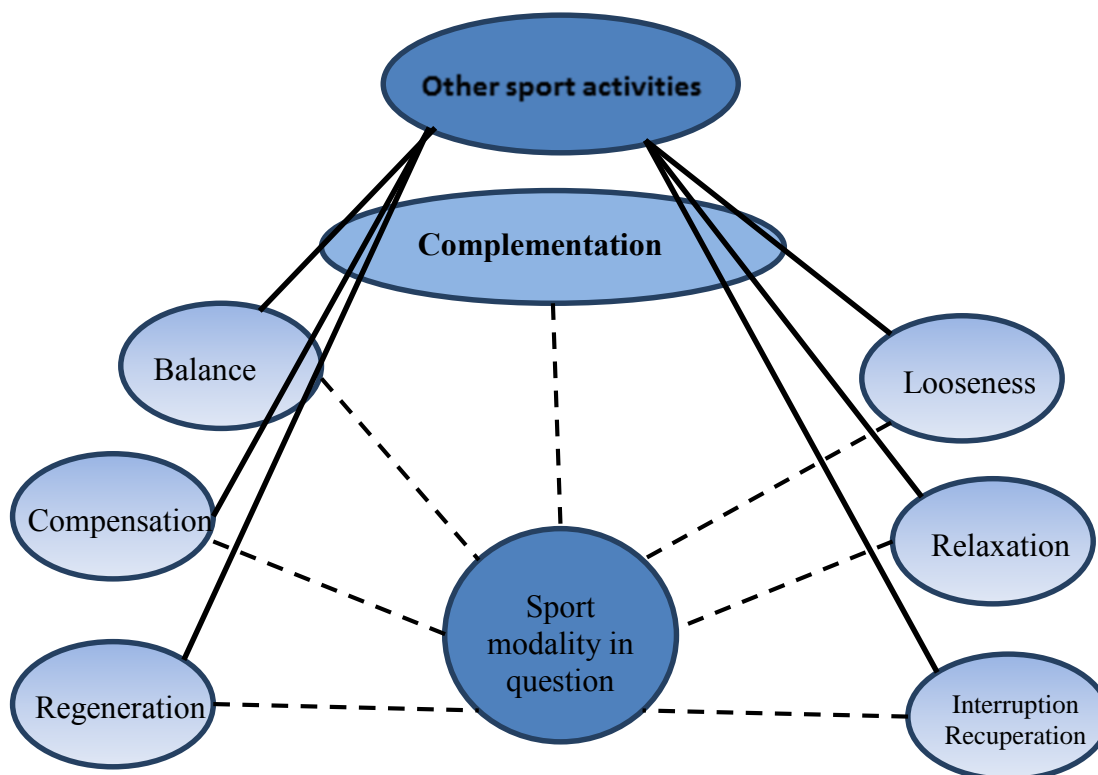


Figure 1: Relationship of a sport modality in question with other sport activities
Source: Bojikian (2002)

The predominantly quantitative features of volleyball can also be highlighted in the observation work of Butzen (2008) that, by using statistical indicators of athletes’ and their teams’ performance monitoring, try to use volleyball as a research object which goal is *data mining*, that by definition, are the systems to support decision, usually adopted by companies in the process of decision-making, besides being used in volleyball teams in order to generate better results.

The relevance of quantitative methods in volleyball, which allows establishing the parallel with the trend of modern management to value the quantitative indicators, is due to the fundamental role of *scout* in this sport modality, which is used to capture and process an expressive quantity of statistic information of individual and collective performance, in the own team, and in the opponent’s team, and after filter them and adjust them to the coach needs through the *data mining*. This way, monitor the athletes’ performance in the fundamentals, like service, defense, attack, block, reception. With this, it is possible to assist in the decision-making, in the elaboration of technical and tactical plans for service, set, spike; and how to avoid the types of plays from the opponent, according to Bernardinho (2006) and illustrated by the example in table 1:

Competição: Jogos Olímpicos	Local: Grácia
Nº do jogo: 8	Horário: 14:30h
Jogo: Brasil X Itália	Placar: 3 x 1
Data: 29/08/2004	

FUNDAMENTOS	SAQUE						BLOK		PASSE						CONTRA						ATAQUE						C + A		DEF		E	APV	
Atletas	SP	SD	SE	SF	Tot	%	BP	BC	PA	PC	PD	PP	Tot	%	CP	C	CN	CB	Tot	%	AC	AD	AF	AB	AE	Tot	%	Tot	%	DP	DN	Pto	
3. Giovane																																	
4. André H.		3	1	13	17	18	1	3							2	1			3	67	7			3			10	70	13	69			9
6. Mauricio																																	
7. Giba	3	4	4	12	23	30	2	1	12	1	3	2	18	67	4	5	2		11	36	12	1	2	4	2	21	57	32	50	5	1	1	6
9. Canha	1		3	3	7	14	1	3							4	4			8	50	5	1	4	3	1	14	36	22	41			4	
10. Escadinha									19		3	1	23	83																			
11. Anderson		2		1	3	67	1										1		1	0	2			2		4	50	5	40				
12. Nalbert				1	1	0																											
13. Gustavo	3	5	1	5	14	57	2	3							1				1	100	9					9	100	10	100			1	13
14. Rodrigo																																	
17. Ricardo		9		10	19	47	1																1			1	0	1			1	1	1
18. Dante	2	3	1	7	13	38	3	2	22	2	5	1	30	73	3	2			5	60	5		1	3	1	10	50	15	53	3	1	1	6
Equipe	9	26	10	52	97	36	11	12	53	3	11	4	71	75	14	12	3		29	48	40	2	11	12	4	69	58	98	55	11	4	3	48

Table 1: Statistic Analysis of volleyball fundaments.

Source: Bernardino, 2006.

The analogy of volleyball quantitative methods, represented by *scout* and *data mining*, affects in the organizations' world with the following parallels: team and company, opponent and competition, coach and manager, monitoring and people management or process management, performance and results, players' fundaments and employees' training, technical plan and operational plan; or with the use of common to both worlds terms: decision-making or tactical plans.

4. FINAL CONSIDERATIONS

The current model of management has valued, specially, the management by use of tools and techniques preponderantly quantitative, cannot be understood as enough, because, it is incapable to capture all the aspects involved in the different areas and functions of a modern organization, that, regardless its size, is insert in a competitive environment and in a global market, and it is formed by its human resources, clients, partners, suppliers and other *stakeholders*, with all different particularities, that reminds a democratic and rich formation of human profiles in a football team, than the line of a volleyball team, that is characterized in its first visual contact, by the selection of players through a quantitative indicator the height, measured in meters.

The numerical indicators are fundamental to the modern management, however, despite of being methodologically well built, are not enough for the strategic decisions from the managers, that can cause impact internally and externally to the organization, affects all the *stakeholders*, here compared to players, metaphorically; and define the course to be followed by the several, complex and turbulent economic, social and technological scenarios, which increasingly present difficult predictability.

The understanding of other activities, like sports or dramaturgy, or even from other fields of human knowledge, like education or literature, which are full of particularities that englobe the so-called volatile competences, can provide a significant contribution through the use of analogy, to the studies and researches of modern organizations' management. Increasingly and irreversibly, these are incorporated in a global business environment, with the most different players, the *stakeholders*, being part of this complex game, where the multidisciplinary, the heterogeneity and the importance of qualities, that analogously, are often associated with the football practice than the volleyball's, can be an interesting and necessary complement to the numerical indicators from the quantitative world, predominant in the current management model.

New researches in the area are essential to the development of the theme and to the deployment of its main ideas, between them, a particularization to Brazil's case, where a possible comparative analysis of the Brazilian football player features specifically regarding the managing method from the manager from here. Would that be, in some level, potential carrier of the same emotional and subjective features of their fellow citizens footballers? Would there be a Brazilian paradigm of management (NOGUEIRA, 2007), that could be studied through the prism of other sport analogy, direct and exclusively related with football, in view of a common repertory, that could be used to understanding these two social phenomena?

Finally, it seems evident that we cannot understand the modern management using only quantitative approach, though necessary, it is not enough. However, when we attach a qualitative approach to the first, we can also apply in an error or in a strategic insufficiency, if it is not done in a transdisciplinary and plural method. If this advance is possible, activities that, current, do not have a well acknowledged visibility in the academic and organizational

worlds, will be able to, in the future, contribute to the scientific development in the management area, like, for example, football. This, by game structure, integrative, qualitative, democratic, plural, rich in distinct human figures and for being too familiar and intelligible to culture and to Brazilian societies, can bring new paths to its own management from here, that exceeds the limits between the hierarchical and closed specialties; and that establishes other paths, that allow combine qualitative and quantitative aspects, because, any knowledge area can pretend to reach the ultimate truth of definitive knowledge (CARDOSO; SERRALVO, 2008).

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