

# Who is the Best?

## Performance Evaluation of Countries in International Judo

Leandro **MAZZEI**<sup>1,2</sup>; Flávia da Cunha **BASTOS**<sup>2</sup>; Veerle **DE BOSSCHER**<sup>3</sup>; Maria Tereza **BÖHME**<sup>2</sup>

1: University Nine of July (São Paulo, Brazil), 2: School of Physical Education and Sport of University of São Paulo (São Paulo, Brazil) 3: Vrije Universiteit Brussel (Brussels, Belgium)

### Introduction

In the logic of contemporary high-performance sports, like Judo, specialization and professionalization are inevitable due to strong competition and the pressure for success (Beamish & Ritchie, 2006).

But what can be considered a success in international high performance sports? Traditionally, success in high performance sports means winning medals at major international events.

Frequently are used to evaluation success in sport medals table: something that is easy to understand although it has limitations making wrong, or superficial analysis. In other cases, medals won are relativized with geopolitical data (GDP, HDI, etc.), but, this variables that are beyond the control of Judo performance directors, not making possible the development to achieve international success.

The development and utilization of appropriate methods to evaluate the performance has become an important issue and is essential for Judo National Governing Bodies (NGB) to analyze, understand their performance and improve their goals and plans in major international Judo events.

### Objectives

The aim of this study is to propose consistent methods for evaluation performance in international Judo.

### Methodological Procedures

In this study it was verified the Judo performance at London 2012, considering the comparison between medals table, total medals won, points system and market share adapted to the sport (Shibli et al., 2013).

The first method, total number of medals, considers the total medals won by a country. Despite being a far more fair compared to the medals table, is a limited extent, because it does not take into account the quality of the results. Alternatively, the points system considers the relative value of medals. The third method is considered a more realistic measure of performance is the market share, that is to say, the proportion of points earned by the total of points available to be won.

To calculate points and market share the following scores for each place winning by an athlete: 1st = 10, 2nd = 6, 3rd = 4, 5th = 2, 7th = 1.4 points. This scores is based on the IJF World Ranking (IJF, 2013).

### Results

Table 1

	More gold medals	More medals	More athletes in the top 8	Relative results
	Medal Table	Total Medals	Points System	Market Share
1	RUS  3	FRA  7	JPN  45,4	JPN  10,5%
2	FRA  2	JPN  7	RUS  44,2	RUS  10,4%
3	KOR  2	RUS  5	FRA  42	FRA  9,7%
4	JPN  1	BRA  4	KOR  36,8	KOR  8,5%
5	CUB  1	GER  4	BRA  27,4	BRA  6,4%
6	BRA  1	KOR  3	CUB  23,4	CUB  5,4%
7	USA  1	CUB  3	GER  20	GER  4,6%
8	SLO  1	USA  2	USA  17,4	USA  4,0%
9	GEO  1	ROU  2	HUN  15,4	HUN  3,6%
10	PRK  1	HUN  2	CHN  14,8	CHN  3,4%

Considering the results of all methods, will have the following classification: 1º JPN and RUS, 3º FRA, 4º KOR, 5º, BRA

6º CUB, 7º USA, 8º HUN, 9º SLO, 10º CHN, GEO, ROU, PRK

The points system and the market share system adapted for judo brought interesting results, because it considered the quality and quantity of the medals, the number of athletes who have real chance to medal and the relative performance of each country during the analyzed event.

### Discussion and Conclusions

This methods can be controlled for Judo NGBs making possible the development of policies to achieve international. Also its possible to measure the Effectiveness (defined as the capacity to achieve the goals) and Efficiency (generally establishes a relation between the inputs and the outputs produced).

In London 2012, effectiveness can be seen in the table 1 of results. But with respect to efficiency the table 2 brings interesting results:

	Country	Athletes in L2012	Possible points	Points won	Efficiency
1	PRK	1	10	10	100%
2	RUS	12	120	44,2	37%
3	USA	5	50	17,4	35%
4	JPN	14	140	45,4	32%
5	FRA	14	140	42	30%

However, a larger number of high level athletes participating in an event provides a greater chance of good results. Besides, in the case of Olympic Judo, more athletes participating in the Olympic Games represents the strength of a country in the international context of this sport (World Ranking Criteria).

Sports like Judo are just one example among many others. In general high performance sports represent an international trend – more and more countries are investing and seek success in major world sporting events. And different countries have developed the ability to win medals and to obtain good results in the international context (De Bosscher et al., 2008, Shibli et al., 2013).

The development and utilization of appropriate methods to evaluate the performance in high performance Judo has become an important issue for both managers and academic researchers. It is essential for Judo and for NGBs to analyze, understand their performance and improve their goals and plans in major international events.

### References

- Beamish, R., & Ritchie, I. (2006). Fastest, highest, strongest: a critique of high-performance sport. New York; London: Routledge.
- De Bosscher, V., Heyndels, B., De Knop, P., Van Bottenburg, M., & Shibli, S. (2008). The paradox of measuring success of nations in elite sport. *Revue Belge de Géographie - BELGEO*, (2), 217–234.
- International Judo Federation. (2013). IJF World Ranking List. Retrieved from [http://www.intjudo.eu/upload/2013\\_04/04/136509534452935975/ijf\\_wrl\\_2013\\_04\\_02.pdf](http://www.intjudo.eu/upload/2013_04/04/136509534452935975/ijf_wrl_2013_04_02.pdf)
- Shibli, S., De Bosscher, V., Van Bottenburg, M., & Westerbeek, H. (2013). Measuring performance and success in elite sports. In P. Sotiriadou & V. De Bosscher (Eds.), *Managing High Performance Sport*. London; New York: Routledge.