

Elite sport success strategies: a case study of nations' performance in the Commonwealth Games

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Abstract keywords

Elite sport; performance analysis; specialisation; diversification.

Aim of abstract/paper - research question

This paper explores the strategies used by nations to achieve elite sporting success. In particular, the purpose of the paper is to understand the approaches adopted by nations to win medals in multi-sport multi nation competitions. The event under investigation is the Commonwealth Games. In broad terms, a nation's strategy might range between specialisation (e.g. focusing on a limited number of sports to achieve medal targets) and diversification (e.g. widening the base of sports in which to target medal success).

Theoretical background or literature review

Previous research on the Commonwealth Games has considered the home advantage phenomena and causal factors (Ramchandani and Wilson, 2010, 2011, 2012). However, there is a growing awareness in academia about the relationship between strategic investment in elite sport and sporting success. Indeed, several nations have shown that accelerated funding in elite sport can lead to an increase in medals won at the Olympic Games (De Boscher *et al.*, 2008). It is therefore not surprising that public sector agencies around the world provide considerable financial support to their elite sport programmes. A critical question, however, is how nations can maximise return on their investment in elite sport in terms of medals' output? In this context, it is a worthwhile exercise to examine the policies that nations' employ in their efforts to succeed in elite sport competitions.

Methodology, research design and data analysis

The research uses nations' performance data relating to the most recent edition of the Commonwealth Games (Delhi 2010), collated from the official website of the Commonwealth Games Federation (www.thecgf.com). The performance data provides the basis for three types of analysis, outlined below.

1. *Market concentration:* This is a measure of the reliance of nations' medal success on a limited number of sports. For the purpose of this research, the indicators of market concentration include: the proportion of gold and total medals won by nations' in their single most successful sport (in a given edition); their three most successful sports; and, their five most successful sports.

2. *Sports medalled in:* This measure examines the number of sports in which a nation wins a medal relative to the total number of sports contested in a given edition.
3. *Success by gender:* This considers the reliance of overall medal success on events contested by men, women and both men and women (i.e. mixed) events.

For each measure, nations who did not win any medals were treated as being 'non-competitive' and excluded from the analysis. Thus, only medal winning nations were eligible for further scrutiny. Of the 71 nations that participated in Delhi 2010, across 17 sports, 24 won at least one gold medal and 36 won a medal of any colour.

Results, discussion and implications/conclusions

The key findings emerging from the analysis undertaken to this point are summarised below:

1. 11 of the 24 nations (46%) achieved all of their gold medal success in one sport. This statistic increases to 67% and 75% when nations' top-three and top-five most successful sports are respectively examined. The corresponding figures for total medals (n=36) are broadly comparable - 33% (top); 64% (top-three) and 75% (top-five). This is indicative of relatively high market concentration amongst medal winning nations i.e. over-reliance on few sports to achieve medal success.
2. Only 2 of the 24 nations (8%) that won a gold medal did so in more than 50% of the sports contested (i.e. nine or more sports). The corresponding statistic for total medals is higher, at 17%, but still, these figures strongly suggest that the majority of medal-winning nations tend to specialise in a minority of sports.
3. Analysis by gender reveals that for the most nations, 67%, overall gold and total medal success is delivered primarily through 'men only' events. By contrast, 'mixed' events contested by both men and women account for less than 25% of nations' overall gold and total medal success.

These findings provide an insight into the strategies adopted by medal-winning nations in the Commonwealth Games and set the scene for more longitudinal work to examine changes over time. Moreover, it also would be a worthwhile exercise to explore further the identities of the nations that specialise and those that diversify in order to better understand which strategy might be associated with better medal outcomes.

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