

# ELITE SPORT POLICIES AND INTERNATIONAL SPORTING SUCCESS: A PANEL DATA ANALYSIS OF EUROPEAN WOMEN'S NATIONAL FOOTBALL TEAM PERFORMANCE



Maurizio Valenti \* Nicolas Scelles \* Stephen Morrow

## ABSTRACT

**Research question:** While national sporting governing bodies are encouraged to implement programmes which seek to enhance their international sporting success, comparative studies on elite sport policies have provided limited empirical evidence in support of the relationship between such programmes and the achievement of sporting outcomes. Following the SPLISS framework, this study examines the longitudinal impact of four programme-level factors – financial support, human resources, coaching provision and foundation phase activity – on the international success of women's national football teams.

**Research methods:** Data from 55 Union of European Football Associations' (UEFA) members were collected over a seven-year period (2011-2017). The associations between programme-level factors and FIFA ranking points are verified through panel regression analyses. Controls for economic, talent pool, political, socio-cultural, climate and men's football legacy variables are included.

**Results and findings:** The results reveal that highly specialized coaching provision has a significant and positive impact on international success in women's football, while our proxies for financial support, human resources and foundation phase activity have no notable explanatory power for the success of women's national teams. A country's economic development, talent pool, climate and men's football legacy are significant predictors of its women's football performance level.

**Implications:** This paper offers practical insights into the organization and management of women's football in UEFA nations and contributes to the theoretical debate on comparative analysis of the sporting performance of countries. This article confirms that an exclusively quantitative approach does not permit definitive conclusions to be drawn on the complex relationship between elite sport policies and international sporting outcomes.

This is a summary of a published paper, that should be referred as follows:

Valenti, M., Scelles, N., Morrow, S. (2020). Elite sport policies and international sporting success: A panel data analysis of European women's national football team performance. *European Sport Management Quarterly*, 20 (3), pp. 300-320. DOI: 10.1080/16184742.2019.1606264.

More information – download more research papers  
© www.SPLISS.net

## STUDY HIGHLIGHTS

- Although literature has reported an increasing degree of convergence and homogenisation between elite sport systems in different countries, this study highlights that there are still large differences in the development of women's football across European countries;
- The success of women's national football teams significantly benefit from specialized coaching provision in the short-term;
- A country's international performance in women's football is mainly predicted by its economic development and size of talent pool;
- Factors such as financial support, the availability of human resources and the promotion of links between women's football clubs and schools have no explanatory power for the international success of countries in the women's game.

## IMPLICATIONS

- Countries interested in increasing their levels of international performance in women's football should invest in coaching expertise and specialism;
- Comparative analysis of sporting nations relying exclusively on quantitative data presents challenges to examine the full complexity and richness of elite sport systems and international success;
- Predictors of international success in women's football mainly derive from differences across countries, while less importance can be attributed to changes occurring within each country.

All independent variables considered in this study displayed significant correlations with the international success in women's football (Table 3). A strong correlation between talent pool and sporting success (0.83) was expected. Also, the strong association between democracy and economic development (0.78) was predictable. All programme-level factors displayed low to moderate levels of correlation with each other, ranging from 0.11 to 0.48.

**Table 3.** Correlation matrix of selected variables.

	1	2	3	4	5	6	7	8	9	10
1 Women's performance										
<i>Programme-level</i>										
2 Financial support	.77*									
3 Human resources	.48*	.51*								
4 Coaching provision	.34*	.33*	.11							
5 Foundation phase	.21*	.27*	.21*	.24*						
<i>Country-level</i>										
6 Economic development	.48*	.40*	.15*	.18*	.06					
7 Talent pool	.83*	.82*	.46*	.31*	.16	.39*				
8 Climate	.21*	.19*	.09	.00	.04	.20*	.24*			
9 Democracy	.43*	.37*	.10	.29*	.22*	.78*	.49*	.03		
10 Gender equality	.38*	.27*	.13*	.21*	.09	.36*	.20*	.40*	.36*	
11 Men's football legacy	.68*	.59*	.32*	.35*	.11	.15*	.66*	-.07	.30*	.04

Note: 1-year lag is used for Financial support, Human resources and Coaching provision; 5-year lag is used for Foundation phase.  
\* $p < 0.05$ .

*An empirical approach was applied to test the longitudinal relationship between a country's sport programmes and its outcomes in high performance sport both in the short- and long-term.*

Table 5 reports the results of the regression analyses examining the short-term effect of programme-level factors on international women's football outcomes (Models 1 and 2). These are limited to the configuration with one-year lag for coaching provision due to regressions with other programme-level variables with lag higher than one-year providing non-significant results (Prob > F is higher than .05). Model 3 includes only country-level variables.

**Table 5.** Panel regression tests for predictors of women's football performance.

	Model 1		Model 2		Model 3	
	Coeff. (SE)	Sign.	Coeff. (SE)	Sign.	Coeff. (SE)	Sign.
Coaching provision	13.68 (6.69)	**	13.68 (7.01)	*		
Economic development	87.21 (20.34)	***	87.21 (32.57)	**	88.01 (20.49)	***
Talent pool	14.85 (5.08)	**	14.85 (10.79)		15.66 (5.13)	**
Climate	1.09 (.52)	**	1.09 (.79)		1.07 (.52)	**
Democracy	3.17 (11.99)		3.17 (16.18)		2.46 (12.07)	
Gender equality	1.73 (1.25)		1.73 (1.77)		1.81 (1.27)	
Men's football legacy	.05 (.01)	**	.05 (.02)	**	.05 (.01)	**
Constant	319.33 (180.20)	*	319.33 (292.63)		310.38 (181.17)	*
Observations		258		258		258
Groups		48		48		48
Within-R <sup>2</sup>		.01		.00		.00
Between-R <sup>2</sup>		.54		.54		.54
Overall-R <sup>2</sup>		.52		.52		.52
rho		.91		.91		.91

Note: Displayed are the coefficients (standard errors in parentheses) of random-effects estimator (through the command xtreg in Stata). Panel variable is country and time variable is year. 1-year lag predictor is used for Coaching provision. Results of Model 2 are based on bootstrap with 1,000 replications. The dependent variable is: Women's football performance.

\* $p < 0.10$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.001$ .

- Coaching provision significantly and positively affects women's football performance in the short-term;
- Economic development, talent pool and men's football legacy are found as significant predictors of women's football performance with the expected signs based on previous literature about international success in women's football;

- The positive sign for climate in Models 1 and 3 indicates that countries that are far from 14°C perform better in women's football. This finding supports the expectation that colder countries are more successful in women's football.
- Gender equality has a non-significant impact. However, the results of a separate model excluding climate presents a significantly positive coefficient for gender equality.