Determinants of fitness firms' growth in Portugal

Empirical Evidence Using Panel Data Models

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Keywords: Financing, Fitness Firms, Growth, Sport Management, Labour Productivity, Panel Data, Sport Policy.

Aim of the paper

The main focus of this paper is to understand the determinants for growth in small and medium fitness firms; we consider this knowledge will help entrepreneurs and sport policy makers sustaining this market for socioeconomic and health reasons, reducing a number of implied public costs.

Literature

Regular physical activity develops the sense of community and belonging with context gains that will promote economic development and identity in population national representation (Chalip, L, 2005). Fitness industry has potential to grow in the EU and fitness firms are able to provide distinct services adapted to several market segments (Woolf, J., 2008). Being good for economic development and possible to be adapted in different economic activities, few is known about its key profitability determinants.

In the past eight years we found an extraordinary increase in the number of these types of firms operating in Portugal (higher than national average). Fitness centres have a special significance to improve and contribute to increase the global population physical activity, to better off their quality of life and to minimize health costs; in a certain way they grew based upon fashion and not reliable economic knowledge; therefore, knowing the determinants of these firms is important to help the market determine the minimum scale of efficiency to survive and operate a long time in this difficult market.

Most of the empirical studies on firm growth try to explore the relationships between growth and size, growth rate or firm age and the results have been non clearly conclusive, tests being either statistically positive or negative (Lotti et al., 2009). Other authors tried to explore the relationship between firm growth and internal financing concluding that financing constraints play a very harmful role on their growth (Fagiolo and Luzzi, 2006).

Although we do not focus on the causality effects, this paper is innovative in the field of firm growth (we use a broad set of determinant variables) and original while we have no knowledge on its application in the sport management field.

Methodology - database

To explore the relationship of firm growth with possible determinants we used 1) dimension, 2) age, 3) internal financing (cash-flows), 4) indebtedness, 5) interest payments, 6) public subsidies, 7) growth opportunities (intangible assets) and 8) labour productivity. Database is composed by 182 small and medium-sized fitness firms for the period 2004-2009. In order to avoid unbiased results due to the firm survival problem, we used the two-step procedure proposed in Heckman (1979).

Results - discussion

Empirical evidence allows us to conclude that in this type of firms: *i*) growth of fitness firms decreases with increasing size and age, indicating that fitness firms are looking to achieve a minimum efficient scale to survive in their markets; *ii*) internal finance, debt, and government subsidies are stimulating determinants of fitness firms growth, revealing that in addition to internal financing, access to credit are relevant funding sources to their growth; *iii*) paying interest obligations is a constraint determinant of fitness firms growth, which is an indicator higher difficulties during high interest rate cycles; *iv*) labour productivity is a stimulating determinant of fitness firms growth, requiring more qualified labour; and *v*) growth opportunities, measured by intangible assets variables, are not stimulating or constraining determinant of fitness firms growth, indicating that such firms can not substantiate their growth opportunities in effective growth. Other empirical evidence obtained in this study show us that the size, age, internal finance, labour productivity, and government subsidies, contributing to the increased survival possibilities of fitness firms, while interest debt to pay contribute to decreased survival possibilities of fitness firms.

For policy makers, given the small size of such firms and considering its importance to improved health and welfare of the population, we recommend in situations of insufficient internal financing, to promote special credit lines with reduced interest rates may be of particular relevance to the growth of this type of firms, contributing in order to reach a minimum efficient scale that enables them to survive in their markets. For managers/owners of fitness firms it is recommended a more effective utilization of their intangible assets (*e.g.* social networks) in order to transform their growth opportunities in effective growth.

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