

THE ECONOMIC-FINANCIAL PERFORMANCE OF THE ITALIAN SPORTING GOODS INDUSTRIES*
PERFORMANȚA ECONOMICO-FINANCIARĂ A INDUSTRIILOR ITALIENE DE ARTICOLE SPORTIVE

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Purpose - Despite the pandemic, sports enthusiasts have not stopped playing sports, albeit in forms other than their usual ones. What will happen in the years post-Covid 19? This research analyzes aspects of the economic and financial dynamics of the main Italian industries that produce sporting goods, also to identify a possible future trend. The experience of the recovery after the 2008 crisis could provide significant indications.

Methodology - The balance sheets of 262 Italian companies, with a turnover of more than 800,000 euros, for the decade 2010-2019 were analyzed, calculating and illustrating average Roe and Leverage trends. The regional distribution and the different forms of companies were quantified. The size was measured by the number of employees. The data were statistically processed to gather as much information as possible.

Results: - The companies analyzed are small, mainly located in the northern regions. They have high profitability, albeit variable, but are significantly indebted.

Implications - All stakeholders of the companies can get useful information. Entrepreneurs can compare the situation of their company with the average situation in their industry. Similarly, employees, suppliers, and customers. Banks can evaluate possible soft financing policies. Public policies should be attentive to the sector that prevents diseases resulting from sedentariness. The Italian situation can be a useful reference for all countries that want to develop industries in this sector, considering sport important for their population.

Keywords: Performance, Roe, Leverage, Descriptive statistics.

Scop - În ciuda pandemiei, pasionații de sport nu au încetat să facă sport, deși în alte forme decât cele obișnuite. Ce se va întâmpla în anii post Covid 19? Această cercetare analizează aspectele economice și financiare în dinamică ale principalelor industrii italiene producătoare de articole sportive, pentru a identifica, de asemenea, o posibilă tendință viitoare. Experiența de redresare după criza din 2008 ar putea oferi indicații semnificative.

Metodologie - Au fost analizate bilanțurile a 262 de companii italiene, cu o cifră de afaceri de peste 800.000 de euro, pentru deceniul 2010-2019, calculând și ilustrând tendințele medii ale Roe și Leverage. Au fost distribuite regional și cuantificate diferite forme de companii. Dimensiunea a fost măsurată cu numărul de angajați. Datele au fost supuse unei prelucrări statistice, pentru a aduna cât mai multe informații posibile

*This paper is the result of collaboration between the two authors. However, it is possible to attribute the paragraph "Introduction" to Francesco Fontana. The other paragraphs are by Diletta Migliaccio.

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Rezultate: - Companiile analizate sunt de dimensiuni mici, situate în regiunile nordice. Acestea au o rentabilitate ridicată, deși variabilă, dar sunt semnificativ îndatorate.

Implicații - Toate părțile interesate de aceste companii pot obține informații utile. Antreprenorii pot compara situația companiei lor cu situația medie din industria lor. În mod similar, angajații, furnizorii și clienții. Băncile pot evalua posibilele politici de finanțare soft. Politicile publice ar trebui să fie atente la sectorul care previne bolile rezultate din sedentarism. Situația italiană poate fi o referință utilă pentru toate țările care doresc să dezvolte industrii în acest sector, considerând sportul important pentru populația lor.

Keywords: Performanță, Roe, Efect de levier, Statistici descriptive.

JEL Classification: M10, M19, M40.

Introduction

The economics of sport is an area of research that has been growing for about two decades. The importance of the sports industry to national economies, together with the availability of data, has made the study of the economics of sport useful in answering research questions of academic and professional interest.

Sport, and in particular the sporting environment, has undergone significant changes.

While business continues to evolve along ordinary lines, Sports Finance and Management (Millis et al., 2018) which considers the business management of businesses in the sector (Brown et al., 2021) has undergone a rapid rise. It deals with strategic management, sustainable financing, youth training with numerous solicitations for socialization among participants (Hoye et al. 2018). These are all elements that allow a producer company to stand out as much as possible from others.

The social significance and commercialization of sport, the use of new technologies and organizational structures, and the involvement of various stakeholders are more important today than ever before (Adámik et al., 2021). This has prompted new protagonists (children and the elderly) to enter the competitive sport context by qualifying as users of the sports industry and has encouraged the creation of new applications with health purposes that are increasingly useful for the average consumer (Cherubini, 2015).

Apps are an effective new channel for reaching new target customers. They are used by users who are more inclined to purchase than others, especially those who only follow events, without playing them directly. They, therefore, allow the industry to identify customer segments that are already linked to the world of sport and therefore more inclined to purchase sports equipment and related goods and services related to performance monitoring, the results of particular diets, etc.

The relevance and size of the sector have generated needs that are promptly met by entrepreneurs in the sector, who have helped to provide the necessary tools for a successful business (Beech and Chadwick, 2013).

Studies on the economics of sports require a technical and statistical approach, to analyze current and expected scenarios (Cuneen and Tobar, 2020), while also considering their particular characteristics (Abrams et al., 2011).

Managers and professionals are faced with major challenges, achieving results in the short term, and considering specific issues such as seasonality and the age of workers. Also of great importance is the study of the behavior of fans as the main consumers.

For this reason, economic-statistical approaches are needed to identify those who are most sensitive to sporting events and to build a sporting environment around them that will make them spend money on their passion. Human Resource Management (HRM) in sport involves the analysis and management of human resources particularly related to sport issues (Rosner and Shropshire, 2010).

Each context is developed according to a strategic approach to maximize profits from sporting events, while always meeting the sometimes very specific needs of fans.

This approach must also take into account social responsibility (Carbo, 2017), as an extremely relevant factor for brand awareness.

For the sports industry, marketing is as essential as for any other organization.

It is of great interest to any company how consumers view and are aware of its brand. Brand recognition is often linked to success (Schwarz and Hunter, 2017) and it could be a huge disadvantage to have negative or lower brand awareness compared to competitors (Blakey and Seymour, 2020), especially in the world of sport where competition is keen.

Another relevant aspect for the manufacturing industry is the consumer's opinion on health and fitness. The world of sport, it is repeated, significantly influences the ideas of its fans (O'boyle, 2015). Influencers can change the opinion of a large proportion of consumers, especially if several athletes agree and take certain positions. Hence, the industry needs to monitor the behavior of athletes (and not simply the interests of consumers) as in many cases the interests of fans are a direct consequence of certain actions taken by sports stars. This may make it easier for the industry to manage products, logistics, sales, promotions, and social channels, and to implement an effective and efficient long-term plan of action.

In this articulated situation that is progressively developing, this study aims to identify the geographical, dimensional, and economic-financial characteristics of the Italian sports industry, limiting the analysis to those companies that produce sporting goods, which are strongly conditioned by the diffusion and success of the show that spreads the desire to practice such activity in one's free time or even as a profession.

Although limited to the Italian context, the research is nonetheless of international interest, considering that the nation has similar characteristics to many other countries and that some sports such as football are very popular, achieving remarkable results in the international arena.

Literature Review

As is evident from the introduction above, the main literature focuses on the theories and practice of sport management within functional areas of business such as finance, human resource management, marketing, and strategy. Fundamental issues such as risk management, sponsorship, retail, social media, and sports betting are considered as a whole.

The main international economic contributions also dwell heavily on the economic-technical aspects of sporting goods production. This is the case, for example, with the recent contribution by Emerson and Hall (2021), which focuses entirely on design for ergonomics in the bicycle industry, which is constantly looking for materials and designs that maximize results, without neglecting comfort for the cyclist. The ideal would be to design bikes according to the specific needs of each person. However, this is very expensive, so you have to think about standardized production processes that utilize all aspects involved in the sport.

This is similar to the effort of Padi et al. (2020) who instead studied the mechanical properties, such as flexural strength, of certain fibers, mainly of plant origin, which are widely used in the manufacture of sports articles. Thermo-plastics have also been investigated to produce optimal golf clubs (Schuster, 2002). At the same time, there is a great deal of research into elastomeric fabrics (No Author, 2001) and high-tech fabrics (Mayer et al., 1989) used for swimwear and sportswear in general.

Alongside the more numerous studies of economic production techniques, studies are also being developed on the impact of sports articles on the environment. Continuous product innovations have shortened the life cycle of sports products and consequently increased waste disposal rates (Subic et al., 2010). This makes it necessary for companies to raise their awareness and look for environmentally friendly products.

The issue of social sustainability is mainly taken care of by scholars from countries where there is a risk of exploitation of women and children. This is, for example, the case of India, which has a mega-industry dedicated to the production of sporting goods, the production and export of which is monitored

by a special public authority that must also prevent the risk of exploitation of the most fragile people (Soni et al., 2016).

From the brief literature review, it is clear that there is a lack of studies focusing on budgetary findings, especially referring to a small but dynamic nation like Italy.

The purpose of the research

The lack of specific studies on the structural characteristics and economic-financial performance of the Italian sporting goods industries led to this study, which aims to verify two fundamental hypotheses.

H1) The companies operating in Italy have high profits, considering that the practice of sport is widespread and tends to be more and more practiced, even considering the stimuli that derive from medical science, which considers dynamism necessary to prevent the most serious pathologies;

H2) they are also characterized by optimal financial equilibrium, as a result of the profitability which is presumed to be high, even as a result of the probable self-financing policies and public facilities which are sometimes typical of sports credit.

To verify the correctness of these hypotheses, a detailed study is proposed that aims to answer five questions that outline the characteristics of the industrial activities under analysis:

- RQ1: where are the companies producing sporting goods mainly located? The answer to this question is preliminary to any other consideration, especially since the Italian territory presents considerable social, cultural, and economic heterogeneities that also affect the management of Italians' leisure time, and therefore their sporting activities. It is well known that the North, especially due to historical events, is richer and better organized than the Centre and especially the South.

- RQ2: What is the most common legal form? This information is only apparently limited to formal aspects. The different types of companies often reflect their size and, above all, their different degree of acceptance of entrepreneurial risk. Moreover, the complex Italian legal framework presents different forms of stakeholder protection in case of crisis.

- RQ3: What is the average size of the industries in question? The Italian production context is, in fact, often characterized by small and medium-sized production units, often family-run. The answer to this question, therefore, provides a significant picture of the desirable economies of scale that often go hand in hand with medium to large size. However, they also have well-known drawbacks such as more difficult management, especially in times of economic crisis.

- RQ4: How has the profitability of these companies evolved over the last decade? Through the analysis of the trend of a balance sheet index, it is possible to understand the evolution in the medium to long term of the profitability of these companies, which is presumed to be high, considering that those who practice sport are generally more inclined to equip themselves with the necessary equipment, even if they face significant economic sacrifices. This question responds more directly to the first hypothesis to be verified, obviously interpreting the result of the analyzed index in the structural framework of the sector outlined above.

- RQ5: How has the financial structure evolved over the last decade? The answer to this question allows verifying the correctness of the second hypothesis. It is placed at the end because it must be interpreted within the broader national economic context and also because the degree of indebtedness grows in the presence of modest profitability that does not allow self-financing processes that have always characterized Italian small and medium-sized enterprises.

Research methodology

The answer to the five research questions and the evaluation of the two hypotheses were possible through quantitative analyses of the data of a significant sample of companies surveyed in the Aida database of the bureau van Dick, with a turnover of more than € 800,000.

To obtain the information to be processed, we first determined the Ateco code that is common to all the companies in the sector. The code is 32.30.00 and is associated with the description:

"Manufacture of sports goods". This code is part of the broader grouping C dedicated to Italian manufacturing activities.

The search on the Aida database identified 262 companies, many of which communicated the data needed for the survey.

Exporting the data to Excel made it possible to obtain the most important aggregate information relating to territorial distribution by focusing on the region in which the registered office is located, the legal form, and the size measured by the size of the workforce, as well as some descriptive statistics. The processing of the information has also made it possible to trace the ten-year trend (2010-2019) of two balance sheet ratios: Roe (net profit/net equity), which expresses profitability, and leverage (total assets/net equity), which measures debt.

Everything is proposed in numerical tables and, where possible, with more incisive graphical representations.

Main results

Geographical distribution

The 262 companies in the sample are distributed in the 20 Italian regions as shown in table 1.

Table 1 Geographical distribution

Lombardy	56	Trentino-Alto Adige	10
Veneto	54	Campania	6
Emilia-Romagna	34	Apulia	4
Piedmont	16	Sicily	4
Tuscany	13	Calabria	3
Abruzzo	12	Umbria	3
Marche	12	Aosta Valley	3
Friuli-Venezia Giulia	11	Basilicata	0
Liguria	11	Molise	0
Lazio	10	Sardinia	0

Most of the enterprises are located in the northern and then in the central regions. Very few, on the other hand, are located in southern and island Italy. This response to the first research question and reflects the typical characteristics of a territory that highlights the different vocation for entrepreneurial activity in terms of culture and also for infrastructures that are more lacking in the less well-endowed areas. The distance from the richest countries in central and northern Europe also penalizes the regions located in the south.

The legal form

Table 2 shows the clear prevalence of ordinary limited liability companies (188), in addition to 34 single-member limited liability companies and 17 simplified limited liability companies.

Table 2 Legal form

S.R.L.	188	S.P.A. single member	4
S.R.L. single member	34	S.A.S.	2
S.R.L. simplified	17	S.N.C.	1
S.P.A.	10	S.C.A.R.L.	1
S.C.A.R.L.P.A.	5	Total	262

On the other hand, there are fewer joint-stock companies, which are normally typical of the larger sizes, even though the quantitative figure is measured about the number of employees, as explained below.

The number of cooperative societies and partnerships (Sas and Snc) is much smaller.

The choice of the limited liability company form confirms the validity of the legal framework governing them, which favors business activity by limiting risk and also administrative requirements.

Size

The assessment of the size of the company could be carried out according to different parameters. Very often the study of turnover, or that of investments, both however expressed in euros.

Considering that the subsequent quantitative study was made by analyzing the trend of some balance sheet indices, it was preferred to estimate the size using a physical datum: the average number of employees of each year. Table 3 provides the data.

Table 3 The number of employees

Trend			Descriptive trend statistics		Trend graph
Year	Observations	Average	Type	Value	
2010	119	16	Average	17,6	
2011	142	18	Standard error	0,4	
2012	154	19	Median	18	
2013	158	19	Mode	16	
2014	165	16	Standard deviation	1,265	
2015	171	16	Sample variance	1,6	
2016	175	19	Kurtosis	-1,663	
2017	184	17	Asymmetry	-0,28	
2018	184	18	Interval	3	
2019	181	18	Minimum	16	

Source: our elaboration on Aida data.

The first columns are devoted to data for the decade. As mentioned above, information is not always available for all enterprises. Therefore, one column is dedicated to the number of observations that were possible. The next column, on the other hand, shows the average number of staff employed in the companies. Then the main descriptive statistics relating to the trend allow some initial considerations. First of all, the variation over the decade has been modest, considering that the range varies between 16 and 19.

In the years following the global financial crisis of 2008, there was a steady increase in the number of employees, a clear indication of a recovery in the sector. Then there was a decrease presumably due to the reverberations of the international financial crisis in the following years.

ROE

The profitability index shows the values proposed in table 4.

Table n. 4: Return on equity

Trend			Descriptive trend statistics		Trend graph
Year	Observations	Average%	Type	Value	
2010	129	7,76	Average	7,584	
2011	145	3,33	Standard error	1,155	
2012	147	5,1	Median	7,65	
2013	145	2,33	Mode	#N/D	
2014	154	6,25	Standard deviation	3,654	
2015	160	9,05	Sample variance	13,35	
2016	164	8,6	Kurtosis	0,336	
2017	175	14,66	Asymmetry	0,475	
2018	176	11,22	Interval	12,33	
2019	174	7,54	Minimum	2,33	

Source: our elaboration on Aida data.

The number of observations is high and, therefore, the trend is identified appears significant.

The values are always positive, although they range from a minimum of 2.33% to a maximum of 14.66%.

Steady growth can be seen since 2013, which has only stopped in recent years.

The trend is, however, quite discontinuous. It can be said, however, that the hypothesis of a profitable sector is confirmed, despite the variability.

Leverage

Leverage is illustrated in Table 5.

Table n. 5: Leverage

Trend			Descriptive trend statistics		Trend graph
Year	Observations	Average	Type	Value	
2010	140	3,44	Average	5,551	
2011	150	5,45	Standard error	0,617	
2012	157	4,76	Median	5,19	
2013	159	6,07	Mode	#N/D	
2014	165	8,76	Standard deviation	1,951	
2015	171	6,99	Sample variance	3,808	
2016	175	2,68	Kurtosis	-0,69	
2017	187	8,09	Asymmetry	0,317	
2018	189	4,34	Interval	6,08	
2019	183	4,93	Minimum	2,68	

Source: our elaboration on Aida data.

An average standard financial situation is considered optimal when leverage has a value of around 2. Higher values indicate the prevalence of borrowed funds over venture capital.

The companies analyzed present worrying values, due to high indebtedness. However, it should be considered that many Italian companies, especially in the south, present similar data, considering that there has always been a low propensity for risky investment on the part of savers.

The highest values were recorded in 2014 in 2017. The best, in 2016.

Similar to Roe, there is a negative variability with a range between a low and a high of 6.08. Fortunately, the cost of money in this decade has been relatively low, as a result of the European bank's monetary policies. Excessive debt has therefore not significantly affected profitability which, as mentioned, has remained positive.

The trend of this index does not confirm the first hypothesis: companies would need a serious policy of rebalancing their financial sources.

Conclusions

Using trend analyses of two balance sheet indices calculated on a significant sample of companies in the industrial sector dedicated to the production of sports articles, the research has highlighted the characteristics of a sector that is important not only for its economic aspects but also for its recreational and social aspects.

The importance of the sports industry for the well-being of populations is well known and highlighted by the best doctrine already mentioned.

Italian industries are mainly located in the most economically developed regions (RQ1) and almost always take the form of limited liability companies (RQ2) They are small in size, considering the number of employees (RQ3).

Profitability was always fluctuating, although consistently positive (RQ4). This confirms the first research hypothesis (H1).

Debt, on the other hand, is high (RQ5), thus negating the second research hypothesis (H2).

This study has several implications. First and foremost, the balance sheet of the companies, which, using the work of the databases, favors sectoral analyses that are useful for each entrepreneur. It is, in fact, possible to compare the profitability and indebtedness of each production unit with the average one to verify the possible presence of significant gaps. This makes it possible to take timely action to remedy the situation before transitory declines can turn into more serious, perhaps even irreversible, crises.

Trade associations could encourage their member companies to carry out constant benchmarking, which could be combined with other management control systems.

Analyses of this kind should be commonplace, especially for banks, to assess their financing policies: the sector is already heavily in debt and so significant increases in risk capital are to be hoped for in the future.

Public authorities certainly encourage sport for all citizens of all ages. It is the best prevention of major diseases. However, any public support for the sector must take into account the economic and financial balance of the companies involved.

The government also has the task of monitoring the performance of companies operating in its territory to prevent crises and company closures that would generate worrying unemployment. From this point of view, the high profitability of the companies is not a cause for particular concern.

The study also has its limitations, mainly due to the small number of indices used - only two. In the future, the analysis should certainly be extended to a larger number of ratios so that the considerations can be more analytical. Ideally, the sample of enterprises should also be extended to include smaller ones, considering that Italy has a high number of micro-enterprises. The methodology could also be refined, developing similar analyses at least for macro-areas, considering that profitability and indebtedness could also be very different, due to the different contexts in which the territory is articulated.

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