Varazdin Development and Entrepreneurship Agency
in cooperation with
University of Aveiro
University North
Faculty of Management University of Warsaw
Faculty of Law, Economics and Social Sciences Sale - Mohammed V University in Rabat

Economic and Social Development

43rd International Scientific Conference on Economic and Social Development –
"Rethinking Management in the Digital Era: Challenges from Industry 4.0 to Retail Management"

Book of Proceedings

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AN ECONOMIC AND FINANCIAL ANALYSIS OF TOURISM FIRMS OPERATING IN OUTDOOR TOURISM

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ABSTRACT

In an era of globalization, the growing number of leisure trips led to mass tourism in a scale prone to generate economic growth. However, and despite the economic impacts, mass tourism can also generate negative impacts on ecological, social and economic terms and a need for a sustainable tourism development has been envisioned. Sustainable tourism is related to a more environmentally friendly tourism, while ensuring viable, long-term economic operations, through providing fairly distributed socio-economic benefits to all stakeholders, including employment and income-earning opportunities. Understanding how sustainable tourism can be developed is important for destinations, to identify regional policies and to potentiate its attractiveness to tourists, who are increasingly looking for cultural and nautical activities and experiences in close contact with nature. The nature activities are appealing to firms, not only because of its potential economic profit, but also because they may require less infrastructures and, thus, less costs. Hence, this paper analyses the financial data of tourism firms operating in nature/adventure, cultural or nautical activities in Northern Portugal. Traditional sustainability measurement tools include non-integrated, regional and integrated indicators/indices. This paper draws the conceptual analysis on measurement of economic sustainability. In particular, here economic sustainability encompasses mainly financial costs and benefits and, thus, a financial analysis is performed. Data on touristic firms in the Northern Portugal, by tourism typology, are collected from the National Tourism Registry and financial data are collected from SABI database. Firms operating in more than one tourism typology were withdrawn. From the registered 732 firms, 9% operate exclusively in nature/adventure tourism; 74% in cultural tourism, and 17% in nautical tourism. A set of indicators of profitability and financial structure and leverage are applied to a sample of 386 firms. However, results show that firms operating in nature tourism do not exhibit the highest levels of profitability.

Keywords: *Financial Analysis, Nature Tourism, Northern Portugal, Outdoor Tourism, Sustainability, Tourism Management Policies*

1. INTRODUCTION

The technological progress and the growth of organizations, observed in the end of the 20th century, have unleashed concerns about the environment and overall well-being. As a result, sustainability has assumed a key role on corporate strategy in order to ensure social, economic and environmental well-being and benefits (Enquist et.al., 2007; Epstein 2008). In this context, it is important to emphasize that sustainability is not untied to economic growth, but represents a factor of competitive advantage and value creation (Perlin et al., 2013). According to Silva et al. (2009), the concept of sustainability applied to firms represents a new approach of doing business that fosters social responsibility and reduces the use of natural resources and the negative effects on the environment, promoting the integrity of the environment for future generations, without losing sight of firms' profitability. The literature offers numerous indicators of sustainability, most of which are still under development, discussion and improvement. A number of authors (Azapagic and Perdan, 2000; Estender and Pitta, 2008; Sousa and Lopes, 2010; Kneipp, 2012; Perlin et al., 2013) argue that sustainability is based on three dimensions- economic, social and environmental (triple bottom lines)- that must be properly structured and balanced, in accordance with specific characteristics of each place or territory. In this framework, in the model proposed by Azapagic (2004), the environmental indicators measure the firm's effects on natural systems, including humans, ecosystems, water, air and land; economic indicators measure the economic impact of the firm on its internal and external stakeholders and on economic systems; and social indicators assess the aspects and practices often associated with social responsibility, translated into sustainable work, human rights, society, and product responsibility (Kneipp, 2012). Corporate sustainability practices are based on a three-way strategy; transparency, stakeholder engagement and thinking ahead. The first is grounded on the belief that an engaging environment within a company/community through open communications (i.e., high levels of information disclosure, clarity, and accuracy) will improve performance and increase profits. The second can be achieved by increasing the ecological literacy of the personnel and stakeholders. Finally, the third can be attained by stimulating the generation of ideas towards reducing productions costs and/or increasing profits. Yet, just as there are cross-country differences in firms, there are differences in firm performance, within countries, that are not captured by national aggregates. Hence, this paper employs financial ratios applied at firm level, since such ratios allow to identify deteriorating financial positions and bankruptcies in the private sector (Beaver et al, 2005). It is assumed that better financial performances are positively related to higher economic profitability, but also to higher engagement of firms in environmental and social responsibility, contributing to region's sustainable development. Furthermore, it is expected that nature/adventure tourism firms, not only demonstrate environmental awareness, and more concern with contributing to preserving environmental resources, as they depend on them, but also, to some extent, to show better financial performances and thus higher economic sustainability. This is the case when firms do not have their own facilities, and use public or common use resources (natural or protected areas and common lands) without having to pay for them, and/or deal with very cheap license costs compared to those firms with their own facilities, with higher maintenance costs and costs of adequacy to the practice of their activities. In this paper we set out to review the financial performance of Portuguese firms operating in Outdoor Tourism activities during the period of 2002-2017. The analysis in a 16-year period allows to understand how business operations are affected by business cycles and how these firms respond to turbulent environments in terms of Profitability, liquidity and financial structure and leverage. Following the introduction, the literature review is used to help construct the financial performance measurement framework. Information on the data source of Portuguese firms is provided in the next section, as well on the empirical framework applied to the Portuguese firms operating in outdoor tourism activities during 2002-2017.

Additional analyses by firm size and year are performed, to assess the impact of size and business cycles on firm performance. Results are presented and used to facilitate benchmarking of financial performance across tourism typologies. In the final section, some conclusions are drawn.

2. LITERATURE REVIEW

Different terms are used to refer to activities developed by tourists involving the contact with nature, such as Nature-based Tourism (e.g. Fennell, 2000; Nyaupane et al., 2004), Ecotourism, Outdoor Recreation and Tourism (Bell et al., 2007), Active Outdoor Tourism (Buckley, 2009), Adventure Tourism (Houge et al., 2016), Outdoor Adventure Tourism (Weber, 2001), Adventure Tourism in Mountain areas (Beedie & Hudson, 2003), and Nautical Tourism (Jovanovic et al, 2017). Some of these concepts and definitions, more specifically, Outdoor Recreation, Nature-based Tourism, Adventure Tourism are simultaneously dissimilar and contiguous (Margaryan & Fredman, 2017). There is not a comprehensive view and an established definition incorporating the commonalities of the previously referred forms of tourism and although a distinct approach of these terms and forms of tourism is undeniably important, a detailed revision of the literature regarding the diverse terminology is beyond the scope of this study. Therefore, for this study, Outdoor Tourism activities refer to varied activities that motivate tourists to visit a certain region and that can be developed, not only in rural areas (Lopes et al., 2017), but also in urban geographical contexts (Margaryan & Fredman; 2017), in sport-related contexts (Geffroy, 2017). These activities include tourists' contact and engagement with nature along with some physical activity, as well as cultural interaction and learning about both, material and immaterial heritage (Margaryan & Fredman; 2017). The before mentioned activities imply physical effort, to a greater or lesser extent, and these activities range from passive (e.g. sitting, relaxing, enjoying a view) to active, (e.g. skiing, mountain biking, horse riding), and they can be undertaken by individuals alone, or in family or groups of friends (Bell et al., 2007). When the focus is rather on adventure, it also involves challenge, and risk-taking (Houge et al., 2016). Based on Beedie & Hudson (2003), these activities can be distinguished between 'hard' and 'soft, where activities like rafting, scuba diving, mountain biking, rappelling, cliff jumping, river crossing, paragliding, rock climbing, and bouldering can be considered as 'hard', whereas 'soft' outdoor activities include walking, cycling, camping, hiking, biking, wildlife watching, horseback riding, canoeing, and water skiing. In recent years, these activities have become increasingly important for visited regions given its economic implications, and therefore, different forms of tourism have grown in popularity, and have captured practitioners' interest (Bell et al., 2007). This recognition creates opportunities to extend the existing knowledge about the impacts of outdoor tourism activities by approaching these activities from a supply perspective. Understanding and researching Outdoor Tourism is critical to destinations' and businesses' marketing strategies and sustainable tourism development. One of the types of tourism that is expected to better meet sustainability standards is nature tourism because it emphasizes the provision of opportunities for tourists to learn and develop a more positive attitude towards environmental resources (Walker and Moscardo, 2014; Ocampo et al., 2018). When widespread, ecofriendly, or environmentally responsible attitudes, both from businesses and tourists alike, can also enable economic, social and ecological benefits such as job creation, community development, environmental conservation and education and cultural preservation (Cobbinah, 2015; Cordeiro, et al., 2015). Measuring sustainability requires some elements based on the economic, ecological, and societal subjects (Desimone and Popoff, 2003; Schaltegger and Wagner, 2006; Johnson, 2007; Waddock and Bodwell, 2007; Epstein, 2008). The purpose of sustainability indicators for industries is to measure firms' economic, environmental, and social performance by providing information on how it contributes to sustainable development (Azapagic and

Perdan, 2000). In particular, on economic grounds, management accounting techniques assist managers to plan and control firms' activities in order to maximize their profits. These techniques allow to report economic performance of the organization to the shareholders (Dutescu et al., 2014). The link between sustainability and corporate financial performance has been an extensively debated topic. However, the empirical results on the impact of sustainability practices on corporate profitability are far from being conclusive (Lassala et al, 2017). For example, some studies conclude that sustainability induces profitability (e.g., Eccles et al., 2011; Singal, 2014; Bagur-Femenías, 2015; Chen, 2015; Alonso-Almeida et al., 2018); while another found that the implementation of sustainability practices in a firm do not impact on firms' profitability (Perera et al., 2011); or impact negatively (Mcpeak et al., 2010). One possible reason for the contradicting results can be the different methodologies employed and different periods of time. For example, Bagur-Femenías (2015) in a study for 546 Spanish hotels and restaurants for 2012, used factorial analysis and a set of structural equations; also for Spain, another study of Alonso-Almeida et al. (2018) for 374 small restaurants in 2010 used a survey and Global Reporting Initiative (GRI) performance indicators. Eccles et al. (2011) and Singal (2014) study 180 and 624 US firms, in the periods of 1993-2009 and 1991-2011, respectively. While the first authors use a multivariate analysis, the second apply financial ratios in their analysis. Pereira et al. (2011) in a study for 36 Brazilian firms for 2005-2008 use a narrative quantitative analysis. Finally, Mcpeak et al., 2010, in a study for 302 US firms in 2005-2007, performed a comparison analysis between the growth of stock price and the S&P 500 index. Traditional sustainability measurement tools include non-integrated, regional and integrated indicators/indices. Sustainability indicators should be simple with a wide scope, quantifiable, sensitive to changes and allow for the tracking of longer-term trends and thus enabling the of making short-term projections and relevant decisions for the future (Harger and Meyer, 1996). The tools are non-integrated, regional flow and integrated indicators. Examples of non-integrated indicators include water quality, national education levels, population growth rates, GNP per capita, and the number of ratified global agreements (UNCSD, 2001). Regional flow indicators are non-integrated as they only focus on environmental aspects. Analysis of material and energy flows allows an overview of the structure of resource flows and identification of inefficiencies within a system (Anderberg et al., 2000). Regarding integrated indicators, a range of alternative measurement tools have been conceived, due to the shortcomings of GDP not taking environmental considerations into account. A detailed description of many of these indicators along with assessment results can also be found in Hanley et al. (1999). At corporate level, one of the most used methods to determine the overall performance, measured through financial analysis is the financial statements analysis and ratio analysis (Borovčanin, 2015). The financial analysis of a firm may be performed for a diversity of reasons, for example valuing equity securities, assessing credit risk or assessing a subsidiary's performance. Financial analysis tools can be useful in measuring firms' performance and trends in that performance. Basically, analysts convert data into financial metrics that assist in decision making, trying to respond to such questions as: How effectively has the firm performed, relative to its own past performance and/ or relative to its competitors? How is the firm liable to perform in the future? Grounded on expectations about future performance, what is the value of this firm? Financial statements comprise data about the past performance of a firm (income and cash flows) along with its present financial condition (assets, liabilities, and equities). The financial analyst must be proficient in using financial statements combined with other information to reach valid conclusions and make predictions. A key source of data is firms' annual reports, comprising the financial statements, records and management commentary (operating and financial review or management's discussion and analysis). The analysis of financial reports is an important instrument for the assessment of business strengths and weaknesses (Carmeli, 2002).

The importance of traditional financial ratios in assessing firm financial health is conventional. Accounting information regarding profitability, liquidity and indebtedness is critical to measuring financial performance (Wu et al. 2010). Indeed, studies show that firms with relatively lower earnings, larger declines in operating income and high debt-to-asset ratios are more likely to experience bankruptcy. In the private sector, models predicting deteriorating financial condition typically include accounting data.

3. DATA SOURCE AND METHODOLOGY

3.1. Data

The goal of this paper is to compare firm performances across outdoor tourism typologies using key financial indicators. Thus, the identification of firms operating exclusively in one type of outdoor tourism was required, in order to assess which typology would display a better financial and/or economic performance. Data on touristic firms in the Northern Portugal, by tourism typology, were collected from the National Tourism Registry (RNAAT). Firms operating in more than one type of tourism were withdrawn. The database from RNAAT showed 1012 touristic agents. However, since SABI database does not have information on entrepreneurs' financial reports, those were withdrawn. Thought the number of firms is 732, the SABI database does not represent 100% of the universe of firms. Thus the sample was narrowed to 386 firms, of which 13% offer exclusively nature/adventure-related activities tourism; 64% cultural-related activities, and 23% in nautical-related activities. In this regard, one should keep in mind that not all Cultural Tourism firms are engaged in outdoor activities, and those engaged in these activities may also include indoor activities. However, due to the impossibility of making this distinction, and for the sake of sample size it was decided to include all Cultural Tourism firms in the sample. Thus, the sample size allows to draw conclusions with 95% confidence. Subsequently, there was a need to collect financial data from the SABI database financial reports. The SABI database, owned by Bureau Van Dijke, contains financial data for 800,000 firms operating in Portugal and 2,600,000 in Spain, including standardised annual accounts, financial ratios, sectoral activities and ownership. A major aspect in the construction of a database is data integrity. In other words, it is necessary to ensure that the database is in accordance with the rules and measures of statistical quality (Dyer, 1992). According to Fox et al. (1994), the four key factors that guarantee a database of high-quality are accuracy, timeliness, completeness and consistency. Bureau van Dijk (BvD) collects and harmonises the data from the mandated firm reports. In particular, in the Portuguese case, financial data come from Informação Empresarial Simplificada (IES).[1] This information is collected in a massive way by Coface, BvD's partner for Portugal, that send it to BvD for subsequent upload in SABI and AMADEUS databases. Therefore, the fulfilment of each of these obligations entailed the need for firms to transmit substantially identical information on their annual accounts to four different entities through various means. With the creation of IES, all reporting obligations are transmitted electronically to a single entity in a single moment in time. Thus, we think the four parameters of quality are met.

3.2. Methodology

The empirical strategy of this paper relies on key accounting data incorporated into financial ratios available from published financial reports in SABI database. According to Steurer et al. (2005), business economic sustainability is classified through its business financial performance, competitiveness and the economic impact generated by the firm and its stakeholders. Thus, this paper analyses economic sustainability in its financial aspect. This paper performs an analysis that encompasses mainly financial costs and benefits for firms operating tourism outdoor activities in the North Region of Portugal.

[1] Simplified Business Information

It applies a numerical and narrative analysis of key financial performance indicators to 386 Portuguese firms operating in Outdoor Tourism activities in Northern Portugal, during 2002-2017.[2] In particular, the framework includes measures reflecting considerations in the literature of appropriate financial performance measures for firms. Using 5 indicators, 4 broad financial performance measures are employed in Stata 13.0, assessing profitability, liquidity, financial structure and financial leverage. Profitability ratio analysis is a good approach to measure firm's performance, because profitability means the ability of a firm to earn a profit. Firms' profitability is essential both for shareholders and creditors because profits allow for dividends and funds for covering debts. Examples include return on equity (ROE), return on assets (ROA), cash return on assets, return on debt, return on retained earnings, return on revenue, risk-adjusted return, return on invested capital, and return on capital employed. This paper employs the two first measures. The ROE measures the ability of a firm to generate profits from the shareholders' investments, i.e., the financial profitability. The calculation formula is as follows:

Return on Equity (ROE) = Net Profit After Taxes/Equity (1)

This ratio shows how much profit is generated by 1 Euro of shareholders' equity. In other words, it measures how effectively money from shareholders is being used for the generation of profits. In view of this, a high value of the ROE is desirable because that would mean efficient usage of investors' funds.

The ROA measures the economic profitability and can be used as an indicator of a firm's effort of minimizing the assets, which are not taking part in the process of generation returns. The formula is:

Return on Assets (ROA) = Net Profit After Taxes / Total Assets (2)

Liquidity ratios measure firms' ability to pay off current debt obligations without raising external capital and its margin of safety through the calculation of metrics, including the current ratio, quick ratio, and operating cash flow ratio. This paper uses the current liquidity ratio measured as:

Current Liquidity Ratio= Current Assets / *Current Liabilities* (3)

This ratio measures a firm's capacity to pay off its current liabilities (payable within one year) with its current assets (cash, accounts receivable and inventories), to evaluate the coverage of short-term debts in an emergency. The higher the ratio, the better the firm's liquidity position. This analysis may be internal or external. Internal analysis involves comparing previous time periods to current operations; while external analysis involves comparing the liquidity ratios of one firm or a group of firms to another firm or group of firms. This ratio is useful to compare the firm's strategic positioning concerning its competitors when creating standard goals. Financial structure ratios are very useful to assess long term financial risk since it provides information about firms' capacity to fulfill their long term financial commitments. This paper uses the ratio of financial autonomy which designates the share of the firm's total applications, i.e. goods and investment applications, financial applications, stocks applications, credit granted to clients, etc., which was maintained by capitals owned by the firm, the equity.

[2] Rua (2017), drawing on a non-parametric approach that emulates the system developed at the NBER for the identificationof business cycle turning points, has identified three troughs (February 2003, April 2009 and April 2013) in this period; but also two peaks (November 2007 and September 2010).

It is measured by:

Financial Autonomy Ratio= Equity / Total Assets (4)

Financial leverage ratios (also known as equity or debt ratios) compare the overall debt load of a firm with the assets or equity. This shows how much of the firm assets belong to the shareholders rather than creditors. When shareholders own a majority of the assets, the firm is said to be less leveraged; conversely, when creditors own a majority of the assets, the firm is considered highly leveraged and the firm is regarded as riskier for lenders. The most common is the debt ratio, that shows how many assets the firm must sell in order to pay off all of its liabilities, and it is calculated as:

Debt Ratio= Total Liabilities/Total Assets (5)

This ratio helps investors and creditors to analyze the overall debt burden on the firm as well as the firm's ability to pay off the debt in the future.

4. RESULTS AND DISCUSSION

4.1. Results

We calculate a set of performance indicators: profitability, liquidity, financial structure and financial leverage ratios. This exercise will allow to assess which typology of firms operating in Outdoor Tourism activities displayed a better financial and economic performance in 2002-2017. The results are summarized in Table 1. The sample comprises 386 firms, of which 51 operate in nature/adventure tourism; 246 in cultural tourism and 89 in nautical tourism, which grants the reliability of conclusions at 95% level of confidence. Regarding the profitability ratios, we find that during this 16-year period, firms operating in cultural tourism show a higher value for ROE, which means that these type of firms generated on average 0.28 € by 1€ of shareholders' equity, in 2002-2017 period. In other words, firms operating in cultural tourism activities make a more efficient usage of investors' funds. Concerning the ROA ratio, despite the fact that all three typologies show negative values for this indicator, firms operating in nautical tourism display less negative values. That means that firms operating in nautical tourism activities make more efforts to minimize the assets that do not take part in the revenue generation process.

Table following on the next page

Table 1: Financial analysis by typology of Outdoor Tourism activities, 2002-2017

Outdoor Tourism Typology	Ratios	Obs	Mean	St. deviation	Min	Max
	Profitability Ratios					
	Return on Equity (ROE)	346	-0,37	6,75	-108,90	20,54
	Return On operating Assets (ROA)	344	-0,23	1,39	-20,08	0,83
	Liquidity Ratios					
Nature/Adventure	*Current Liquidity Ratio*	328	8,13	48,77	0,00	591,00
	Financial Structure Ratios					
	Financial Autonomy	344	-0,12	2,06	-19,73	1,00
	Financial Leverage Ratios					
	Debt Ratio	344	1,12	2,06	0,00	20,73
	Profitability Ratios					
	Return on Equity (ROE)	909	0.28	11.13	-237.10	175.42
	Return On operating Assets (ROA)	908	-0.83	12.75	-349.17	0.97
	Liquidity Ratios					
Cultural	*Current Liquidity Ratio*	862	8,76	39,00	0,00	622,00
	Financial Structure Ratios					
	Financial Autonomy	906	0.05	1.51	-22.05	1,00
	Financial Leverage Ratios					
	Debt Ratio	906	0.95	1.51	0	23.05
	Profitability Ratios					
	Return on Equity (ROE)	596	-6,83	167,96	-4 100,00	14,84
	Return On operating Assets (ROA)	596	-0,06	0,48	-6,89	0,93
	Liquidity Ratios					
Nautical	*Current Liquidity Ratio*	574	6,82	28,79	0,00	403,00
	Financial Structure Ratios					
	Financial Autonomy	596	0,23	0,55	-4,20	1,00
	Financial Leverage Ratios					
	Debt Ratio	596	0,77	0,55	0,00	5,20

Source: own analysis on Stata 13.0

As far as liquidity is concerned, cultural tourism firms show higher values, although this ratio has positive values for the 3 types of tourism typologies. This indicates that firms operating in cultural tourism activities are more capable of pay off their short-term debts in an emergency. Regarding financial autonomy, the values for this ratio are negative for nature/adventure but positive for cultural and nautical tourism firms. The results show that nautical tourism firms are more capable of fulfilling their long-term financial commitments. The debt ratio confirms the better position for nautical tourism firms, which may indicate that nautical tourism firms are less leveraged and hence present a lesser financial risk for lenders. To sum-up, firms operating in cultural tourism activities make a more efficient usage of investors' funds and display a better liquidity position, however regarding the remaining indicators, nautical tourism firms are in a relative better position. Thus, contrary to what was expected, firms operating in nautical tourism activities are more financially sustainable than firms that operate in nature/adventure tourism or cultural tourism activities. Considering that the literature points the majority of firms operating in outdoor / active tourism as being small and of a family nature the sample was divided into small and large firms, according to firms up to 50 employees and with 50 or more employees. The sample of Nature tourism firms shows that all are small. The results for small firms confirm the analysis for the full sample. However, the analysis for larger firms presents different results. In the 16-year period, larger nautical tourism firms show better positions regarding ROE, ROA and liquidity; whereas larger cultural tourism firms display better financial structures and leverage.

In addition, we calculate all ratios for the years that Rua (2017) identified as peaks (2007 and 2010) and troughs (2003, 2009 and 2013) to test the robustness of these findings in Table 2.

Table 2: Financial analysis (mean values) by typology of Outdoor Tourism activities and business cycles, 2002-2017

Outdoor Tourism Typology	Ratios	2003	2007	2009	2010	2013
Nature/Adventure		0.05	-0.19	-0.36	0.55	0.12
Cultural	Return on Equity (ROE)	0.01	0.38	-0.44	1.26	-1.17
Nautical		0.32	0.14	-0.15	-0.63	-0.34
Nature/Adventure		0.05	-0.03	-0.03	-0.10	-0.39
Cultural	*Return On operating Assets (ROA)*	0.05	0.02	-0.12	-0.08	-0.05
Nautical		-0.26	0.03	-0.02	-0.10	-0.04
Nature/Adventure		2.67	3.79	6.05	7.14	2.83
Cultural	*Current Liquidity Ratio*	2,00	5.54	1.91	16.03	7.65
Nautical		2,00	3.71	4.80	9.39	3.02
Nature/Adventure		0.37	0.20	0.16	0.08	-0.09
Cultural	*Financial Autonomy*	0.46	0.46	0.31	0.26	0.24
Nautical		0.32	0.24	0.33	0.32	0.23
Nature/Adventure		0.63	0.80	0.84	0.92	1.09
Cultural	*Debt Ratio*	0.54	0.54	0.69	0.74	0.76
Nautical		0.68	0.76	0.67	0.68	0.77

Source: own analysis

In trough periods, in terms of ROE (financial profitability) cultural tourism firms are in the worst position, nevertheless in peak periods they are also in the best position, which seems to indicate that this type of outdoor tourism firms is more vulnerable to periods of crisis and expansion than the other two types. In terms of ROA (economic profitability) nautical tourism firms are in the worst position in 2003; however, in 2009, they were surpassed by cultural tourism firms and, in 2013, by nature/ adventure tourism firms. In times of expansion, nautical tourism firms are in a better position in 2007 but ceded this position to cultural tourism firms, in 2010. Nevertheless, in that year the values for this ratio are negative for all types of tourism firms. As for liquidity, cultural tourism firms are in the worst position in trough periods and in the best position in peak periods; except in 2013 where the worst position belonged to the nature/ adventure tourism firms. Concerning the financial structure/leverage ratios, nautical cultural tourism firms are in the worst position in 2003, but this position is assumed by nature/adventure tourism firms in 2009 and 2013; whereas, in peak periods, cultural tourism firms show better performances in 2007 and nautical tourism firms perform better in 2010.

4.2. Discussion

Modern society need to pursue clear goals of sustainability that can be measured by sustainability indicators. Because Sustainability indicators are multi-dimensional, multidisciplinary indices, often context-specific, there is no single broad measure of sustainable development. There are no perfect sustainability indicators, hence their development involves a methodological compromise among consistency, technical feasibility and data availability (Ness et al., 2007). Following Pastille (2002) sustainability indicators should allow to: understand sustainability, i.e., to identify key elements of sustainable development and show the state of local sustainability; supporting decisions; involving stakeholders; directing to provide feedback on progress; and solving conflict and building consensus by showing the advantages and disadvantages of different alternatives. The focus of this paper is the economic sustainability of tourism firms, due to data limitations. However, economic effectiveness does not warrant ecologic and social sustainability because the financial indicators do not reflect it. Consequently, the assessment of sustainable development needs an integrated approach, i.e., a set of multi-dimensional indicators, which evaluate both separate parts of the system and their relationships.

On the other hand, there is an inconsistency regarding the future development of sustainability assessment tools. In fact, on the one hand it is required a more specific assessment performance approach, i.e., more case- and site-specific; and on the other hand, there is a demand for broader tools for differing case circumstances. In addition, there is also the need for more standardized tools that give more transparent results. On theoretical grounds, it was assumed that nature/adventure tourism firms could exhibit better financial performances and thus higher economic sustainability. This happens because any tourism firm that do not have its own facilities, makes use of public or common use resources (natural resources or common lands) without having to pay for them, and/or deal with very cheap license costs compared to those firms with their own facilities, with higher maintenance costs and costs of adequacy to the practice of their activities. On the other hand, some of those firms have other costs such as the purchase of equipment that is costly (boats, canoes, special equipment and clothing for the practice of the modalities such as canyoning, vehicles to transport clients) which depreciate over a reduced number of years. Concerning the empirical results, contrary to what was expected, firms operating in nature/ adventure tourism do not present the best position concerning profitability, liquidity or financial structure and leverage. The analysis for single years, according to the business cycles, seems to indicate that this result is mainly due to difficulties encountered during the periods of trough of 2009 and especially of 2013. These difficulties, due to their magnitude, are reflected in the average of the 16-year period. Although it has been consensual in the literature that financial analysis is an adequate approach to measure firm's performance, the applied ratios are not exempt from criticisms. Indeed, profitability ratios provide information about the ability of firms to generate profit. Return on assets and return on equity are two of the most important ratios for measuring the efficiency of usage of the shareholders' costs. However, the liquidity ratio may not be as effective in an inter-industry analysis, especially with firms with different sizes, because different businesses and firm sizes require different financing structures. Indeed, the cost structure and the impact of fixed and variable costs on firms' revenues depend on the tourism typologies (e.g. tourism animation versus accommodation and catering), firms' size and the amount of investment in the infrastructure (for example, comparing hotels with 100 rooms or 20 rooms). Concerning the financial autonomy, the bigger its value, the bigger will be the part of firm's applications that are being funded by equity and, therefore, smaller will be the firm's indebtedness. The bigger or smaller financial autonomy of a firm is a direct consequence of three key factors: firms' profitability, because the bigger the profits the bigger will be the firms' capacity of self-funding; investments and funding policy, since that firms with aggressive investment policies and that rely more on external funding, will have a lower financial autonomy; and the type of activity because capital intensive firms and firms with larger stocks, ceteris paribus will need a larger amount of external funding and, therefore, their financial autonomy will be lower, when compared to services firms. Indeed, investments with resource to external funding reduces the financial autonomy of a firm and consequently raises the long-term default risk and even bankruptcy. The financial leverage ratios are important for investors to understand how risky the capital structure of a firm and if it is worth investing in. The debt ratio calculates total liabilities as a percentage of total assets and shows the overall debt burden of the firm—not just the current debt. The debt ratio is a fundamental solvency ratio because creditors are always concerned about being repaid. As with many solvency ratios, lower ratios are more favorable than higher ratios. A lower debt ratio typically implies a more stable business with the potential of durability because firms with lower ratios also have lower overall debt. Firms with higher debt ratios are better off looking to equity financing to grow their operations, and to be more willing to be involved in environmentally responsible strategies, because more stable and available to look at their future from a more holistic, altruistic perspective.

5. CONCLUSION

The assessment of Tourism firm's performance has become a major issue worldwide since tourism firms incorporate social and environmental concerns in their business undertaking, strategies and operations in addition to their dealings with stakeholders (Lund-Durlacher et al, 2019). In this context, filling stakeholders' needs is fundamental to retaining societal legitimacy and financial liability in the long-run. Financial analysis shows if a firm can get profit from tourism activity and to draw some conclusions on some types of tourism abilities to generate enough incomes to cover its costs and achieve a reasonable profit, i.e., to be economically and/or financially sustainable. Through the application of this financial performance measurement framework using a benchmarking methodology, it is possible to identify relatively strong and weak typologies of Tourism firms. The results indicate that firms operating in cultural tourism activities make a more efficient usage of investors' funds and display a better liquidity position, however regarding the remaining indicators, nautical tourism firms are in a relative better position. Thus, contrary to what was expected, in a financial perspective, firms operating in nautical tourism activities apparently are more economically sustainable than firms that operate in nature/adventure tourism or cultural tourism activities. Nevertheless, the analysis during peak periods showed that cultural tourism firms apparently perform better, especially concerning the financial structure/leverage ratios, when compared to the other typologies of tourism firms. The adoption of this framework of analysis can help policymakers to distinguish between relatively well-performing typologies of Tourism firms, and those showing signs of financial trouble, with a view to early identification those typologies in financial difficulty and those more sustainable in financial terms. Furthermore, such a methodology applied to financial data from AMADEUS™, another database from Bureau Van Dijke with the same source as SABI, that covers a great number of European countries, could be particularly useful for performance assessment in the context of European Union countries.

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