

## Article

# The Financial Performance of Family versus Non-Family Firms Operating in Nautical Tourism

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**Abstract:** This article analyses the financial performance of family versus non-family firms operating in nautical tourism, in 2015–2019. The sample of 39 Portuguese companies was collected from the SABI database. We use a regression of financial performance, measured by three alternative proxies: return on assets, return on equity and operating profit margin, on liquidity, leverage, turnover of assets, asset structure, company size and age. The regressions are performed across Nuts II regions on mainland and across types of firms (family and non-family). The results uncover several patterns. First, family firms are larger and older, make higher investments and therefore are less liquid. Second, liquidity, leverage and investment in tangible assets impact negatively and significantly the corporate financial performance, while the turnover of assets, size and age impacts positively and significantly. Third, the sign of the impacts depends on the measure of performance. Finally, firms in the Northern region show superior performance, which can be explained by the higher share of family firms. These findings can serve as a roadmap for managers when selecting strategies to improve performance. Additionally, they will contribute to the understanding of tourism destination dynamics and competitiveness.

**Keywords:** corporate performance; family firms; nautical tourism



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## 1. Introduction

Nautical tourism includes navigation on seas, lakes or rivers for the purpose of recreation and leisure [1]. Due to Portugal's excellent coastline with potential for surfing and other nautical activities and the infrastructure conditions for tourist cruises, nautical tourism has been gaining popularity. Furthermore, due to their economic impacts, nautical tourism activities are considered a strategic product [2]. This recognition generates opportunities to embrace the existing knowledge about nautical tourism activities from the supply side. The previous literature [3] shows that companies operating in nautical tourism show better financial performance than other companies operating in outdoor tourism in the North of Portugal. The assessment of financial performance is crucial to assess the company's efficiency in managing its investments and finances. There are several factors that can explain this performance, with the company's specific characteristics being the most used determinants [4,5]. Examples of determinants are liquidity, leverage, sales growth, asset structure, asset turnover, size, age, among others. These variables can be manipulated by the manager in order to increase the company's value and profit. Likewise, the ownership structure of firms, that is, whether they are managed by family or non-family professionals, can have an impact on corporate performance [6]. This happens because family firms possess specific characteristics that can be reflected on corporate performance. For example, there is an affective connection between the family and the company, which can bring advantages, such as a long-term perspective in the decision-making process that can translate into more conservative strategies to avoid additional risks [7–10]. Thus, one of

the main issues to be explored in the literature concerns the relative performance of family firms in tourism, compared to professional managers. Moreover, although the literature provides many explanations for the failure of business in tourism [11], studies evaluating the financial performance of nautical tourism companies in Portugal are scarce. Thus, this article analyses the financial performance of family versus non-family firms across 39 Portuguese nautical tourism companies and NUTs II regions of mainland Portugal, during 2015–2019. Our research provides new insights by contributing to a more complete understanding of the competitive nautical tourism supply across regions. This is also a relevant topic on the current management research agenda, as financial performance affects the survival of firms in the market. In what follows, Section 2 reviews the literature on family businesses in tourism. Section 3 describes data sources and methodology; Section 4 presents the results; Section 5 discusses the results; and Section 6 presents the conclusions and their implications.

## 2. Literature Review

The literature suggests that family firms operating in nautical tourism have distinctive characteristics that impact their performance, such as motivation, ownership, size, age and seasonality.

### Motivation

The nature of the tourism industry provides easy entry opportunities into a range of businesses, which specifically appeal to individual owners and families due to their small size, lower capital and operating costs, or greater manageability as they require less or no staff. Interest in these businesses is usually driven by lifestyle preferences, desirable locations and leisure, rather than by desire for profit or financial security [12,13]. Furthermore, tourism promotes direct interactions between host and guest on family property that are often crucial to the customer experience and satisfaction and to the development of the tourist destination [14]. However, a study showed that most nature tourism businesses in Australia were run by operators with no previous experience in tourism or marketing [15]. Another study [16] found a positive correlation between insolvency and managers' lifestyle and desire to maintain a small scale of operations. This also involves resistance to change or to accepting advice [17]. Thus, the motivation of family firms' managers in tourism appears to have a negative impact on financial performance.

### Ownership

In family businesses, it is likely that decisions are taken quite informally, and the business is conducted in a disorderly way [18]. However, owners have an emotional attachment to their business that makes them reluctant to leave the company in difficult times. Thus, the impact of ownership on the performance of tourism companies is undetermined.

### Size

Microenterprises, i.e., with less than 10 employees, require little or no capital investment, involve few or no paid employees, and generate very small amounts of income [19]. Thus, the impact of size of family businesses on its financial performance appears to be negative.

### Age

Newer companies fail at a higher rate in the UK [20]. For example, one study [17] found that around 60% of hotels and guesthouses in Cornwall had new owners within the previous two years and 28% had been in operation for two years or less. Thus, the impact of age of family tourism businesses on its financial performance appears to be positive.

### Seasonality

One of the most striking characteristics of tourist activity is the seasonality of demand [21] that make cash flows and profitability very irregular and may compromise companies' viability [22]. In addition, the opportunity for long seasonal vacations may be

motivating for some managers, but it reduces the growth potential of firms [11]. Thus, the impact of the seasonality of tourism companies on its performance appears to be negative.

### 3. Materials and Methods

The sample of Portuguese companies operating in nautical tourism, in 2015–2019, was collected from the Bureau van Dijk's SABI database [23]. From an initial list of 61, after excluding inactive companies and those lacking sufficient data, the final sample is an unbalanced panel of 39 companies, with a total of 164 observations.

#### 3.1. Variables

##### *Dependent variables*

Financial performance was measured using three different proxies: return on assets (ROA), return on equity (ROE) and operating profit margin (OpMg). These proxies present different stakeholder perspectives. While ROA is commonly used by all stakeholders to understand companies' return on investment, ROE is more accurate for shareholders to understand the specific return they can earn, and OpMg is used by managers to analyse the company's ability to generate profits [24]. They are calculated as follows:

$$\text{ROA} = \text{Net Income} / \text{Total Assets} \quad (1)$$

It measures the company's efficiency, as it shows whether the investments made are generating sufficient profits. Therefore, the greater the value, the better the company's performance, as the investments are needed.

$$\text{ROE} = \text{Net Income} / \text{Total Equity} \quad (2)$$

It shows the company's ability to generate returns to stakeholders. The higher the index, the greater the financial profitability of the company, because with the investment made by the stakeholders, the company is able to generate profits.

$$\text{OpMg} = \text{EBITDA} / \text{Revenue} \quad (3)$$

where EBITDA denotes Earnings Before Interest, Taxes, Depreciation and Amortization. It shows the company's operating margin by unit of sales/services. The higher the index, the better the company's performance, as it is more capable of generating profits.

##### *Independent variables*

The independent variables reflect firms' characteristics, such as the type of ownership, location, and other control variables taken from the literature.

**Ownership.** There are several notions of family business. The European Commission [25] found more than 90 different definitions. Yet, three dimensions are included in almost all of them: family ownership, family control and family involvement in the business [26]. Typically, for a business to be classified as a family business, the family must have at least 25% of the decision-making rights, and at least one family member is in the governance of the business [25,27]. In this article, since companies are not listed, we consider that to be a family business, its shareholder must hold more than 50% of the company's shares, to ensure maximum decision-making rights, following [8]. The proxy for ownership is:

- Dfam, a dummy that takes value one for family type, and zero, otherwise.

**Location.** Portuguese regions have different population densities, number of companies, or even unique access to transport, health, education, among others. Furthermore, regions with a greater coastal area have more opportunities to receive nautical tourism companies. The proxy for location is:

- Region: takes value 1 for North; 2 for Centro; 3 for Lisbon; 4 for Alentejo; and 5 for Algarve.

### Controls

We also included several control variables to measure company characteristics, as suggested by [4,5,26]. These variables are:

$$\text{Liquidity (Liq)} = \text{Current Assets/Current Liabilities} \quad (4)$$

It explains the company's ability to meet its obligations [4,24]. A higher liquidity may be a sign of a well-managed firms; however, free cash flows are related to free rider problems [28]. Therefore, companies must manage and maintain a balanced level of liquidity to deal with uncertainty and create value [29]. We formulate the following hypothesis:

**Hypothesis 1 (H1).** *Liquidity has a negative and significant impact on the performance of companies.*

$$\text{Leverage (Lev)} = \text{Total Debt/Total Assets} \quad (5)$$

Companies can finance their investments using equity or total debt. The optimum capital structure depends on the company, as investing with debt capital brings advantages but also carries risks. Yet, when the expected return on investment exceeds the cost of financing, leverage helps companies to make further investments that are prone to leading to superior corporate performance [4]. From an agency theory perspective, debt can have an external monitoring effect, i.e., it can be a way to control managers' opportunism to expropriate the company's assets and, thus, can help to improve the company's performance [30]. We formulate the following hypothesis:

**Hypothesis 2 (H2).** *Leverage impacts negatively and significantly on the performance of companies.*

- Sales Growth (SG) is the annual sales growth

It shows the growth opportunities for companies [31]. The higher the index, the greater the growth of the company's activity, which leads to an increase in profits [32]. We formulate the following hypothesis:

**Hypothesis 3 (H3).** *Sales growth has a positive and significant impact on companies' performance.*

$$\text{Asset Turnover (AT)} = \text{Total Sales/Total Assets} \quad (6)$$

This is an efficiency ratio [32]. The higher the index, the greater the company's ability to increase sales with the investment made. However, the company may also be close to its maximum capacity and may need to make new investments to sustain its growth. We formulate the following hypothesis:

**Hypothesis 4 (H4).** *Asset rotation positively and significantly impacts the performance of companies.*

$$\text{Asset Structure (AS)} = \text{Fixed Assets/Total Assets} \quad (7)$$

Companies that invest more in fixed assets can increase sales as they have more capacity to produce and sell, which in turn increases profits. However, it increases depreciation, which negatively impacts actual performance [33]. We formulate the following hypothesis:

**Hypothesis 5 (H5).** *Investing in tangible assets impacts negatively and significantly on firms' performance.*

$$\text{Labor Costs (WfCost)} = \text{Labor Costs/Operating Profits} \quad (8)$$

This variable is expressed in natural logarithms as in [24]. If, on the one hand, wage increases the well-being and motivation of workers, which can boost labour productivity and performance, on the other hand, it represents additional costs that reduce profits. Therefore, the impact of labour costs on performance is indeterminate.

- *Size* is measured by total assets

This variable is expressed in natural logarithms as in [4–35]. If there are economies of scale, the larger is the size, and then the greater are the firms' performance, since companies can reduce unit production costs. We formulate the following hypothesis:

**Hypothesis 6 (H6).** *Size impacts positively and significantly on firms' performance.*

- *Age* is measured by the years of activity

This variable is expressed in natural logarithms as in [5,34]. Older companies are more knowledgeable about the market and the activity. Hence, they can easily deal with unexpected situations, which leads to performance increases [35]. However, companies in a mature lifecycle are more likely to start decreasing their activity and profits [26]. Therefore, the impact of age on performance is indeterminate.

### 3.2. Methodology

First, we compared the main descriptive statistics across family and non-family firms and regions. Then, we performed a correlation analysis to decide which control variables to include in the following models:

$$\text{Performance}_{it} = \beta_0 + \beta_1 \text{Dfam}_{it} + \beta_2 \text{C}_{it} + \text{U}_i + \text{V}_t + \varepsilon_{it} \quad (9)$$

and,

$$\text{Performance}_{it} = \alpha_0 + \alpha_1 \text{Region}_{it} + \alpha_2 \text{C}_{it} + \text{U}_i + \text{V}_t + \varepsilon_{it} \quad (10)$$

where performance is measured using the three alternative proxies; C denotes the matrix of control variables; *i* and *t* denote firm and time, respectively.  $\text{U}_i$  is firm fixed effects;  $\text{V}_t$  is year fixed effects; and  $\varepsilon_{it}$  is the error term. The model was estimated using OLS, fixed and random effects, and we run the Hausman test to chose the more accurate model as in [36–38].

## 4. Results

### 4.1. Sample Characterization

Nearly half of firms in the sample (47.6%) are of the family type, which demonstrates an equitable distribution of the sample regarding types of ownership. Figure 1 shows the distribution of firms across mainland regions.

Most companies operating in the nautical sector are located in the North region (47%), where companies can benefit not only from the Atlantic Ocean, but also from the Douro River. The Algarve ranks in second (20.1%), benefiting not only from the greater relative share of coastal zone, but also from good weather.



**Figure 1.** Regional distribution (%) of companies in the sample.

#### 4.2. Descriptive Statistics

Descriptive statistics are provided in Table 1. This table presents information for the total sample and for family and non-family firms. We also compared the median of both groups using the Mann–Withney non-parametric test to check whether they were similar. The Kolmogorov–Smirnov analysis shows that data are not normally distributed.

Firms in nautical tourism have a median positive performance (ROA, ROE and Op-Margin), being similar for family and non-family firms (MW test was not statistically significant). Yet, on average, ROE is negative because a non-family business has a high negative ROE due to a large loss in one of the years. These firms also show liquidity, since in mean current assets superior to current liabilities ( $Liq > 100\%$ ), suggesting an efficient management of the company. Non-family firms are more liquid than family firms and the difference is statistically significant. In the median, 50% of total assets are financed through liabilities (Lev) and, even if family firms are slightly more indebted, the difference from non-family firms is not statistically significant.

Annual sales (SG) are declining, especially in non-family firms, and the difference is statistically significant. However, results can be biased due to missing values, and thus caution is needed to interpret such results. Non-family firms are, in average, more efficient at generating revenues from its assets (AT), but the difference between the two group of companies is not statistically significant.

Tangible assets (AS) represent half of total assets (in median) for family firms, while for non-family businesses it represents only 18%. Hence, family firms make more investments, while non-family firms have no investments (and tangible assets are almost all depreciated).

Labor costs (WFcost) represent 11% of operating profits and this share is similar for family and non-family firms, suggesting similar wages. Non-family firms are smaller than family firms (size), which can explain the lower level of investments by financial constraints due to their smaller scale of operations. Finally, family firms are older than non-family firms (age), in line with [39]. Table 2 presents descriptive statistics by region.

The analysis across regions uncovers a pattern of regional asymmetries. The Centro region shows the highest ROA (median 2.47%), followed by the North. The highest ROE is found in the North region (median 17.62%), followed by Alentejo. The operating margin is higher in Alentejo (median 37.07%) and the North region ranks in second. This suggests

that the magnitude of performance depends on the measure used. Yet, the Northern region shows a good performance, regardless of the proxy used. Most companies in the North and Alentejo are of the family type. The most liquid companies are located in the Centro region (median Liq = 639.80%), followed by the North region. In the Centro, liabilities only finance (in the median) 27.31% of total assets, while companies are more indebted in the Lisbon region (median Lev = 96.10%). A possible explanation for this greater level of indebtedness may be found in the dynamism of harbour cruise in Lisbon. This dynamism may imply a greater competition, but also a greater demand that compels firms located in Lisbon to invest more and in more sophisticated boats to capture the large influx of tourists in the estuaries of the Tagus and Sado rivers.

Sales growth lacks observations for some regions, but in the median, most regions show drops in sales (SG is negative). Companies with more sales in relation to total assets are located in the North region (median AT = 73.32%), followed by the Centro region.

Companies that invest more in fixed assets are located in Alentejo (median AS = 87.54), while companies that invest less are located in Algarve (median AS = 12.93%). One possible explanation is that, despite the existence of nautical infrastructure from north to south of the country, they are more concentrated in Lisbon and Algarve. In particular, Algarve has 19% of marinas and 37% of berths. Therefore, it is likely that much of the equipment for nautical activities already exists without the need to make large replacement investments.

**Table 1.** Descriptive statistics.

Variable	Sample	Mean	Median	Std. Dev.	Minimum	Maximum	MW Test
ROA	Total	2.34	1.73	21.91	−62.83	69.83	-
	Fam	2.34	2.24	17.76	−62.83	60.40	0.98
	Nfam	2.34	0.95	25.85	−62.49	69.83	
ROE	Total	−117.21	11.76	1789.06	−22,873.38	468.11	-
	Fam	26.72	10.70	58.52	−22.41	468.11	0.79
	Nfam	−275.90	14.96	2592.91	−22873.38	175.05	
OpMg	Total	8.67	18.37	48.28	−241.57	85.43	-
	Fam	9.56	20.00	50.40	−241.57	68.76	0.32
	Nfam	7.51	17.03	45.71	−179.28	85.43	
Liq	Total	1109.65	258.30	2400.63	4.00	15,284.00	-
	Fam	580.42	210.95	1181.88	4.00	8563.70	0.00
	Nfam	1724.70	394.20	3195.70	9.00	15,284.00	
Lev	Total	73.98	50.16	79.62	0.00	582.80	-
	Fam	79.49	55.26	86.16	2.71	582.80	0.14
	Nfam	67.90	44.66	71.80	0.00	396.51	
SG	Total	−50.00	−100.00	76.38	−100.00	100.00	-
	Fam	−12.50	−25.00	85.39	−100.00	100.00	0.08
	Nfam	−100.00	−100.00	0.00	−100.00	−100.00	
AT	Total	66.32	48.04	70.76	0.00	486.51	-
	Fam	61.49	43.78	51.68	0.00	240.90	0.79
	Nfam	71.64	60.98	87.15	0.00	486.51	
AS	Total	38.30	36.41	30.76	0.00	95.85	-
	Fam	49.84	50.41	29.55	0.49	95.85	0.00
	Nfam	25.57	17.71	26.94	0.00	93.35	
WfCost	Total	11.40	11.00	2.07	3.87	16.01	-
	Fam	11.53	11.58	1.95	6.23	16.01	0.27
	Nfam	11.19	10.73	2.27	3.87	15.41	
Size	Total	12.51	12.39	2.24	7.20	17.76	-
	Fam	13.27	13.11	1.73	10.08	17.76	0.00
	Nfam	11.67	12.16	2.44	7.20	16.76	
Age	Total	13.48	13.00	9.62	1.00	43.00	-
	Fam	15.33	15.00	10.51	1.00	43.00	0.02
	Nfam	11.45	10.50	8.13	1.00	30.00	

Notes: Total represents the total sample; Fam includes companies in the sample classified as family firms and NFam the non-family companies. MW test shows the *p*-value, where less than 10% means that the median of both groups is significantly different.

**Table 2.** Descriptive statistics per region.

Region		ROA	ROE	OpMg	Dfam	Liq	Lev	SG	AT	AS	WfCost	Size	Age
North	Mean	1.71	28.51	10.06	0.56	1191.69	76.37	−30.00	70.57	43.32	11.30	12.72	11.79
	Median	2.42	17.62	19.41	1.00	274.45	53.45	−50.00	73.32	46.29	10.77	12.59	14.00
	Std.Dev.	19.50	59.89	43.92	0.50	2695.09	76.05	83.67	49.62	30.16	2.01	1.97	8.15
	Min.	−62.83	−31.62	−241.57	0.00	4.00	0.68	−100.00	0.00	0.00	7.80	8.68	1.00
	Max.	60.40	468.11	62.66	1.00	15,284.00	396.51	100.00	240.90	95.80	15.41	16.76	30.00
Center	Mean	10.40	25.72	19.17	0.47	1398.50	30.54		78.16	30.49	11.21	12.17	12.79
	Median	2.47	2.84	12.53	0.00	639.80	27.31		62.36	27.65	11.00	12.23	11.00
	Std.Dev.	17.55	41.18	17.97	0.51	1585.95	25.96		43.73	19.96	0.65	1.15	8.37
	Min.	−13.23	−15.21	−11.37	0.00	28.30	2.51		0.00	0.00	10.32	7.82	1.00
	Max.	47.67	132.00	47.38	1.00	5556.80	93.56		148.26	69.97	12.57	13.57	26.00
Lisbon	Mean	2.99	−965.32	−15.99	0.39	1607.21	133.78	−100.00	50.72	33.43	11.75	13.13	18.13
	Median	0.95	9.33	12.57	0.00	139.50	96.10	−100.00	33.10	45.28	10.77	12.97	11.00
	Std.Dev.	23.78	4775.96	74.12	0.50	3611.49	125.09		54.34	28.65	2.97	2.84	13.93
	Min.	−34.03	−22,873.38	−170.06	0.00	6.80	27.37	−100.00	0.00	0.00	3.87	7.80	1.00
	Max.	69.83	125.39	60.35	1.00	13,306.70	582.80	−100.00	178.06	93.35	16.01	17.76	43.00
Alentejo	Mean	0.45	24.19	8.24	0.83	586.08	63.62		27.53	84.64	11.73	13.70	11.92
	Median	2.31	10.40	31.07	1.00	44.60	56.56		28.73	87.54	14.32	12.69	13.50
	Std.Dev.	13.44	41.33	66.68	0.39	1222.04	35.40		10.33	13.25	3.27	2.75	5.40
	Min.	−28.32	−5.15	−179.28	0.00	22.50	27.48		10.63	57.52	6.23	10.25	1.00
	Max.	22.90	146.84	68.76	1.00	3768.60	142.99		41.58	95.85	14.44	16.86	18.00
Algarve	Mean	−0.59	0.18	17.81	0.45	587.15	55.50	−100.00	74.54	17.61	11.42	11.33	15.15
	Median	0.00	6.14	7.68	0.00	233.20	47.08	−100.00	28.04	12.93	11.86	12.19	14.00
	Std.Dev.	29.46	100.16	33.20	0.51	754.35	53.76		124.81	21.23	1.12	2.25	10.21
	Min.	−62.49	−501.78	−58.44	0.00	47.40	0.00	−100.00	0.00	0.00	8.68	7.20	1.00
	Max.	69.14	175.05	85.43	1.00	3366.00	223.02	−100.00	486.51	83.58	12.42	14.73	33.00

Labor costs are higher in Alentejo (median WfCost = 14.32), while the other regions show similar values. This suggests the need for companies in this region to attract workers, since Alentejo is not a traditional nautical tourism destination. The size of companies is similar between regions. The oldest companies are located in the North and Algarve. These two regions concentrate the larger share of companies in the sample.

Table 3 shows the correlations among variables. Performance proxies are not highly correlated.

**Table 3.** Correlation matrix.

	ROA	ROE	OpMg	Dfam	Region	Liq	Lev	SG	AT	AS	Wfcost	Size	Age
ROA	1												
ROE	−0.058	1											
OpMg	0.632 ***	−0.078	1										
Dfam	0.000	0.085	0.021	1									
Region	−0.048	−0.034	−0.006	−0.040	1								
Liq	0.009	−0.401 ***	0.028	−0.238 ***	−0.094	1							
Lev	−0.430 ***	−0.023	−0.469 ***	0.073	−0.043	−0.079	1						
SG	−0.333	−0.168	0.761	0.612	−0.416	−0.310	0.516	1					
AT	0.334 ***	0.012	0.184 **	−0.072	−0.044	−0.051	−0.127	0.908 ***	1				
AS	−0.199 **	−0.043	−0.268 ***	0.395 **	−0.179 **	−0.124	0.224 ***	0.605	−0.171 **	1			
Wfcost	0.101	0.023	0.174	0.081	0.055	−0.256 ***	0.134	−0.172	0.156	−0.062	1		
Size	0.195 **	0.006	−0.015	0.359 ***	−0.154 **	−0.147	−0.023	0.650	−0.085	0.295 ***	0.858 ***	1	
Age	0.197 **	−0.095	0.224 ***	0.204 ***	0.118	−0.081	−0.111	−0.333	0.071	0.073	0.603 ***	0.474 ***	1

Notes: The significance levels for mean differences are based on a two-tailed t-test. \*\*\*, \*\*, and \* are significantly different from zero at the 1%, 5%, and 10% level, respectively.

However, ROA and operating margin are positive and statistically correlated. Operating margin is mainly used by company managers, while ROA is used by all stakeholders to understand the company's financial situation. Shareholders are more concerned with profits and dividends, which differs from managers' motivations, such as to sustain firm's survival and growth.



Sales growth is highly correlated with operating margin and workforce costs are highly correlated with firm size. Therefore, these two variables are not included in the regression model to avoid biased results.

The type of ownership (family and non-family) and the region where the companies are located are not significantly correlated with any of the three measures of corporate financial performance, suggesting that performance should be mainly explained by other variables in the model. However, the nature of ownership is negatively and significantly correlated with liquidity and positively with the size and age of companies. This suggests an indirect impact of the nature of ownership on financial performance via liquidity, size and age. Thus, family businesses tend to have less liquidity, are larger and older than companies managed by professionals.

The region where the companies are located is negatively correlated with the size of the companies. This suggests an indirect impact of the region on financial performance via firm size. Thus, companies in the North tend to be smaller and companies in the Algarve are larger.

Regarding the correlation of control variables, the findings suggest that: (1) More liquid companies show less ROE, as they increase self-financing rather than pay dividends; (2) Firms that are more indebted underperform, because of the debt burden and greater financial risk; (3) The higher the sales over total assets (AT), the better the performance measured by ROA and by operating margin, and the greater the sales growth, because as sales increase, the company's profit also tends to increase; (4) The higher the investment levels, the lower the performance measured by ROA and by operating margin. Indeed, higher levels of investments require debt financing, which negatively impacts on operating earnings; (5) The lower the asset turnover, the greater the leverage; (6) Increases in labor costs cause drops in liquidity; (7) Larger and older firms show higher ROA, higher investment levels and higher wages.

#### 4.3. Model Estimate Results

Table 4 presents the results of the regression model.

Table 4. Regression model results.

	(1A)	(2A)	(1B)	(2B)	(3A)	(3B)
c	−20.135	−20.504	852.211	1182.29	41.608	45.657
Dfam	0.842	-	193.765	-	9.883	-
Region	-	0.005	-	−85.497	-	−2.007
Liq	−0.001 **	−0.001 **	−0.313	−0.327	−0.000	−0.001
Lev	−0.075 ***	−0.075 ***	−1.319	−1.239	−0.066 **	−0.064 **
AT	0.089 ***	0.089 ***	−0.479	−0.711	0.057	0.058
AS	−0.183 **	−0.181 **	−6.116	−5.795	−0.265 **	−0.250 **
Size	2.202 *	2.250 *	19.968	12.21	−5.859	−5.598
Age	0.875	0.922	−272.483 *	−231.591 *	20.199 **	20.947 ***
Hausman test	10.219	10.176	6.342	6.237	7.242	7.589
Effects estimation	RE	RE	RE	RE	RE	RE

Notes: Models 1 and 2 use the estimating equations (9) and (10) with ROA as the measure of performance; Models 3 and 4 use ROE; and Models 5 and 6 use OpMg. The significance levels for means differences are based on a two-tailed t-test. \*\*\*, \*\*, and \* are significantly different from zero at the 1%, 5%, and 10% level, respectively.

From the analysis of Table 4, we find that the ownership structure of the companies (family or non-family) and the region of location do not have a direct impact on financial performance. Yet, the previous literature [26,40] has found that family firms exhibit superior financial performance than non-family firms. In the case of nautical tourism, both types of firms show similar performances. Furthermore, although specific regions may attract more nautical tourism companies, firms' location (region) do not appear to have a direct impact on companies' financial performance. Therefore, there is no statistical significant difference between the sign of impacts whether we use models from Equations (9) and (10), i.e., using

variables Dfam or region. Additionally, we find that firms' characteristics have more significant impacts on performance when ROA is used as proxy. The use of OpMg ranks in second regarding the number of impacts and using ROE, only age has a negative impact on performance. In contrast, using the operating margin, the impact of age is positive on performance. The impact of asset structure, leverage and liquidity on performance is always negative, regardless of the measure of performance used, while the impact of investments (AT) is positive using ROA and OpMg, but negative using ROE. Yet, it is only statistically significant using ROA as a measure of performance.

## 5. Discussion

The objectives of the Portuguese Tourism Strategy 2027 are to establish tourism as a pole of economic, social and environmental development throughout the territory, positioning Portugal as one of the most competitive and sustainable tourist destinations in the world [41]. In this sense, several measures were implemented, such as the acquisition of technology, infrastructure and human resources, and the provision of specific financing lines, with the aim of developing tourism to ensure a more sustainable and inclusive tourism supply. In this context, nautical tourism is an exceptional opportunity to reorient some sun and beach destinations [42]. Aware of the potential of nautical activities for the recovery of tourism, some regions of the world have launched development projects to prepare and attract these tourists [43].

However, competition among tourist destinations at a global level is constantly challenging the tourism supply to increase competitiveness, maintain its market position and provide better tourist experiences than its rivals [44]. Thus, tourism companies are forced by the market to improve their performance [45,46]. In addition, the competitiveness of tourist destinations is crucial for economic growth [47]. Tourism studies, from a supply side perspective, highlight effective financial management as one of the most important factors for the competitiveness and sustainability of companies [48]. In this framework, financial performance is related to good financial management, through minimizing costs and maximizing profits. Since financial performance can be a proxy for corporate economic sustainability, it impacts the competitiveness of tourist destinations. Indeed, understanding the success of tourism companies in Portugal can improve the sector's performance, leading to the success of tourism firms and boosting the development of Portugal as a tourist destination. However, there is still little academic research focused on the economic sustainability of tourism companies [49].

Our results suggest that the impact of firm-specific characteristics on financial performance depends on the proxy used, in line with previous results [4,24]. More liquid firms exhibit less ROA, as managers have more cash flows and can make investments that increase their personal benefits, rather than the firm's wealth, creating free-riding problems as suggested by [28]. Similar results are found in [4,26]. In addition, more leveraged companies show lower financial performance measured by both ROA and operating margin. Higher indebtedness increases the company's financial costs and uncertainties, making it difficult to generate profits and invest in growth opportunities, affecting negatively the financial performance. This finding is consistent with those of [24,26]. In addition, investing in tangible assets decreases companies' performance as measured by ROA and operating margin, as depreciation costs increase, negatively impacting immediate operating results. This result is in line with [24,33]. On the other hand, asset turnover has a positive and significant impact on ROA, since the company has a greater capacity to increase sales and is more efficient in the use of its assets, confirming the results of [26]. In addition, large companies show greater performance as measured by ROA, as these companies can benefit from economies of scale, reducing production costs and increasing net income. Similar results are found in [4,5,26,34].

Finally, age has a negative impact on ROE, but a positive impact on operating margin. Older companies are more knowledgeable about the market and more capable of reacting to unexpected situations, which has a positive impact on operating profits and operating

margin [24]. Thus, our hypotheses H1, H2, H4, H5 and H6 are corroborated. H3 was not validated because sales growth was omitted from the regression as it was highly correlated with operating margin.

This article has some limitations. First, the research is focused on just one country with specific characteristics. So, it might be interesting to do a cross-country analysis to compare the results. In addition, a more comprehensive study would involve case studies of nautical companies to understand the strategic decisions to support economic sustainability. On the other hand, others variables could be included in the statistical model to have a more complete picture as well as a more detailed overview of factors that might have affected such geographic division of different business models (e.g., demographics, culture, diversity, and economics).

## 6. Conclusions

Since the sea is Portugal's identity resource, the country has all the conditions to be a favorite destination for water sports lovers, with a coastline of 2830 km and 620 km<sup>2</sup> of rivers and dams. Nautical activities have been considered as enriching experiences of tourist products, contributing to differentiate the supply, alleviate seasonality because they can be practiced all year round, and maximize the country's tourist potential, being a factor of qualification and sophistication of the image of Portugal as a tourism destination. Still, the development of a tourist product or service involves a series of demands and an adequate and well-planned management, which restores the business and increases profit margins, keeping the companies sustainable, long lasting and viable.

The national tourism strategy focuses on enhancing the territory and inserting tourism into the marine economy: (i) strengthening the country's position as a destination for nautical, sporting and leisure activities related to the sea and as an international surf destination; (ii) sustainable nautical activities for the enjoyment of the sea; (iii) dynamization of infrastructure, equipment and support services for nautical tourism; (iv) development of "experience scripts" related to nautical activities; (v) coastal valorization actions, such as the requalification of marginal areas; (vi) promotion of tourism projects; and (vii) evaluation of seafood as an important part of the Mediterranean diet.

The literature suggests that family businesses operating in nautical tourism have distinctive characteristics that impact their performance, such as motivation, ownership, size, age and seasonality. As the results of the previous literature did not allow us to assess the sign of the impact of ownership on the performance of family firms in the nautical tourism industry, the present study is an attempt to bridge this gap. Thus, our results uncovered a pattern of lower liquidity, higher investment levels, larger size and older family firms. As our findings suggest that liquidity, leverage and investments have a negative impact on performance, family firms show better financial performances than non-family firms. These findings are supported by the fact that size and age impact positively on firms' performance.

The results across regions show that companies in the Centro region have greater economic profitability (measured by ROA), followed by companies in the North region. In relation to financial profitability (measured by ROE), this is higher in the North region, followed by Alentejo, while the operating margin is higher in Alentejo and in the North region, where most family firms are located.

Companies with greater liquidity are located in the Centro region, followed by the North region. Companies in Lisbon are more indebted, perhaps as a result of investments to take advantage of the large influx of tourists in the estuaries of the Tagus and Sado rivers, while in Algarve, companies appear to invest less.

To sum up, the Northern region shows good performance indicators (regardless of the proxy used), confirming the results of previous studies for outdoor tourism companies in this region. This has implications for company managers and authorities responsible for tourism promotion in Portugal. Indeed, evidence suggests that companies in the Northern

region are better managed, which could benefit this region in terms of competitiveness as a tourist destination.

The correlation matrix shows that ownership and location are not directly correlated with performance, suggesting that this is explained by other characteristics of companies, namely liquidity, leverage, investment in tangible assets, asset rotation, size and age. Yet, ownership is negatively and significantly correlated with liquidity and positively and significantly correlated with size and age. This implies an indirect impact of ownership on financial performance via liquidity, size and age. Thus, one might conclude that family firms (which are less liquidity, larger and older) perform better than companies managed by professionals. On the other hand, correlation analysis suggested an indirect impact of location on financial performance via size. This suggests that Northern firms are smaller than companies in Algarve. However, we found that firms located in the North exhibit superior performances. Hence, the negative indirect impact of the region, via size, on financial performance should be small enough to prevent it to offset the direct positive impacts of Northern firms' characteristics on financial performance.

Since it would be interesting to develop the contextual scenario to better understand the differences and the potential development of the performance of nautical tourism companies, avenues for future research include the use of other indicators of financial performance and economic sustainability. Additionally, exploring the reasons why some companies operating in nautical tourism during this period were inactive should provide further information about nautical tourism in Portugal on the supply side perspective.

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