

The Impact of Health Tourism on Companies' Performance: A Cross Country Analysis

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Abstract—This research focused on the capability of health tourism to improve the economic and financial performance of healthcare companies. It is assumed that health tourism companies have better profitability and financial efficiency because they can also count on cross-border demand differently from no health tourism companies. A three-level gap analysis was conducted: the first concerns health tourism companies located in Italy and in the other EU28 states; in the second Italian and EU28, no health tourism companies were compared; the third level is about the Italian system with a comparison between health tourism and no health tourism companies. Findings highlighted that Italian healthcare companies have better profitability performance if compared to European ones, but they present weaknesses in the financial position given the illiquidity and excessive leverage. Furthermore, studying the Italian system, we found that health tourism companies are more profitable than no health tourism companies.

Keywords—Financial performance, gap analysis, health tourism, profitability performance, value creation.

I. INTRODUCTION

IN recent years, there has been a progressive increase in the mobility of patient-citizens. This phenomenon is mainly attributable to globalization which has promoted international mobility and has allowed an increasing number of subjects to benefit from health services outside national borders. Patient-citizens can be defined as subjects who decide to move outside their national borders to access health services. This because of is the unavailability or difficulty in accessing health care in one's own country, but also of long waiting lists. In this regard, the internet has played a decisive role, given the possibility of communicating with an unlimited audience of users, with systematic information actions, aimed at overcoming the information gap. This is a phenomenon with different implications on the healthcare landscape, with valuable opportunities not only for businesses but also for citizens, if carefully monitored and managed to prevent opportunities from becoming threats. It is, in fact, known that some countries have serious gaps in its health systems especially in terms of patient protection and performance protocols.

Health tourism also has effects on the economy, so many countries have started to encourage its diffusion. Some empirical studies have identified that a growth in health tourism produces an increase in the annual growth rate of GDP [1]-[3], but also on value added of medical services and job creation

[4]-[7]. Other evidence compares the richest and poorest wealthy countries, showing that the second ones grow more consistently and faster than the wealthier countries [8]-[12]. In the last year health tourism, like tourism in general, has been limited by COVID-19: the virus's diffusion has in fact forced the closure of borders with consequent blocking of tourist flows. This will have significant repercussions on the sector, imposing countries to review and reformulate their policies from a strategic perspective. Healthcare companies will also have to take action to encourage the attractiveness of tourists from other countries. The reduction of costs and the promotion of events with free participation during which to present and test their healthcare services are just some of the possible initiatives [13]. However, the complete recovery of health tourism could only occur from 2021, compatibly with the recovery of the entire tourism sector [14]. So, the restart of healthcare tourism can only be estimated from a long-term perspective.

II. LITERATURE REVIEW

The debate on the various aspects and effects of health tourism continues to grow, with researchers committed to providing more or less articulated frames considering that “health is a state of complete physical, mental and social well-being and not only the absence of diseases and disorders” [15].

There are many definitions of health tourism in the literature. Most of them consider it as the form of tourism that reconciles physical, mental and spiritual well-being by using health care not available in the country of residence [15]-[20].

Generally, health tourism can be defined as “the organized travel outside one's local environment for the maintenance, enhancement or restoration of an individual's wellbeing in mind and body” [19]. In the most shared acceptations, it includes distinct sectors: medical tourism, wellness tourism and spa tourism [21]. These health tourism configurations are differentiated according to the motivation that drives patients to move. In detail, for medical tourism, the motivation for travel is mainly represented by the need to receive strictly medical services such as dental care, cosmetic surgery, assisted fertilization [22]. For wellness tourism and spa tourism the decision to travel is determined by the need to receive wellness treatments.

Although, health tourism has experienced considerable diffusion over the years, there is still opaque data on the

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phenomenon [23] due to the fact that many data are owned by private entities but also to the existence of the privacy legislation that limits the dissemination of data [24], [25]. So, it becomes difficult to adequately estimate the impact of health tourism on the tourism sector and on the economy, in general.

Researchers have tried to individuate the key driver for which citizens travel across the world in search of medical treatments [26]-[29]. Among all, the perceived quality of the medical service is certainly one of the factors capable of influencing the decision to search medical treatment or assistance beyond national borders. The lack of services in one's own country is also one of the drivers of healthcare mobility [18], [30], [31]. Furthermore, it is also the ability to access health services at relatively lower costs that motivates individuals to seek treatment outside national borders [18], [30]-[32]. Driven by these reasons, 49% of European citizens are willing to travel for health causes [33].

The development of health tourism was also favored by the regulatory interventions of the authorities. Moreover, the growth of flows of medical tourists in Europe encouraged the European Union's Directive 2011/24/EU on patients' rights in cross-border health care which solidified the rights of the citizens in the European Union to look for medical treatment in the member states. The directive, among other things, boosts the financial sustainability of national health systems. In fact, it provides the possibility for patient-citizens to be reimbursed for medical treatment expenses received outside national borders. Reimbursement takes place at the cost that such treatment would have had if requested in one's own country. The flow of medical tourists is estimated at 7 million people for a value in euros of 100 billion dollars. The latter is appreciated to rise to 200 billion in 2019 [34]. Healthcare tourism in Europe generates estimated revenues in euros of 12 billion [34]. In 2014, the European healthcare tourism market was characterized by 61.1 million of arrivals of which 56 million are domestic arrivals and the remaining 5.1 million are represented by international arrivals with flows of healthcare tourists from all over the world [34]. Many studies provide evidence about future health tourism growth [35]-[37]. Encouraging the propagation of health tourism brings numerous advantages, including stabilizing the tourism sector by reducing its seasonality [38].

III. RESEARCH AIMS

Reviews show that many studies investigated how health tourism impacts on the economy of a country [4], [7], [8], [12], especially in terms of GDP growth [1], [3]. However, there is no scientific evidence about the effect that it can exercise on the healthcare companies' performance. Starting from this lack in literature, the study aims to verify the following research ideas:

- 1) Healthcare companies with practice in medical tourism have better performances than other healthcare companies, also being able to count on cross-border demand;
- 2) Italian companies which practice health tourism are better performing than the comparable ones in the rest of EU28, considering that Italy is one of the main destinations of international tourism and has high quality specializations.

In detail, the work aims to verify whether companies that also operate in health tourism are better performing or only the "best" companies choose to diversify their operations by opening up to health tourism.

IV. METHODOLOGY AND DATA

A. Gap Analysis Method

To test the impact of health tourism on economic and financial performance, we adopt the gap analysis method that allows to measure differences in performance between companies. In particular, we conduct three distinct performance survey levels in which are compared:

- 1) Italian vs. EU28 healthcare companies with operativity in health tourism (health tourism companies);
- 2) Italian vs. EU28 healthcare companies without operativity in health tourism (no health tourism companies); and,
- 3) Italian health tourism companies vs. Italian no health tourism companies.

Using the panel survey approach, the information was collected with both cross section and time series characteristics; this permits to observe the different companies in the same period of time and to study the variable respect to time. Furthermore, given the assumption that company performance depends on economic and financial management, the analysis was divided into two distinct sub-levels:

- profitability analysis; and,
- financial efficiency analysis.

The ratios used are selected among those considered more explanatory of company performance by the literature [39]-[42]. So, for the profitability analysis the following ratios were chosen:

- ROE - return on equity;
- ROCE - return on investment;
- ROA - return on assets;
- Profit Ratio - profitability before taxes;
- EBITDA Ratio - profitability before tax, depreciation and financial charges;
- EBIT Ratio - profit before tax and interest;
- Cash Flow/Turnover - monetized percentage of revenues.

They are computed as in Table I.

TABLE I
PROFITABILITY RATIOS: FORMULAS

Ratios	Formulas
ROE (%)	(Profit before tax / Shareholder's equity)
ROCE (%)	(Profit before tax + Interest paid) / (Shareholders funds + Noncurrent liabilities)
ROA (%)	(Profit before tax/Total assets)
PROFIT RATIO (%)	(Profit before tax /Operating revenue)
EBITDA RATIO (%)	(EBITDA/Operating revenue)
EBIT RATIO (%)	(EBIT/Operating revenue)
CASH FLOW/TURNOVER (%)	(Cash flow/Operating revenue)

For the financial efficiency analysis, we employed:

- Interest Coverage Ratio - degree of coverage of financial charges with the operating result;
- Stock Turnover - monetary cycle of stocks;

- Credit Period - monetary cycle of trade receivables;
- Collection Period - monetary cycle of trade payables;
- Current Ratio - ability to meet short-term debt t with short-term loans;
- Liquidity Ratio - ability to meet short-term payables with company liquidity;
- Shareholder Liquidity Ratio - impact of shareholders' equity on non-current liabilities;
- Solvency Ratio - impact of equity on total assets;
- Gearing Ratio - debt ratio computed as debt to equity ratio;
- Net Asset Turnover - amount of revenues compared to the value of the assets.

TABLE II
FINANCIAL EFFICIENCY RATIOS: FORMULAS

Ratios	Formulas
Interest Coverage Ratio (X)	Operating profit/Interest paid
Stock Turnover (X)	Operating revenue/Stocks
Credit Period (Days)	(Creditors/Operating revenue)* 360
Collection Period (Days)	(Debtors/Operating revenue)* 360
Current Ratio (X)	Current assets/Current liabilities
Liquidity Ratio (X)	(Current assets - Stocks)/Current liabilities
Shareholders Liquidity Ratio (X)	Shareholders funds/Noncurrent liabilities
Solvency Ratio (Asset Based) (%)	(Shareholders funds/Total assets)
Gearing Ratio (%)	((Noncurrent liabilities + Loans)/Shareholders funds)
Net Assets Turnover (X)	Operating revenue/(Shareholders funds + Noncurrent liabilities)

According to the method of [43] and [44], the outliers were identified and eliminated to improve the statistical significance of data. This method is based on the acceptance thresholds defined by the distribution quartiles: after calculating the interquartile difference, i.e., the difference between the third and first quartiles of each distribution, we determine the lower limit (lower inner fence) and the upper limit (upper inner fence), considering the following formulas:

- lower inner fence = $Q1 - 1.5 * IQ$
- upper inner fence = $Q3 + 1.5 * IQ$

Once eliminating the outliers, we conduct the Shapiro Wilk test in order to verify the normality of the distributions. Then, we computed the mean value of the ratios for the samples represented respectively by Italian and other EU28 companies. Difference of means was calculated as "IT health tourism companies - EU28 health tourism companies" in the first level of analysis and "IT no health tourism companies - EU28 no health tourism companies" in the second level of analysis. In the third level, we computed difference of means as "IT health tourism companies-IT no health tourism companies". So, a positive value expresses that the mean of a variable for Italian companies is higher than European ones (first and second level of analysis) and that Italian health tourism companies have higher value than Italian no health tourism ones (third level of analysis). The mean values obtained were subjected to the t-test with the purpose of determining if there is a significant difference between the means of samples.

B. Data

We consider data from Amadeus Bureau van Dijk database

regarding companies from EU28 countries, having the following requirements:

- activity code 86.10 (hospital services) of the Nace classification;
- operating revenue at least 1 million euro; and,
- availability of financial statements in the period 2013-2017.

Overall, the database is composed by 7,418 companies of which 602 (8%) were Italian and the remaining 6,816 (92%) from other EU28 countries. For these companies, web sites were analyzed to find useful information to classify healthcare companies into two distinct groups:

- healthcare companies with operativity in health tourism (i.e. health tourism companies);
- healthcare companies without health tourism operativity (i.e. no health tourism companies).

On this basis, for Italy we found that n. 119 healthcare companies (20%) show in their website a specific page for health tourism and n. 483 (80%) have not operativity in health tourism. For EU 28, n. 1,056 healthcare companies (15%) show in their website a specific page for health tourism and n. 5,760 (85%) have not operativity in health tourism.

V. RESULTS

A. First Level of Analysis: Italian vs. EU28 Health Tourism Companies

In this first level of investigation, the performances of Italian health tourism companies are compared with that of competitors located in the other EU28 countries. We assume that Italy, given the characteristics of the companies and the presence of high specializations, is able to capture more value from health tourism than other European countries.

Findings show positive profitability differentials for Italian health tourism companies; throughout the period, ROE, ROCE, ROA, Profit Ratio, EBITDA Ratio, EBIT Ratio, Cash Flow/Turnover indicators for Italian companies showed better profitability conditions. As it can be seen from the results obtained (Table III), the differences in the average values are always positive for the area of profitability which means that the Italian health tourism records average profitability values higher than their European peers. Considering only the statistically significant means, we have that:

- ROE difference varies between minimum 9.37% and maximum 10.84%;
- ROCE difference varies between the minimum 2.98% and the maximum 5.73%;
- ROA difference varies between minimum 1.13% and maximum 2.23%;
- Profit Ratio difference varies between the minimum 2.38% and the maximum 3.53%;
- EBITDA Ratio difference varies between the minimum 1.92% and the maximum 4.18%;
- EBIT Ratio difference varies between the minimum 2.61% and the maximum 4.64%;
- Cash Flow/Turnover difference varies between the minimum 1.05% and the maximum of 2.23%.

TABLE III
PROFITABILITY RATIOS: IT-EU 28 (GAP) - HEALTH TOURISM COMPANIES

Years	ROE (%)	ROCE (%)	ROA (%)	Profit Ratio (%)	EBITDA RATIO (%)	EBIT RATIO (%)	Cash Flow/turnover (%)
2013	9.81 ***	5.73 ***	2.21 ***	3.53 ***	4.18 ***	4.64 ***	0.76
2014	9.57 ***	4.33 ***	0.59	2.38 ***	3.11 ***	3.35 ***	0.72
2015	10.53 ***	4.85 ***	1.29 **	3.27 ***	3.54 ***	3.44 ***	1.25 **
2016	10.84 ***	3.28 ***	1.13 **	2.61 ***	1.92 ***	2.61 ***	1.05 *
2017	9.37 ***	2.98 ***	2.23 ***	3.45 ***	3.37 ***	3.20 ***	2.23 ***

Significance level: *10%, **5%, ***1%

TABLE IV
FINANCIAL EFFICIENCY RATIOS: IT-EU 28 (GAP) - HEALTH TOURISM COMPANIES

Years	Interest Coverage ratio (x)	Stock Turnover (x)	Credit Period (days)	Collec. Period (days)	Liquidity Ratio (x)	Shareholder Liquidity ratio (x)	Solvency ratio (%)	Current Ratio (x)	Gearing (%)	Net asset turnover (x)
2013	0.93	22.09 ***	81.81 ***	60.20 ***	-0.37 ***	-0.37	-13.94 ***	-0.44 ***	58.11 ***	-0.04
2014	0.68	25.12 ***	74.19 ***	64.75 ***	-0.40 ***	-0.64 ***	-16.31 ***	-0.46 ***	80.62 ***	0.06
2015	0.69	21.00 ***	67.55 ***	62.64 ***	-0.66 ***	-0.78 ***	-15.59 ***	-0.78 ***	83.27 ***	0.06
2016	0.53	22.75 ***	65.73 ***	53.05 ***	-0.34 ***	-0.94 ***	-15.18 ***	-0.45 ***	82.13 ***	-0.05
2017	0.54	28.49 ***	63.29 ***	52.99 ***	-0.30 ***	-1.10 ***	-14.68 ***	-0.46 ***	91.7 ***	-0.06

Significance level: *10%, **5%, ***1%

On the other hand, they suffer from lower financial efficiency than European competitors as demonstrated by Stock Turnover, Credit Period, Collection Period, Current Ratio, Liquidity Ratio, Shareholder Liquidity Ratio, Solvency Ratio and Gearing (Table IV). Italian companies with operation in health tourism show a critical position in terms of liquidity. This is confirmed by the financial efficiency ratio detailed below:

- Stock Turnover difference varies between the minimum 21.00 and the maximum 28.49;
- Credit Period difference varies between minimum of 63.29 days and maximum of 81.81 days;
- Collection Period difference varies between the minimum of 52.99 days and the maximum of 64.75 days;
- Liquidity Ratio difference varies between the minimum -0.66 and the maximum -0.30;
- Shareholder Liquidity Ratio difference varies between the minimum -1.10 and the maximum -0.64;
- Solvency Ratio difference varies between the minimum -16.31% and the maximum -13.94%;
- Current Ratio difference varies between the minimum -0.78 and the maximum -0.44;
- Gearing Ratio difference varies between the minimum 58.11% and the maximum 91.77%;

Positive differentials in the Stock Turnover and the Credit Period, only partially compensated by positive differentials in the Collection Period, indicate that Italian health tourism companies have higher difficulties in the management of working capital, as evidenced also by the negative differentials of the Current Ratio and the Liquidity Ratio.

Negative differentials in the Shareholder Liquidity Ratio and the Solvency Ratio indicate the reduced capitalization of the Italian health tourism companies, as confirmed by the positive differentials of the Gearing Ratio which underlines the greater use of debt.

B. Second Level of Analysis: Italian vs. EU28 no Health Tourism Companies

We conducted a second level of investigation, where the

performance of the Italian no health tourism companies was compared to the performance of the peers established in the other counties of EU28.

The differences between Italy and EU28 in this level of gap analysis (no health tourism) appear less intense than the differences between Italy and EU28 obtained for the first level of analysis (health tourism). The second level of analysis shows that Italian no health tourism companies have on average reported greater profitability than the comparable ones of the EU28. This level of investigation confirms the superiority of Italian healthcare companies. In this regard, it should be noted (Table V) that Italy is known worldwide for its specializations in the health sector. The superiority of Italian companies emerges, although not operating in health tourism.

Considering only the statistically significant differences of means, from the analysis on profitability level emerges that:

- ROE positive difference fluctuates between the minimum of 2.57% and the maximum of 5.79%;
- ROCE positive difference fluctuates between the minimum of 0.92% and the maximum of 1.40%;
- Profit Ratio positive difference fluctuates between the minimum of 1.29% and the maximum of 2.38%;
- EBITDA Ratio positive difference fluctuates between the minimum of 3.16% and the maximum of 4.21%;
- EBIT Ratio difference positive fluctuates between the minimum of 2.36% and the maximum of 3.08%;
- Cash Flow/Turnover positive difference fluctuates between the minimum of 1.21% and the maximum of 2.03%.

At the same time, Italian no health tourism companies appear less financially efficient (Table VI). It is noted that:

- Interest Coverage Ratio difference fluctuates between the minimum -1.79 and the maximum -1.59;
- Stock Turnover difference varies between the minimum 20.04 and the maximum 38.00;
- Credit Period difference fluctuates between the minimum 61.89 days and the maximum 112.59 days;

- Collection Period difference varies between the minimum 38.89 days and the maximum 56.21 days;
- Liquidity Ratio difference varies between the minimum -0.14 and the maximum -0.01;
- Shareholder Liquidity Ratio difference varies between minimum -1.69 and maximum -1.27;
- Solvency Ratio difference varies between the minimum -11.08% and the maximum -8.14%;
- Current Ratio difference varies between the minimum -0.18 and the maximum -0.07;
- Gearing Ratio difference varies between the minimum 84.41% and the maximum 110.99%;
- Net Asset Turnover negative difference oscillates between minimum -0.94 and maximum -0.81.

TABLE V
PROFITABILITY RATIOS: IT-EU 28 (GAP) - NO HEALTH TOURISM COMPANIES

Years	ROE (%)	ROCE (%)	ROA (%)	Profit Ratio (%)	EBITDA RATIO (%)	EBIT RATIO (%)	Cash Flow/turnover (%)
2013	2.93 **	0.92 *	-0.33	1.65 ***	3.23 ***	2.44 ***	0.30
2014	1.35	0.03	-0.70 ***	1.29 ***	3.30 ***	2.36 ***	0.25
2015	2.57 ***	1.20 ***	-0.25	2.02 ***	3.86 ***	3.08 ***	1.21 ***
2016	4.00 ***	0.40	0.01	2.14 ***	3.16 ***	2.39 ***	1.35 ***
2017	5.79 ***	1.40 ***	0.38	2.38 ***	4.21 ***	3.06 ***	2.03 ***

Significance level: *10%, **5%, ***1%

TABLE VI
FINANCIAL EFFICIENCY RATIOS: IT-EU 28 (GAP) - NO HEALTH TOURISM COMPANIES

Years	Interest Coverage ratio (x)	Stock Turnover (x)	Credit Period (days)	Collec. Period (days)	Liquidity Ratio (x)	Shareholder Liquidity ratio (x)	Solvency ratio (%)	Current Ratio (x)	Gearing (%)	Net asset turnover (x)
2013	-0.89 ***	35.61 ***	112.59 ***	56.21 ***	-0.14 ***	-1.27 ***	-9.95 ***	-0.18 ***	110.99 ***	-0.81 ***
2014	-1.79 ***	32.65 ***	99.01 ***	54.37 ***	-0.09 ***	-1.46 ***	-11.08 ***	-0.15 ***	85.51 ***	-0.82 ***
2015	-1.55 ***	20.04 ***	92.27 ***	51.12 ***	-0.11 ***	-1.68 ***	-8.14 ***	-0.18 ***	88.43 ***	-0.82 ***
2016	-0.98 **	33.83 **	72.93 **	43.07 ***	-0.03	-1.63 ***	-9.08 ***	-0.07	88.49 ***	-0.94 ***
2017	1.59 **	38.00 **	61.89 **	38.89 ***	-0.01	-1.69 ***	-8.53 ***	-0.07	84.41 ***	-0.90 ***

Significance level: *10%, **5%, ***1%

Results for this second level of analysis show that:

- Italian no health tourism companies, if compared to EU28 ones, have a lower operational capacity to cover the interests, on the contrary of health tourism companies for which the first level highlighted a positive Interest Coverage Ratio gap for Italy;
- Italian no health tourism companies, like Italian health tourism companies, have greater difficulties in managing working capital and corporate liquidity than EU peers, given the positive differentials of the Net Asset Turnover, the Stock Turnover and the Credit Period (only partially offset by the positive differentials of the Collection Period) as well as the negative differentials of the Current Ratio and Liquidity Ratio, of the Shareholder Liquidity and of the Solvency Ratio;
- Italian no health tourism companies, like Italian health tourism companies, have a lower capitalization level compared to EU28 ones, considering the negative differentials of the Shareholder Liquidity Ratio and the Solvency Ratio as well as the positive differentials of the Gearing Ratio, consequently the greater use of debt.

Like for the first level of analysis, the superiority of Italian companies is confirmed: in detail, Italian no health tourism companies are better performing in terms of profitability than EU28 no health tourism healthcare companies. However, the differences between Italy and the rest of the EU28 are more contained.

C.Third Level of Analysis: Italian Health Tourism Companies vs. Italian no Health Tourism Companies

As further confirmation of the results that emerged, the third level of investigation analyzes the gap analysis between health tourism and no health tourism companies belonging to the Italian health system. We want to ascertain the differential effects that health tourism operations generate in the same territorial area, therefore regardless of the value produced by the country variable.

In all the years, the difference of means computed for ROE, ROCE, ROA, Profit Ratio, EBITDA Ratio, EBIT Ratio, Cash Flow/Turnover showed more profitability for health tourism companies (Table VII). Considering only the statistically significant means, for profitability it emerges that:

- ROE positive difference varies between the minimum 4.75% and the maximum 6.83%;
- ROCE difference is positive and varies between the minimum 1.62% and the maximum 3.17%;
- ROA positive difference varies between the minimum 1.20% and the maximum 2.14%;
- EBITDA Ratio positive difference varies between the minimum 1.52% and the maximum 1.78%;
- EBIT Ratio positive difference is 1.59%;
- Cash Flow/Turnover positive difference varies between the minimum 0.97% and the maximum 1.81%.

Regarding the financial efficiency analysis, we have found worse conditions of financial efficiency (Table VIII). It is noted that:

- Interest Coverage Ratio difference varies between the minimum -0.64 and the maximum 1.49;

- Stock Turnover negative difference oscillates between the minimum -22.92 and the maximum -12.42;
- Credit Period negative difference oscillates between the minimum -27.21 days and the maximum -20.95 days;
- Collection Period difference is 10.01;
- Liquidity Ratio negative difference fluctuates between the minimum -0.22 and the maximum -0.15;
- Shareholder Liquidity Ratio difference fluctuates between the minimum 0.30 and the maximum 0.52;
- Current Ratio negative difference varies between the minimum -0.19 and the maximum -0.16;
- Gearing Ratio significant difference is -44.23%;
- Net Asset Turnover positive difference oscillates between the minimum 0.39 and the maximum 0.51.

TABLE VII
PROFITABILITY RATIOS: IT (GAP) - HEALTH TOURISM VS. NO HEALTH TOURISM COMPANIES

Years	ROE (%)	ROCE (%)	ROA (%)	Profit Ratio (%)	EBITDA RATIO (%)	EBIT RATIO (%)	Cash Flow/turnover (%)
2013	3.07	3.17 **	2.14 ***	1.13	1.78 **	1.59 **	1.50 **
2014	6.83 ***	3.11 ***	1.37 **	1.08	1.52 *	1.03	1.81 ***
2015	6.00 ***	2.88 ***	1.75 ***	0.94	0.77	0.35	0.97 *
2016	4.75 **	1.62 *	1.20 **	0.34	-0.12	0.39	0.68
2017	2.23	0.85	1.74 ***	0.96	-0.29	0.10	0.29

Significance level: *10%, **5%, ***1%

TABLE VIII
FINANCIAL EFFICIENCY RATIOS: IT (GAP) - HEALTH TOURISM VS. NO HEALTH TOURISM COMPANIES

Years	Interest Coverage ratio (x)	Stock Turnover (x)	Credit Period (days)	Collec. Period (days)	Liquidity Ratio (x)	Shareholder Liquidity ratio (x)	Solvency ratio (%)	Current Ratio (x)	Gearing (%)	Net asset turnover (x)
2013	1.49 *	-20.99 ***	-27.21 ***	0.32	-0.00	0.52 **	0.41	-0.02	-44.23 ***	0.39 ***
2014	1.95 *	-14.72 *	-21.65 **	5.48	-0.10	0.30 *	-0.63	-0.07	3.27	0.41 ***
2015	1.68	-12.42 *	-20.95 ***	5.98	-0.22 ***	0.35 **	-0.69	-0.19 ***	4.56	0.46 ***
2016	1.15	-18.86 **	-3.77	5.23	-0.11	0.01	-1.15	-0.10	4.02	0.51 ***
2017	-0.64 ***	-22.92 ***	6.72	10.02 **	-0.15 **	0.09	-0.63	-0.16 **	14.09	0.41 ***

Significance level: *10%, **5%, ***1%

Italian no health tourism companies confirm the conclusions reached in the two previous analysis levels:

- positive differentials in the Interest Coverage Ratio show the best ability of health tourism companies to cover interests with operating income;
- positive differentials in the Stock Turnover and the Credit Period, only partially compensated by positive differentials in the Collection Period, indicate the greater difficulties met by health tourism companies in the management of working capital, as evidenced also by the negative differentials of the Current Ratio and Liquidity Ratio;
- negative differentials in the Shareholder Liquidity Ratio and of the Solvency Ratio indicate the reduced capitalization of the Italian health tourism companies, as confirmed by the positive differentials of the Gearing Ratio as a consequence of the greater use of debt.

VI. CONCLUSIONS

- The effects of health tourism on health companies' performance were investigated.
- Many studies analyzed the impact of health tourism on the economy but not on the performance of health companies.
- COVID-19 diffusion forces healthcare companies to review their offer of health services from a strategic perspective.
- It would be better for companies to associate health tourism operativity with traditional health activity.
- Italian healthcare companies, with and without operativity in health tourism, are better performing than European

ones.

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