



Investigating profitability differences between hotel MNEs and DMEs in South Mediterranean European countries

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ABSTRACT

The aim of the paper is to investigate the profitability differences between hotel multinational enterprises' subsidiaries and domestic firms in France, in Italy, in Spain, in Greece and in Portugal. The data permits a comparison between a group of MNEs subsidiaries and a group of DMEs for the period 2000 – 2009. An econometric model has been employed to find support for the ownership advantages model of foreign production. Estimation results indicate that multinationality has a positive impact on firms' performance. The analysis also reveals that the determinants of performance of MNEs and DMEs partially differ.

Keywords: Greece, Tourism and Hospitality, Multinational Enterprises' Subsidiaries (MNEs), Performance

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Introduction

Theory and empirical research show that the hypothesis that multinational enterprises (MNEs) will be more profitable than domestic enterprises (DMEs) in the host industry is not always real. As several authors from Hymer (1960) have pointed out, a subsidiary entering into a foreign market may be faced with certain disadvantages. These disadvantages depend on specific industrial and market structures as well as the economic, social and political structure of the host country. Domestic firms may enjoy learning curves operating in the market previously but also may possess ownership-specific (O) advantages of different types than that of multinationals - income generating assets (such as domestic R&D, or local market reputation) that are not originated from or promote multinationality. It is hard to imagine firms in any competitive market without ownership advantages.

The country specific advantage that MNEs have is reflected in their resource base, their organizational design, and their strategies (Chacar, Celo, Thams, 2010). Starting with the work of the legendary Dunning, we were made aware of location-specific advantage that may accrue to firm (Chacar, Celo, Thams, 2010). Dunning argues those firms draw on country-specific advantages that are present in the home country and build upon them as they internationalize (Chacar, Celo, Thams, 2010). As firms employ the resources conferred by their home nations they are able to develop a competitive advantage in foreign markets which grants them a favorable position compared to local firms which are unable to exploit the same assets (Nachum, 2003). Scholars have also acknowledged that national characteristics influence the organizational design of an MNE (McKendrick, 2001). Bartlett and Ghoshal (1989) also highlight the influence of national characteristics in the global strategy employed by MNEs from various countries. In addition to the location specific advantages of home nations, MNEs are also likely to have firm specific advantages. Only companies with strategic assets or a competitive advantage are likely to first succeed in their countries (Chacar, Celo, Thams, 2010). As they consider internationalization, these firms already have an arsenal of resources that they can use to defend against competitors, be it local or global. In addition, these MNEs are larger and are able to reap economies of scale (Caves, 1996). For example, some firms may share the same brand globally, such as the Walt Disney Company, and hence have lower marketing and advertising costs. Others, such as PP, may combine their purchasing and are able to negotiate lower prices of supply. In addition, these firms are able to spread their overhead costs over numerous divisions and hence will reap the advantage of economies of scope (Tallman and Li, 1996). As they internationalize, these firms will also build up essential skills on the internationalization process and the process of entering into a new country and will develop routines that will help them lower the cost of

entry into a country (Kobrin, 1991). When firm-specific advantages are combined with location specific advantages and unique resources that are available in host country resources (Porter, 1990), the MNE then has a seemingly insurmountable advantage. While this above would have us conclude that MNE should always outperform domestic firms, we can see below that such conclusion could not be made easily.

Hymer (1960) along other famous IB gurus such Kindleberger (1969) pointed to the dangers that the unfamiliarity with a particular foreign country may pose to an internationalizing firm and to the additional cost that MNEs have to incur when investing abroad which he referred as the “cost of doing business abroad”. Hymer (1960) famously stressed the distinct disadvantages faced by foreign firms vis-à-vis national firms which possess “the general advantage of better information about their country, its economy, its language, and its politics.” Zaheer (1995) lashed out these ideas arguing that foreign firms face a liability’ that is derived from the firms’ lack of experience and knowledge about the foreign environments in which they operate. Zaheer (1995) revisited the original “cost of doing business abroad” idea developed by Hymer (1960) who focused on “market-driven costs” to concentrate on the “structural/relational and institutional costs of doing business abroad” (Zaheer, 2002). The author defined the “structural/relational costs associated with a foreign firm’s network position in the host country and its linkages to important local actors” (Zaheer, 2002). Kostova and Zaheer (1999) asserted that institutional costs impact the legitimacy of foreign firms vis-à-vis local companies.

Empirical studies reveal that it is not necessary for a subsidiary to earn higher profits than a domestic firm. According to Dunning (1993), discounting for risk, all that is required is that, at the margin, it should be earning profits at least equal to its opportunity costs. MNEs may be more efficient in intermediate product markets, but not necessarily in all final product markets they operate. Moreover their presence in a foreign industry may have positive spill-over effects into domestic firms operating the same industry.

The following interpretation of the empirical analysis on profitability differences between MNEs and DMEs reveals that while this difference is significant in developed countries (DCs), the analysis appears to yield mixed results in less developed countries (LDCs).

In a study for India and Colombia, Lall (1976) found no support for his hypothesis that the existence of foreign-controlled firms does exercise a significant influence on financial performance. However, he argued that it was difficult to make general inferences from two data sets (India and Colombia) in a short period of time (1968-69). Fairchild (1977), using a static analysis for Mexico (mean differences),

measuring profitability (as return of equity, return on invested capital) for MNEs and domestic firms found no significant differences between the two groups. However, he mentioned different management practices and other parameters influencing performance like transfer pricing, and also certain disadvantages faced US firms penetrating Mexico's markets. Similar results are found for Uganda (Gershenberg, 1976), and for Latin America, Fairchild and Sosin (1986). For Brazil's electrical industry, Newfarmer and Marsh (1981) demonstrated that domestic firms were more profitable than MNEs. In a study for Korea, Koo (1985) found that MNEs were not more profitable than domestic firms.

In Portugal, Simoes (1985) demonstrated that foreign-owned firms were more profitable (measured as profits over turnover ratio) than domestic firms in 1979. In Belgium, Van Den Bulcke (1985) used discriminant analysis to isolate the most distinctive features of foreign enterprises in a sample of 170 subsidiaries and 170 domestic firms in 1976. He found that the most discriminating variables were competitive pressure, use of R&D of other firms, the rate of profitability, and the sales per employee as a measure of productivity. Ros (1987) found that subsidiaries in Mexico outperformed Mexican firms in at the beginning of the 1980s.

Kumar (1990) found systematic differences in profit margins between multinational enterprises and Indian enterprises in 43 manufacturing industries. Also, Kim and Lyn (1990), comparing the financial performance of MNE subsidiaries in the US with that of US firms, found that US firms were on average more efficient than foreign-owned firms.

The aim of this paper is to investigate the profitability differences between hotel MNEs' subsidiaries and domestic firms in Spain, France, Italy, Greece and Portugal. The core of the analysis relies on the existence of ownership advantages (Hymer, 1960; Kindleberger, 1969; Dunning, 1993), which gives a competitive edge and, hence, a better performance to those firms possessing them. The data permits a comparison between a group of MNEs subsidiaries and a group of DMEs for the period 1999 – 2009. An econometric model has been employed to find support for the O advantages model of foreign production. Additionally, it is hypothesized that MNEs are fundamentally different from DMEs due to the type of ownership and due to the degree of possession of Ownership/Location/Internalisation (OLI) competitive advantages.

Therefore, two hypotheses will be examined.

Hypothesis 1 (H_1): The extend of multinationality will have a positive impact on the firms' performance.

Hypothesis 2 (H_2): The determinants of the performance of MNEs and DMEs differ.

Performance Measurement

A firm's performance can be measured in terms of its profitability and market performance. Typically, profitability is measured in terms of return on the capital invested in the business or return on the revenues generated during a given period. On the other hand, market performance is measured in terms of market indicators such as share price and dividend yield ratio (Barbosa and Louri, 2005). Hall and Weiss (1967) used return on assets as the performance measure to test the relationship between firm size and profitability. Beard and Dess (1981) used return on investment (ROI) as the measure of firm performance, which was used to test the relationship between corporate level strategies and firm performance using regression analysis. Operational variables, such as market share, product quality, etc. are assumed to reflect more accurately the firm's 'fundamentals' (Venkatraman and Ramanujam, 1986).

According to Capon et al. (1990), in order to capture firm performance from a ROI perspective, researchers used return on equity, return on capital, return on assets, return on sales, and price/cost margin as variables in their effort to demonstrate the relationship between the independent variable and firm performance.

Scholars have tended to operationalize financial performance either with accounting-based (return on total assets or ROA, return on total shareholders' equity or ROE, or return on sales or ROS) or market-based measures such as Tobin's Q. There are several reasons why accounting-based figures are good proxies for a firm's financial performance (Geringer et al., 2000; Hoskisson et al., 1993). First, managers and business practitioners use ROA and ROS frequently to measure managerial effectiveness (Geringer et al., 2000), as these measures are "typically related" (Robins and Wiersema, 1995). Secondly, "changes in stock prices tend to follow the announcement of such figures as ROA or ROS, indicating that these reports have important signaling effects" to investors (Geringer et al., 2000). Dubofsky and Varadarajan (1987) further note that they expect market and accounting-based measures to be consistent.

In a number of cases, researchers have acknowledged the inherent differences between market-based and accounting based measures and have therefore used both. Reporting both performance measures would result in confusion since multinationality would then simultaneously seem to lead to diverging effects on performance. Dubofsky and Varadarajan (1987) speculated that a discrepancy between accounting based measures and market-based measures may occur because of time lags reflecting performance outcomes from a particular course of

action. A strong divergence between accounting based and market-based performance typically also arises in volatile environments or after an internal or external shock (Barbosa and Louri, 2005).

In our analysis, we focus on one dependent variable that reasonably expected to indicate financial performance, namely return on sales (PERF). We measure return on sales by the net income before taxes and interest to sales.

Data and sample description

Our sample covers 387 active hotels in France, in Italy, in Spain, in Greece and in Portugal (South European countries) for a period of 10 years (2000-2009). Our primary source of information is the AMADEUS database, which covers a large number of European firms. AMADEUS is constructed by Bureau Van Dijk (BvDEP) in collaboration with 30 large European Information Providers. It contains normalized, with respect to currency and accounting standards and thus comparable information on almost 1.5 million European corporations. In addition to the standard financial statements, AMADEUS includes comprehensive information about the ownership structure of firms, which allows us to identify ownership stakes held by each company in entities located in other countries. We are thus able to construct a unique data set containing detailed information about European firms and all of their domestic and foreign subsidiaries. Additionally, for all data that was not available in AMADEUS, we use ORBIS database. The ORBIS database by BvDEP is a commercial database which contains administrative information on 65 million companies or business records around the world. Over 99% of the companies covered in this database are private companies.

The explanatory variables (Vector X)

The choice of explanatory variables is theoretically driven and aims to proxy firm- and industry-specific characteristics that are likely to determine firms' performance regardless of ownership structure. We focused to a large set of candidate variables and measures to find a best model specification. The unavailability of alternative measures for some variables prevented us from exploring this issue in more depth. Even so, we are confident that our empirical variables are reasonable proxies for the determinants of firms' performance.

With reference to firm-specific characteristics (all lagged by one year), we measure firm size (SIZE) by the natural logarithm of the total assets and firm age (AGE) by the number of years a firm is operating in an industry. In order to proxy financial risk we define the LIQUIDITY as the ratio of cash and cash equivalent over total assets. Our next independent variable measures the labour productivity (PROD)

and is the ratio of turnover over employees. Leverage (LEVERAGE) measures the percentage of external debt over the total capital employed.

Our next key variables are related to the participation of a multinational enterprise to the ownership structure of the company under investigation. The participation of an MNE to the ownership structure (MNE) is captured by a dummy variable. AMADEUS provides information on the Global Ultimate Owner (companies that control directly or indirectly at least 10% of the company under investigation) of the corporation and we used this information to classify companies as subsidiaries of MNEs (MNE = 1) of purely domestic companies (MNE = 0). Although someone could use the actual ownership percentage as given by AMADEUS, the results using the dummy variable are identical and for simplicity reasons we report only the ones with the dummies. Finally, we separated the hotels by introducing a variable that take value 0 if the major stakeholder is a hotel, 1 if the major stakeholder is a touristic company (related diversification) and 2 major stakeholder is not a touristic related company (unrelated diversification) (SECTOR).

Baseline specifications

In order to measure the ownership effect on company performance for time-series cross-sectional data, a random effects model (REM) for both MNEs and DMEs was applied. As Greene (1997) points out, the fixed effects approach is very costly in terms of degrees of freedom lost since each unit requires an additional (dummy variable). Additionally, the shifts of the regression function reflected by unit-specific effects may not be generalized to observations outside the study sample. However, we chose the best technique by using the Lagrange Multiplier test by Breusch and Pagan (1980) to test if a panel data model (FEM/REM) has to be preferred to an OLS estimation and in order to choose between FEM and REM we used the Hausman test, whose null hypothesis is that the unobserved explanatory variables is orthogonal to the regressor. In our study, a large value of the Lagrange statistic in the presence of a small Hausman statistic argued in favor of REM.

The basic model is presented as follows:

$$Y_{it} = a_0 + Xb_{it} + Z\gamma_{it} + \varepsilon_{it} + \mu_i, \quad (1)$$

where Y_{it} equals the return on sales of firm i for period t and vector X represents company specific explanatory variables, as described above. An ownership variable Z , (where $Z = 1$ if the firm is a subsidiary of an MNE and 0 otherwise), is used to split the regression line into two parts.

Equation (1) assumes that the slope coefficient is the same for all groups, that the error term has the same distribution for the two groups, and that the intercepts for

the two groups are different (a_0 and $a_0 + \gamma$, respectively). The component μ_i is the random disturbance characterizing the i -th observation and has a constant distribution through time. Here the hypothesis that $\gamma_{it} \neq 0$ is tested.

To examine the determinants of performance of MNEs and of DMEs, the performance function is divided into two equations, representing MNEs and DMEs, respectively:

$$MNE_{it} = a_1 + Xb_{1it} + \varepsilon_{it} + u_i \quad (2)$$

$$DME_{it} = a_2 + Xb_{2it} + \varepsilon_{it} + u_i \quad (3)$$

A separate regression relationship exists for MNEs and DMEs, which allows both intercepts and slopes to be different for the two groups. Here, we test that $a_1 \neq a_2$ and $b_1 \neq b_2$, which means that the determinants of performance between the two groups differ. To examine the statistical significance for any possible heterogeneity in intercepts, slopes, and overall, we make use of covariance analysis, contrasting the residual sums of squares of the restricted model (1), with those of the unrestricted models (2) and (3).

Preliminary tests

First, systematic differences in group means for each variable were analyzed using the unpaired t-test statistics and results are presented in Table 1.

For all five countries, most of the means are statistically significant. MNEs are, on average, older and bigger in size than DMEs. The variable AGE gives statistical significant results at the 10% level, while the variable SIZE does not give a statistical result. The leverage ratio of MNEs is also larger than the leverage ratio of DMEs, indicating a tendency to rely more on external funding, and the result is statistically significant at the 10% level. Additionally, MNEs have more liquidity than the DMEs. This result is mirrored in the positive and statistically significant sign of liquidity. The excess liquidity provides enough flexibility to respond to seasonal expenses and thus a high degree of liquidity is a prerequisite for performance (Demos et al., 2004). For the sum of the five South European countries, DMEs seem to be more productive than MNEs but this result is not statistically significant. Finally, MNEs seem to be more profitable than the DMEs, giving us a statistically significant result at the 5% level. This result provides a first strong support of our first hypothesis.

In Spain, on average, MNEs are older and bigger than DMEs, at 10% significance level. The leverage ratio of MNEs is larger than the leverage ratio of DMEs, at

significance 1% level. On the other hand, DMEs have more liquidity than MNEs, at 10% significance level. Also, DMEs seems to be more productive and profitable than MNEs, at 1% significance level. This result provides a very strong support of our first hypothesis.

In France, on average, MNEs are bigger in size and have larger leverage ratio than DMEs and the result is statistically significant at the 1% level. Furthermore, MNEs seem to be slightly more productive than DMEs at 1% significance level. DMEs are older than MNEs, at 10% significance level. Additionally, DMEs have slightly more liquidity and seems to be more profitable than the MNEs, at 1% significance level. This result rejects our first hypothesis.

For Italy, most of the means are statistically significant. DMEs are, on average, older than MNEs, at 10% significance level. Also, DMEs are bigger in size than MNEs but the result is not statistically significant. The leverage ratio of MNEs is also larger than the leverage ratio of DMEs, at 1% significance level. Additionally, MNEs have more liquidity than the DMEs, at 10% significance level. MNEs seem to be more productive than DMEs but this result is not statistically significant. Finally, MNEs seem to be more profitable that the DMEs, at 1% significance level. This result provides a very strong support of our first hypothesis.

For Greece, most of the means are statistically significant. DMEs are, on average, older than MNEs, at 10% significance level. Also, DMEs are bigger in size than MNEs and the result is statistically significant at the 10% level. The leverage ratio of MNEs is larger than the leverage ratio of DMEs, at 10% significance level. Additional, MNEs have more liquidity than the DMEs, at 1% significance level. For Greece, MNEs seem to be more productive than DMEs but this result is not statistically significant. Finally, MNEs seem to be more profitable that the DMEs, at 5% significance level. This result provides a very strong support of our first hypothesis.

For Portugal, some of the means are statistically significant. DMEs are, on average, older than MNEs, at 1% significance level. Also, DMEs are bigger in size than MNEs at 1% significance level. The leverage ratio of MNEs is also larger than the leverage ratio of DMEs, but this result is not statistically significant. Additionally, MNEs have more liquidity than the DMEs. This result is not statistical significant, as well. MNEs seem to be more productive and profitable than DMEs, at 5% significance level. This result provides a very strong support of our first hypothesis.

To summarize the results, concerning age, in Spain only the MNEs are older than the DMEs while we have the opposite results for the rest four countries (Greece, Italy, France, Portugal). Concerning leverage, in all five countries hotel MNEs

have larger ratio than DMEs indicating a tendency of MNEs to rely on external funding. Concerning liquidity, only Italian DMEs seem to have higher liquidity than MNEs while we have the opposite picture for the rest four countries. Concerning productivity, DMEs in Spain and in Portugal are more productive than their MNEs. For MNEs in Greece, Italy and France, the picture is totally the opposite as MNEs in these three countries which are more productive than their DMEs. Concerning size, MNEs in France and Greece are bigger than their DMEs. In Italy, Spain and in Portugal, DMEs are bigger than their MNEs. Concerning the performance, in all five countries apart from France, MNEs are more profitable than DMEs which supports partially our first hypothesis.

Table 1: Univariate Variable Means for MNEs and DMEs: Independent Samples (t-test)

<i>All 5 countries</i>	<i>DMEs</i>	<i>MNEs</i>	<i>Difference</i>	<i>t – value</i>
AGE	49.410	52.220	2.810	1.67 *
SECTOR	2.455	2.826	0.371	2.18 **
LEVERAGE	0.470	0.501	0.031	1.65 *
LIQUID	0.068	0.070	0.002	2.47 **
PROD	89.541	78.548	10.993	1.01
SIZE	19.115	23.157	4.042	1.42
PERF	0.442	0.645	0.203	2.04 **
<i>Spain</i>	<i>DMEs</i>	<i>MNEs</i>	<i>Difference</i>	<i>t – value</i>
AGE	44.720	50.080	5.36	1.88 *
SECTOR	2.120	2.230	0.11	3.24 ***
LEVERAGE	0.390	0.450	0.06	2.71 ***
LIQUID	0.088	0.0650	0.023	1.82 *
PROD	96.244	85.456	0.788	8.24 ***
SIZE	28.331	22.124	6.207	1.64 *
PERF	0.321	0.407	0.086	2.72 ***
<i>France</i>	<i>DMEs</i>	<i>MNEs</i>	<i>Difference</i>	<i>t – value</i>
AGE	51.210	48.413	2.797	1.69 *
SECTOR	2.110	2.546	0.436	3.33 ***
LEVERAGE	0.485	0.655	0.17	3.42 ***
LIQUID	0.096	0.093	0.003	2.59 ***
PROD	91.551	91.682	0.131	3.54 ***
SIZE	22.202	23.512	1.310	8.42 ***
PERF	0.489	0.375	0.114	3.35 ***
<i>Italy</i>	<i>DMEs</i>	<i>MNEs</i>	<i>Difference</i>	<i>t – value</i>
AGE	54.421	50.221	4.20	1.72 *
SECTOR	2.001	2.322	0.321	2.04 **
LEVERAGE	0.445	0.555	0.11	3.24 ***
LIQUID	0.076	0.099	0.023	1.82 *
PROD	76.584	95.398	18.814	1.04

SIZE	27.852	22.669	5.183	1.64
PERF	0.402	0.532	0.130	3.82 ***
Greece	DMEs	MNEs	Difference	t – value
AGE	38.11	29.15	8.96	1.92 *
SECTOR	2.012	2.230	0.218	1.69 *
LEVERAGE	0.330	0.420	0.09	1.72 *
LIQUID	0.061	0.065	0.004	2.58 ***
PROD	77.511	78.521	1.01	1.08
SIZE	25.362	19.251	6.111	1.66*
PERF	0.301	0.322	0.021	2.01 **
Portugal	DMEs	MNEs	Difference	t – value
AGE	25.12	22.14	2.98	1.71 ***
SECTOR	1.88	2.02	0.14	3.03 ***
LEVERAGE	0.23	0.35	0.12	1.08
LIQUID	0.041	0.049	0.008	1.44
PROD	82.513	79.682	2.831	1.59
SIZE	16.856	15.256	1.60	9.23 ***
PERF	0.258	0.289	0.031	2.48 **

*** statistically significant at 1%

** statistically significant at 5%

* statistically significant at 10%

Concerning the estimation of the regressions, a series of pre-regression tests were conducted in order to correctly specify and value the parameter estimates. Testing for multicollinearity was conducted on the independent variable data matrices by means of principal component and factor analysis. The matrices did not present any particular problem for the estimation of the regression coefficients for the three equations but estimation for each equation was undertaken in the presence of moderate multicollinearity. The correlation matrices (Tables 2, 3, 4) showed no significant correlation among the explanatory variables. Additional testing for multicollinearity was provided by means of the determinant of the variable correlation matrix and the variance inflation factors (VIF) (also shown in each regression equation).

**Table 2: Correlation matrix of variables for the Group of DMEs
(all five countries)**

PERF	1								
AGE	0.163	1							
SECTOR	0.199	0.045	1						
LEVERAGE	0.057	0.055	0.059	1					
LIQUID	0.478	0.015	0.137	-0.025	1				
PROD	0.213	-0.003	-0.064	0.019	0.132	1			
SIZE	0.073	0.064	0.020	-0.014	0.092	0.024	1		
MNE	0.093	-0.071	-0.085	-0.032	-0.002	0.008	0.078	1	
	PERF	AGE	SECTOR	LEVERAGE	LIQUID	PROD	SIZE	MNE	

**Table 3: Correlation matrix of variables for the group of MNEs
(all five countries)**

PERF	1								
AGE	-0.097	1							
SECTOR	0.249	0.152	1						
LEVERAGE	0.192	0.019	0.388	1					
LIQUID	0.072	0.206	0.385	0.473	1				
PROD	0.013	0.149	0.176	-0.170	0.001	1			
SIZE	0.081	0.152	0.720	0.009	0.138	0.469	1		
MNE	0.030	0.026	0.166	-0.022	0.003	0.118	0.310	1	
	PERF	AGE	SECTOR	LEVERAGE	LIQUID	PROD	SIZE	MNE	

Table 4: Correlation matrix of variables (MNEs and DMEs)

PERF	1								
AGE	0.264	1							
SECTOR	0.020	0.212	1						
LEVERAGE	0.255	0.488	0.225	1					
LIQUID	0.384	-0.002	-0.037	0.089	1				
PROD	0.351	0.135	-0.002	0.170	0.481	1			
SIZE	0.235	0.195	0.005	0.056	0.080	0.232	1		
MNE	0.099	0.006	-0.028	0.125	0.082	0.037	0.267	1	
	PERF	AGE	SECTOR	LEVERAGE	LIQUID	PROD	SIZE	MNE	

To test the first hypothesis, that multinationality has a positive impact on the firms' performance, equation 1 is fitted for the whole sample. The pooled data set has a total of 3617 observations, 734 DMEs and 2883 MNEs for a 10-year period. Table 2 reports the estimated coefficients (equation 1). To test the second hypothesis, that the determinants of profitability of MNEs and DMEs are different, equations 2 and 3 are fitted for the sample of DMEs and MNEs, respectively. The MNEs sample has a total of 2883 observations (275 firms for a 10-year period) and the DMEs sample has a total of 734 observations (70 firms for a 10-year period). Table 5 reports the estimated coefficients.

Table 5: Parameter estimates for profitability of DMEs and MNEs

<i>All five countries</i>	<i>DMEs & MNEs</i>	<i>MNEs</i>	<i>DMEs</i>
Constant	1.464 (6.581)***	1.321 (4.967)***	0.597 (2.846)***
AGE	0.011 (0.95)	0.081 (0.85)	0.044 (1.04)
SECTOR	1.001 (0.99)	0.099 (1.65)*	0.084 (0.822)
LEVERAGE	0.012 (0.55)	0.009 (0.99)	0.008 (0.54)
LIQUID	0.585 (3.01)***	0.422 (4.06)***	0.287 (3.63)***

PROD	-0.144 (-1.66)*	-0.108 (-1.65)*	-0.098 (-1.58)
SIZE	0.011 (1.44) *	0.009 (2.99)***	0.005 (2.07)**
MNE	0.032 (1.69)*	-	-
R2	0.481	0.550	0.674
VIF	-	2.551	1.998
F test	2.645	10.888	10.888
N	3870	3080	790
Spain	DMEs &MNEs	MNEs	DMEs
Constant	0.118 (2.00)**	0.187 (4.72)***	0.207 (4.52)***
AGE	0.027 (1.75)*	0.089 (3.36)***	0.017 (1.17)
SECTOR	1.539 (3.49)***	4.091 (6.213)***	1.032 (1.952)**
LEVERAGE	0.032 (1.22)	0.012 (1.65)*	0.064 (1.58)
LIQUID	0.795 (8.52)***	0.988 (9.66)***	0.687 (8.63)***
PROD	-0.222 (-1.67)*	-0.121 (-1.99)**	-0.211 (-1.62)
SIZE	0.009 (1.77) *	0.013 (2.67)***	0.007 (2.01)**
MNE	0.078 (2.66) ***	-	-
R2	0.481	0.518	0.589
VIF	-	3.551	2.485
F test	4.961	9.965	9.965
N	1887	1524	363
France	DMEs &MNEs	MNEs	DMEs
Constant	0.211 (1.89)*	0.218 (2.56)**	0.080 (1.90)*
AGE	-0.027 (5.75)***	-0.213 (6.44)***	0.147 (1.06)
SECTOR	1.081 (4.48) ***	1.053 (2.995) ***	1.460 (5.904) ***
LEVERAGE	0.022 (0.85)	0.012 (1.95)*	0.024 (1.14)
LIQUID	0.188 (7.24)***	0.245 (4.85)***	0.244 (5.37)***
PROD	-0.004 (-0.061)	0.087 (0.884)	-0.111 (-1.92)*
SIZE	0.009 (1.47)	0.005 (1.31)	0.008 (2.45)**
MNE	- 0.065 (2.14) **	-	-
R2	0.558	0.781	0.564
VIF	-	4.001	4.215
F test	5.144	8.551	8.551

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N	740	544	196
Italy	DMEs & MNEs	MNEs	DMEs
Constant	0.257 (3.600)***	0.107 (2.082)**	0.196 (4.969)***
AGE	0.004 (0.86)	0.028 (1.59)	0.078 (1.98)**
SECTOR	1.002 (8.66)***	5.852 (4.851)***	4.287 (6.851)***
LEVERAGE	0.174 (0.85)	0.137 (1.97)**	0.070 (1.01)
LIQUID	0.278 (4.53)***	0.239 (5.44)***	0.188 (7.24)***
PROD	0.111 (0.55)	-0.253 (-1.66)*	-0.551 (-0.44)
SIZE	0.017 (1.88) *	0.245 (3.99)***	0.125 (3.01)***
MNE	0.082 (2.54) **	-	-
R2	0.594	0.611	0.634
VIF	-	1.988	2.211
F test	3.874	9.541	9.541
N	117	86	31
Greece	DMEs & MNEs	MNEs	DMEs
Constant	0.455 (3.38)***	0.477 (3.01)***	0.555 (3.91)***
AGE	0.058 (1.45)	0.112 (5.38)***	0.085 (1.71)*
SECTOR	0.984 (1.85)*	4.265 (8.652)***	1.865 (1.75)*
LEVERAGE	0.045 (1.01)	0.026 (0.44)	0.044 (1.22)
LIQUID	0.690 (9.72)***	0.692 (9.66)***	0.584 (5.48)***
PROD	-0.275 (-4.07)***	-0.156 (-8.98)***	-0.422 (-1.73)*
SIZE	-0.014 (-1.69)*	-0.015 (-1.62)	-0.017 (-2.12)**
MNE	0.051 (2.32) **	-	-
R2	0.665	0.581	0.612
VIF	-	2.512	2.142
F test	3.014	8.541	8.541
N	671	543	128
Portugal	DMEs & MNEs	MNEs	DMEs
Constant	0.261 (3.897)***	0.116 (2.399)***	0.033 (1.706)*
AGE	0.055 (2.95)***	0.951 (3.98)***	0.685 (1.06)
SECTOR	1.111 (1.85)*	3.085 (5.213)***	1.985 (2.952)***
LEVERAGE	0.016	0.011	0.024

	(1.08)	(1.65)*	(1.81)*
LIQUID	0.641	0.585	0.387
	(4.86)***	(6.42)***	(2.03)**
PROD	-0.003	-0.002	-0.015
	(-1.05)*	(-1.08)	(-1.69)*
SIZE	-0.009	-0.011	-0.004
	(-1.66) *	(-1.67)	(-0.98)
MNE	0.033	-	-
	(1.67)*		
R2	0.451	0.531	0.595
VIF	-	2.658	2.774
F test	2.774	7.632	7.632
N	202	186	16

Estimation Results

H_1 : *The extend of multinationality will have a positive impact on the firms' performance.*

For all five countries, the MNE variable has a positive coefficient (equation 1) and is statistically significant at the 10% level, indicating group heterogeneity and a positive relationship between multinationality and profitability. The analysis also reveals that for each country the MNE variable has a positive coefficient except from France. This provides strong support to our first hypothesis.

H_2 : *The determinants of the performance of MNEs and DMEs differ.*

For all five countries, the analysis found an association between liquidity and profitability for both MNEs and DMEs. The parameter estimates for liquidity explaining profitability are positive and statistically significant for both groups at the 1% level of significance. Additionally, the analysis found an association between size and profitability for both MNEs and DMEs. The parameter estimates for size explaining profitability are positive and statistically significant at the 1% level of significant for the MNEs and of 5% level of significant for the DMEs. A positive relation between the sector and the performance seems to appear for the MNEs at the 10% level of significance.

For Spain, the analysis found an association between liquidity and profitability for both MNEs and DMEs. The parameter estimates for liquidity explaining profitability are positive and statistically significant for both groups at the 1% level of significance. The excess liquidity provides enough flexibility to respond to seasonal expenses and thus a high degree of liquidity is a prerequisite for performance (Demos et al., 2004). Additionally, the analysis found an association between size and profitability for both MNEs and DMEs. The parameter estimates

for size explaining profitability are positive and statistically significant at the 1% level of significance for MNEs and of 5% level of significance for DMEs. The theory is ambiguous on the precise relationship between size and performance, but there is consensus that firm size (SIZE) impacts on firm-level performance. Large firms may generate superior performance as they are more prone to exploit economies of scale and scope and they may organize their activities more efficiently (Majundar, 1997; Barbosa and Louri, 2005). On the other hand, monitoring costs, increased bureaucratisation and extensive hierarchies may prevent large firms from achieving higher performance. Small firms may be able to compensate their cost differentials by adopting more flexible managerial organizations and methods of production (Audretsch and Yamawaki, 1992), responding more rapidly to changes in the competitive environment and obtaining larger than average profits. These arguments may be less appealing in the case of MNEs than in the case of domestically owned firms as MNEs are normally large firms, but are critical when comparing domestic and foreign firms. A positive relation between the sector and the performance seems to appear for the MNEs at the 1% level of significance and at the 5% level of significance for the DMEs. This result confirms that product differentiation is an important determinant of profitability for firms but that marginal increases would increase profitability most in DMEs. This is probably related to the fact that MNEs already have a higher level of product differentiation and advertising than DMEs, which may need to invest further in this area. Also, for MNEs only and not for DMEs, age and leverage are variables that are positively related to the performance, in the 1% level of significance and in 10% level of significance, respectively. Productivity is negatively related to performance at the 5% level of significance.

For France, the analysis found an association between liquidity and profitability for both MNEs and DMEs. The parameter estimates for liquidity explaining profitability are positive and statistically significant for both groups at the 1% level of significant. Additionally, the analysis found an association between size and profitability for only DMEs. The parameter estimates for size explaining profitability are positive and statistically significant at the of 5% level of significant for DMEs. A positive relation between the sector and the performance seems to appear for MNEs and DMEs at the 1% level of significance. Also, for MNEs only and not for DMEs, leverage are positively related to the performance, in the 10% level of significance. The parameter estimates for age in explaining profitability are positive and statistically significant for MNEs at the 1% level, but insignificant for DMEs. Therefore, it is confirmed that experience of local market conditions derive from a long-standing presence as an income-generating asset for MNE subsidiaries that have been acquired in the local hotels. On the other hand, the variable productivity is negative and statistically significant at 10% level of significance only for DMEs. A possible explanation comes from the seasonality of

the sector. A heavy reliance on employment reduces the ability of the firm to allow for seasonal changes to its customer base. Previous studies on the French economy (Dimelis and Louri, 2002) find similar results on labour productivity and its relation with performance. These findings support our second hypothesis that the determinants of performance of MNEs and DMEs differ also for France.

For Italy, the analysis found an association between liquidity and profitability for both MNEs and DMEs. The parameter estimates for liquidity explaining profitability are positive and statistically significant for both groups at the 1% level of significance. Additionally, the analysis found an association between size and profitability for both MNEs and DMEs. The parameter estimates for size explaining profitability are positive and statistically significant at the of 1% level of significance for both MNEs and DMEs. A positive relation between the sector and the performance seems to appear for the MNEs and DMEs at the 1% level of significance. Also, for MNEs only and not for DMEs, leverage are positively related to the performance, in the 5% level of significance. The parameter estimates for age in explaining profitability are positive and statistically significant for MNEs at the 1% level, but insignificant for DMEs. Therefore, it is confirmed that experience of local market conditions derive from a long-standing presence as an income-generating asset for MNE subsidiaries that have been acquired in the local hotels. On the other hand, the variable productivity is negative and statistically significant at 10% level of significance only for MNEs. A possible explanation comes from the seasonality of the sector. A heavy reliance on employment reduces the ability of the firm to allow for seasonal changes to its customer base.

For Greece, the analysis found an association between liquidity and profitability for both MNEs and DMEs. The parameter estimates for liquidity explaining profitability are positive and statistically significant for both groups at the 1% level of significant. Additionally, the analysis found an association between size and profitability for DMEs only. The parameter estimates for size explaining profitability are positive and statistically significant at the of 5% level of significant for DMEs. A positive relation between the sector and the performance seems to appear for the MNEs and DMEs at the 1% level of significance for MNEs and of 10% level of significance for DMEs. The parameter estimates for age in explaining profitability are positive and statistically significant for both MNEs and DMEs at the 1% level and 10% level of significance respectively. On the other hand, the variable productivity is negative and statistically significant at 1% level of significance and at 10% level of significance for MNEs and for DMEs respectively. Previous studies on the Greek economy (Dimelis and Louri, 2002), find similar results on labour productivity and its relation with performance. These

findings support our second hypothesis that the determinants of performance of MNEs and DMEs differ also for Greece.

For Portugal, the analysis found an association between liquidity and profitability for both MNEs and DMEs. The parameter estimates for liquidity explaining profitability are positive and statistically significant for MNEs at the 1% level of significance and for DMEs at the 5% level of significance. Firm size appears to not significantly impact on performance of firms operating in Portugal. Alternatively, we can interpret this result as indicating that the advantages of being large are entirely compensated for by the disadvantages, resulting in a neutral effect on performance. A positive relation between the sector and the performance seems to appear for the MNEs and DMEs at the 1% level of significance. Also, for MNEs and for DMEs, leverage is positively related to the performance, in the 10% level of significance. The parameter estimates for age in explaining profitability are positive and statistically significant for MNEs at the 1% level, but insignificant for DMEs. On the other hand, the variable productivity is negative and statistically significant at 10% level of significance only for DMEs. Finally, age seems to have a positive relation to performance for MNEs only at the 1% level of significance.

As we understand from the above description, MNEs determinants of performance differ to those of DMEs but partially, since a few common characteristics found to both groups.

Table 6: Summary of the most important variables for each country

<i>Spain</i>	<i>DMEs & MNEs</i>	<i>MNEs</i>	<i>DMEs</i>
AGE	0.027 (1.75)*	0.089 (3.36)***	0.017 (1.17)
SECTOR	1.539 (3.49)***	4.091 (6.213)***	1.032 (1.952)**
LIQUID	0.795 (8.52)***	0.988 (9.66)***	0.687 (8.63)***
SIZE	0.009 (1.77) *	0.013 (2.67)***	0.007 (2.01)**
MNE	0.078 (2.66) ***	-	-
<i>France</i>	<i>DMEs & MNEs</i>	<i>MNEs</i>	<i>DMEs</i>
AGE	-0.027 (5.75)***	-0.213 (6.44)***	0.147 (1.06)
SECTOR	1.081 (4.48) ***	1.053 (2.995) ***	1.460 (5.904) ***
LIQUID	0.188 (7.24)***	0.245 (4.85)***	0.244 (5.37)***
<i>Italy</i>	<i>DMEs & MNEs</i>	<i>MNEs</i>	<i>DMEs</i>
SECTOR	1.002 (8.66)***	5.852 (4.851)***	4.287 (6.851)***

LIQUID	0.278 (4.53)***	0.239 (5.44)***	0.188 (7.24)***
SIZE	0.017 (1.88) *	0.245 (3.99)***	0.125 (3.01)***
MNE	0.082 (2.54) **	-	-
<i>Greece</i>	<i>DMEs & MNEs</i>	<i>MNEs</i>	<i>DMEs</i>
AGE	0.058 (1.45)	0.112 (5.38)***	0.085 (1.71)*
SECTOR	0.984 (1.85)*	4.265 (8.652)***	1.865 (1.75)*
LIQUID	0.690 (9.72)***	0.692 (9.66)***	0.584 (5.48)***
PROD	-0.275 (-4.07)***	-0.156 (-8.98)***	-0.422 (-1.73)*
<i>Portugal</i>	<i>DMEs & MNEs</i>	<i>MNEs</i>	<i>DMEs</i>
AGE	0.055 (2.95)***	0.951 (3.98)***	0.685 (1.06)
SECTOR	1.111 (1.85)*	3.085 (5.213)***	1.985 (2.952)***
LIQUID	0.641 (4.86)***	0.585 (6.42)***	0.387 (2.03)**

Conclusions

The scope of this paper is to investigate the profitability differences between hotel MNEs' subsidiaries and domestic firms in Spain, France, Italy, Greece and Portugal. Based on AMADEUS and ORBIS databases for the period 2000-2009 the impact of the independent variables on firm performance are estimated. Firstly, the results from differences in group means for each variable indicate that MNEs are more profitable than DMEs, except for France. Furthermore, the estimation results under the settings of an econometric model indicate that for all five countries, multinationality has a positive and statistically significant sign, indicating that MNEs outperform their domestic competitors. The analysis also reveals that the determinants of performance of MNEs and DMEs partially differ.

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