

**Combining great country spread and limited cultural diversity.  
The world's largest food and drink multinationals**

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### **The world's largest food and drink multinationals**

#### ***Abstract***

After describing, mapping, investigating and analysing the expansion of the world's largest food and beverages multinational enterprises (hereafter, F&B MNEs) over 1996-2000 with a database providing detailed information on the location and activities of more than 8,000 affiliates, we study these MNEs' patterns of expansion across cultural areas of the world. The research provides abundant empirical support to the view that F&B MNEs operate on a worldwide scale; their share of foreign to total affiliates is lower than in the average MNE but they have spread to more countries. Our findings reveal, however, that the great physical dispersion of the F&B MNEs' assets does not necessarily imply cultural dispersion. F&B MNEs combine great country spread with limited cultural diversity and, within the company, some specific lines of business are highly concentrated in culturally close countries. Western F&B MNEs seem more culturally rooted than Asian (Japanese) F&B MNEs, probably owing to differences in the product-mix and the activities developed by the companies. A comparison of 1996 and 2000 data shows that F&B MNEs have tended to expand to increasingly distant cultural areas.

Key words: Multinational enterprises, affiliates, food and drink industry, cultural distance.

## **Introduction**

Understanding the spatial patterns of multinational enterprises (MNEs)<sup>i</sup> has important implication for a variety of academic fields, such as economic geography, international business (IB) studies, international management, sociology and development studies (Cantwell and Sanna-Randaccio 1993; Dunning 1996; Goerzen and Beamish 2003; Ietto-Gillies 2002b; Mucchielli and Mayer 2004; Siddarthan and Lall 1982; Wheeler and Mody 1992), not to mention the practical consequences of such spatial issues for countries wishing to attract foreign direct investment (FDI) or stimulate the internationalisation of domestic companies, and for managers.

Previous empirical analyses, however, have often been insufficient to explain the spatial behaviour of MNEs. One reason, in our view, is that the available analyses of the MNEs' geographic patterns need to be complemented by the study of these companies' expansion across cultural areas of the world (definitions below). MNEs are often attracted by specific countries because common culture and language could facilitate business (Dunning, Fujita and Yakova 2007; Goerzen and Beamish 2003).

Our primary aim here is to contribute to this empirical literature. After describing, mapping, investigating and analysing the expansion of the world's largest food and beverages MNEs (hereafter, F&B MNEs) over 1996-2000 with a database providing detailed information on the location and activities of more than 8,000 affiliates, we study these MNEs' patterns of expansion across cultural areas of the world.

The main contribution of our study is as follows: For the first time we introduce a crucial aspect, namely cultural distance, into the analysis of F&B MNE expansion and explore whether the physical dispersion of their assets implies also dispersion across different cultural areas of the world. At first sight, these companies are highly internationalised and sell their global brands all over the world. We will argue, however, that F&B MNEs combine great country spread with a limited expansion to distant cultural areas.

The rest of the paper is organised as follows: Section 2 presents some characteristics of F&B MNEs. Section 3 sets out the theoretical background which informs our research and section 4 presents the data and methodology. Section 5 the descriptive statistics, maps and main indicators of the companies' geographical

patterns and Section 6 presents results of statistical analyses of cultural patterns in such companies. Finally section 7 concludes.

## **2. Characteristics of F&B MNEs**

About 100 top MNEs (thereafter, the top group) are the major components of an oligopoly in international F&B markets, where they controlled 27% of the world's F&B industry turnover by 2002 (Ayadi, Rastoin and Tozanli 2006); such companies accounted by the mid 1990s for around 50% of the world's patented innovations in the F&B technological field (Alfranica, Rama and von Tunzelmann 2002).

Most of these companies are based in North America (USA and Canada) and Europe, though the nationality-mix of the top group is changing, with the emergence of large F&B MNEs based in Japan, Latin America and elsewhere. A study on 81 continuing companies, i.e. F&B MNEs which were in the top group both in 1996 and 2000, shows the following results (Filippaios and Rama 2008). The share of affiliates pertaining to North American firms fell from 23% to 20 % of the total number of affiliates during 1996-2000, probably as a consequence of capital centralization. While now there are fewer US companies in the top group, their average size, as measured by their global sales, has increased substantially (Tozanli 2005). The share of affiliates owned by firms based in the European Union (EU)-15 also fell (from 38% to 34%) during the period. By contrast, increases are noticeable in the aggregated shares of affiliates pertaining, respectively, to: F&B MNEs based in Japan (from 17 % of total in 1996 to 18% in 2000); in Latin America (from 9 % to 11%); and in other European nations (non-EU-15 countries) (from 7% to 9%).

## **3. Theoretical background**

This section provides the theoretical background for the issues investigated below.

### **3.1. The strategies of F&B MNEs**

F&B MNEs have met constraints and challenges in Western F&B markets, such as: a slowdown in the volume of the demand, changes in lifestyles; the new preferences of some consumers for fresh, organic and artisan products (Goodman

2003; Tozanli 2005); the entry of large tobacco and pharmaceutical firms in F&B markets (Wilkinson 2002); and competition from retailers' cheap own brands.

The response of F&B MNEs has been to spread to a large number of foreign markets (Anastassopoulos and Rama 2005). However, most of these companies follow regional (rather than global) strategies (Filippaios and Rama 2008). They tend to expand to nations located in their own region (e.g. the European Union) or display a bi-regional location strategy (e.g. EU and North America). These results corroborate the thesis that MNEs tend to deploy regional rather than global strategies (Rugman and Girod 2003; Rugman and Verbeke 2004; van Tulder, van den Berghe and Muller 2001). The analysis of the F&B industry, however, also shows that while global strategy at the company level is likely to be "a myth", globalisation at the industry level is not. By the beginning of the century, most regionally focused F&B MNEs located a share, however small, of their affiliates in extra-regional locations; aggregated data show that the total number of F&B affiliates currently located in such sites is substantial (Filippaios and Rama 2008). Critics of the regionalisation theory, however, have suggested the need to investigate also the expansion of MNEs into different cultural areas (Dunning, Fujita and Yakova 2007).

The idea that MNEs are attracted by countries which speak the same language or have a similar culture is not new. The Scandinavian School of IB studies states, moreover, that these companies seem to follow a sequence from their home-base to countries with greater "psychic distance" (Johansson and Vahlne 1977; Shenkar 2001). According to theories of international production, the more dissimilar the home and the host-country are in terms of tastes, values, ethics, etc., the more difficult will be for the MNE to operate and respond to local demand (Goerzen and Beamish 2003). Given the cultural connotations of food consumption and conviviality, cultural distance is a particularly important issue for F&B MNEs, much more so than for MNEs pertaining to other industries. A study including 138 food related questions and 20,000 respondents in 79 European regions found that there is a large degree of overlapping between regions on food culture and language (Askegaard and Madsen, 1995). Owing to cultural differences, similar food-related lifestyles and levels of income in different countries could still lead to very different food-consumption patterns (Fischer 2002; Traill 1997).

These characteristics of food consumption may affect F&B MNEs' expansion patterns. Within Europe, more than half the affiliates' sales of US F&B MNEs take

place in the UK, and to a lesser extent in Germany and The Netherlands, i.e. in countries culturally close to the US (Pick and Worth 2005). Ning and Reed (1995), who investigated location determinants of US FDI in food and related products from 1983 to 1989, found that the US firms tended to invest in either English speaking or European countries because these countries have similar cultural linkages. Conversely, in 1999 the UK had the most foreign affiliate sales in the US F&B industry of the European countries, which could reflect the effects of its cultural similarity with the US (Pick and Worth, 2005). These studies are based exclusively on samples of US F&B MNEs or on samples of US affiliates of foreign F&B MNEs. In our view, they need to be complemented by studies on F&B MNEs from various nationalities and their affiliates in a variety of host-countries, as we do in this paper.

Therefore, we formulate the following hypothesis;

*H1: F&B MNEs are likely to expand within their cultural area or to culturally close areas.*

Cultural areas are defined below.

### 3.2. The importance of home-regions

A review of the literature on the expansion patterns of MNEs suggests the need to consider the home-country of the company as an important variable. According to both the IB literature and the economic geography literature, MNEs based in different countries display different spatial strategies (Dunning 1993; Friedman, Gerlowski and Silberman 1992; O' hUallacháin and Reid 1992). After reviewing the literature on the location of MNEs, Blackbourne (1982) notes that such firms “*retain national identities and attitudes that influence their locational behaviour*”. During 1985-1996, F&B MNEs were no exception in this respect since groups of firms based in different home-regions (e.g. the EU) displayed different geographic strategies (Anastassopoulos and Rama 2005; Tozanli 2005). However, previous studies do not investigate whether companies pertaining to different home-countries (or home-regions) display different patterns of expansion across cultural

areas. For instance, are Japanese firms more prone than other F&B MNEs to expand to distant cultural areas?

Hence, we formulate the following hypothesis:

*H2: F&B MNEs based in different home-regions display different patterns of expansion across cultural areas.*

#### **4. Data and methodology**

Data indicating value details of MNEs' sales by foreign country and line of business are scarce and available, if any, for limited numbers of companies, activities and host-countries (Ietto-Gillies 2002a). For these reasons, rather than on value details of the companies our analysis is based on the numbers of their respective affiliates, one of the proxies proposed by the OECD (2004) to construct globalisation indicators related to MNEs.

The target population is the top group (100 largest F&B MNEs in the world). The top group does not include exactly the same companies in 1996 and 2000 because, during this period, some firms dropped out and "new" firms entered it; therefore, we selected for analysis the 81 F&B MNEs that had continuous presence in the top group for both years. The selected firms are active in a variety of industries, such as meat processing, dairy products, canned specialties, spirits, etc.; whilst all are food or beverage processors, a number of them are also engaged in agribusiness and non-food concerns.

The data were collected by AGRODATA, a database produced by the Institut Agronomique Méditerranéen de Montpellier (France)<sup>ii</sup>. This database is the most comprehensive information available on the activities and location of the affiliates of the world's largest F&B MNEs, though it has been little exploited in studies published in English<sup>iii</sup>. F&B MNEs included in the database should have at least one food-processing plant outside the home-country and agro-food sales amounting to a minimum of US\$ 1 bn. per year (Rastoin et al. 1998).

As stated, our statistical unit is the affiliate<sup>iv</sup> rather than the enterprise. Both for 1996 and 2000, we analysed information on approximately 8,000 affiliates<sup>v</sup>

provided by AGRODATA (Rastoin et al. 1998). The database includes information on: name of the affiliate; name of the parent; home-country of the company; and host-country, host-region (e.g. the European Union) and sub sector of activity (e.g. dairy products) of the affiliate.

AGRODATA classifies the affiliates by their main economic activities and, hence, by their UN-International Standard Industrial Classification (ISIC) code. Following a previous study (Rama 1998), we also group such economic activities into six main categories: within-core activities (WHITHINCORE), agriculture (AGRIC), retailing (RETAIL), technology (TECHN), global trade (GLOBAL) and other activities (OTHER). Table 1 displays the description of the categories. In our sample, affiliates specializing in technology are laboratories enjoying the status of independent establishments (as opposed to laboratories attached to production plants); this sort of laboratories often manage and direct all the R&D activities of a company (Filippaios et al. 2009 forthcoming; G.E.S.T. 1986).

Geographic regions are: Africa, Asia, the EU-15, Latin America (Mexico included), North America (US and Canada) and Rest of Europe.

Table 1. Description of categories

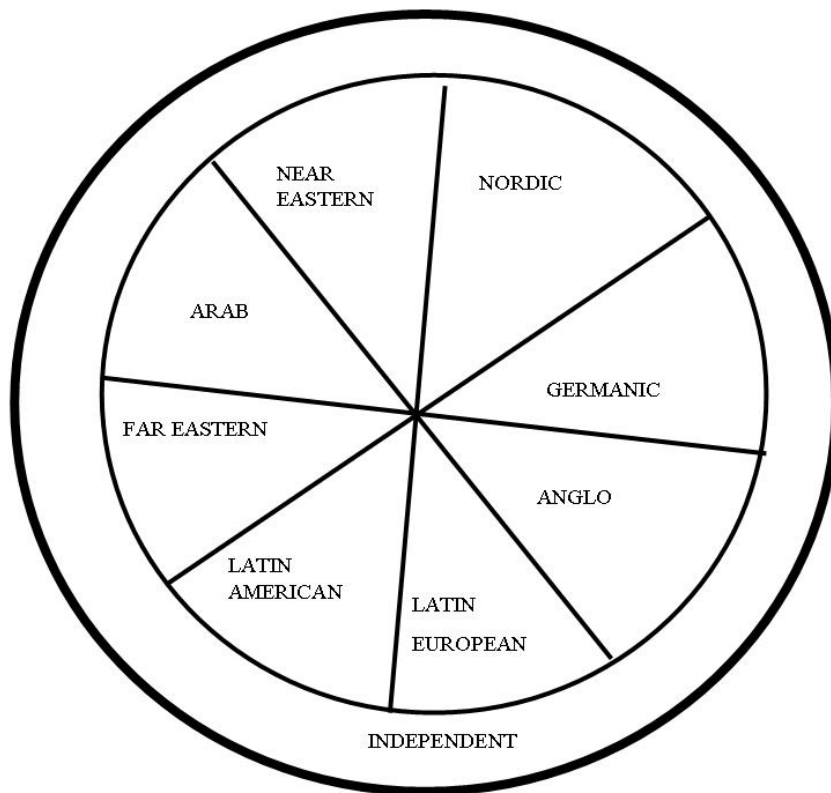
<b>AGRIC</b>	Indicates involvement of the affiliate in: agriculture, horticulture, animal husbandry, viticulture, pisciculture, aviculture, silviculture, fisheries and production of seeds. UN-SIC Codes: 1110, 1210, 1300, 1301, 1302
<b>GLOBAL</b>	Indicates involvement of the affiliate in international commercial activities UN-SIC Code: 611080
<b>OTHER</b>	Indicates involvement of the affiliate in non-food industries and services (excluding those classified into RETAIL and GLOBAL)
<b>RETAIL</b>	Indicates involvement of the affiliate in: retailing, supermarkets, hypermarkets, restaurants and pubs. UN-SIC Codes: 6210, 6220, 6300, 6310
<b>TECHN</b>	Indicates involvement of the affiliate in: technological services to other companies, biotechnology, veterinarian services to farms, production of microbiological products and research centres with the status of independent affiliates. UN-SIC Codes: 311280, 832020, 832021, 832030, 9320, 9330
<b>WITHINCORE</b>	Indicates involvement of the affiliate in food and beverages manufacturing

To measure cultural distance between the home and the host-country of the company we followed closely the analyses by Ronen and Shenkar (1985) and Triandis (1994). They cluster countries based on their relative similarities along four different dimensions, i.e. language, geography, wealth and religion<sup>vi</sup>. This method enabled us to measure, at the affiliate level, the cultural distance between the home-country of the parent and the host country where each affiliate locates.

We clustered the countries according to Figure 1, which encompasses nine country clusters. For instance, the Anglo cluster includes Australia, Canada, Ireland, New Zealand, South Africa and the United States. Figure 1 should be interpreted as follows. For instance, countries belonging to the Anglo cluster of countries take value 1, countries belonging to the Germanic or Latin European clusters take value 2 and so on so forth. Between the Anglo cluster, on the one hand, and the Germanic or the Latin European clusters, on the other, cultural distance is only 1. This indicator of cultural distance takes value 0, the minimum value, when the mother and the affiliate belong to the same country cluster. This is the case, for instance, of the Spanish affiliates of Danone, a French F&B MNE; France and Spain, respectively the home-country and the host-country of the company, belong both to the Latin European cluster. Conversely, the indicator takes the maximum value 5, when the mother belongs to a cluster within the core circle and the affiliate in the “independent” category of countries, i.e. the countries not located in any of the other clusters.

Cultural distance may differ for different types of foreign affiliates (e.g. retailing affiliates and agricultural affiliates). As our next step, we analysed the average cultural distance for foreign affiliates in different lines of business or activities, and we calculated AGRICULT, GLOBALCULT, OTHERCULT, RETAILCULT, TECHNCULT and WITHINCULT, a set of variables which measure average cultural distance for foreign affiliates operating in the above mentioned six activities, and TCULT, a variable measuring total cultural distance for all the foreign affiliates of the company (See Table 2 for definitions of the variables).

**Figure 1. Country clusters according to cultural similarities**



Source: Adapted from Ronen and Shenkar (1985).

Table 2 Variable description

<b>Variable Name</b>	<b>Variable Description</b>
SIZE <sub>i,t</sub>	Number of Employees
PERF <sub>i,t</sub>	Net Income / Total Sales (Return on Sales, ROS)
FOODSA <sub>1,t</sub>	Food Sales / Total Sales
FDIV <sub>i,t</sub>	Foreign Affiliates / Total Number of Affiliates
FCOU <sub>i,t</sub>	Number of foreign countries in which the firm is present
AGRIC (T) <sub>i,t</sub>	Percentage of total affiliates operating in agricultural activities/Total no. of affiliates
GLOBAL (T) <sub>i,t</sub>	Percentage of total affiliates operating in global activities/Total no. of affiliates
OTHER (T) <sub>i,t</sub>	Percentage of total affiliates operating in non-food related activities/Total no. of affiliates
RETAIL (T) <sub>i,t</sub>	Percentage of total affiliates operating in retail activities/Total no. of affiliates
TECHN (T) <sub>i,t</sub>	Percentage of total affiliates operating in Research & Development related activities/Total no. of affiliates
WITHINCORE (T) <sub>i,t</sub>	Percentage of total affiliates operating in food & drink related activities/Total no. of affiliates
AGRICCULT <sub>i,t</sub>	Average Cultural Distance for foreign affiliates in agricultural activities
GLOBALCULT <sub>i,t</sub>	Average Cultural Distance for foreign affiliates in global activities
OTHERCULT <sub>i,t</sub>	Average Cultural Distance for foreign affiliates in non-food related activities
RETAILCULT <sub>i,t</sub>	Average Cultural Distance for foreign affiliates in retail activities
TECHCULT <sub>i,t</sub>	Average Cultural Distance for foreign affiliates in Research & Development related activities
WITHINCULT <sub>i,t</sub>	Average Cultural Distance for foreign affiliates in food & drink related activities
TCULT <sub>i,t</sub>	Average Cultural Distance for all foreign affiliates

## 5. Descriptive statistics, maps and main indicators

In this section we describe our sample, map the geographic distribution of the affiliates, analyse the main indicators of their internationalization and country spread, and measure the general level of cultural distance between F&B MNEs and their host-countries in 1996 and 2000.

### 5.1. Characteristics of the sample and functional structure of the companies

Table 3 displays some general characteristics of the sampled companies. As a preliminary reading of the descriptive statistics shows, the firms display substantial diversity regarding their size (although all of them are very large), performance, degree of product diversification, etc. (for definitions of these variables, see Table 2)

Table 3 also provides some descriptive statistics on the structure of the companies, by economic activity (see Functional Structure). For instance, AGRIC (T) indicates the share of affiliates (domestic and foreign) that specialize in agricultural activities over the total number of affiliates (domestic and foreign) in 1996 or 2000 (see definitions of variables on Table 2).

The functional structure of the companies remained quite similar over 1996-2000, a result which contests some results of previous research based on study-cases. The data do not support, for instance, the idea of a generalized shift of F&B MNEs to “*producing agroindustrial inputs, components of food-chains, or specialty crops*” (Raynolds et al. 1993, p. 1105); nor the opinion that these companies have rushed to sell -off their agricultural activities to pharmaceutical or chemical companies (Tozanli 2005). As shown by Table 3, the share of the affiliates engaged in agricultural activities, AGRIC (T) rose substantially during the period, while that of the affiliates engaged in technological activities, TECHN (T), remained relatively stable. Although some individual F&B MNEs could have shifted from production to business in merely technology or management (Oman et al. 1989; Pritchard 2000), the share of affiliates active in core activities, WHITHINCORE (T), also remained quite stable. The share of affiliates engaged in non-core activities, OTHER (T), grew slightly during the period, a result that provides partial support to the hypothesis that the

world's most important food companies are “*increasingly intersectoral*” (Constance and Heffernan 1993 , p. 20).

These results also enable us to explore the types of FDI prevalent in this global industry. According to the theory, the types of FDI involved in the foreign activities of MNEs could influence location patterns (below, we will come back to this question). The theory distinguishes between FDI of a horizontal type, i.e. FDI designed to serve local markets, and FDI of a vertical type, i.e. FDI meant to obtaining inputs and raw materials (Ietto-Gillies 2002b; Shatz and Venables 2000). Among F&B MNEs, foreign agricultural affiliates, which probably aim at obtaining inputs and raw materials, accounted for only 3.48% (sdv 7.31%) of the total number of affiliates, while foreign affiliates involved in manufacturing of F&B amounted to 58.05 % (sdv 25.22 %) in 2000. These percentages suggest that FDI in this industry is predominantly of a horizontal type, although a reduced part of it could be of a vertical type. We may reasonably infer that these firms are more dependent on consumer's patterns of consumption around the world than are MNEs focusing on vertical FDI.

## 5.2. Mapping foreign affiliates

We start by mapping the distribution of F&B foreign affiliates around the world in 2000 (Figures 2). The most important recipient areas and countries were the U.S., the European Union (EU-15 at the time), Australia, Brazil, Canada, China, Japan and South Africa; the rest of the areas, notably most African countries, received only small shares of the total numbers of foreign F&B affiliates. In short, the most relevant recipients of foreign affiliates were industrialized countries, especially the U.S., and large emerging economies.

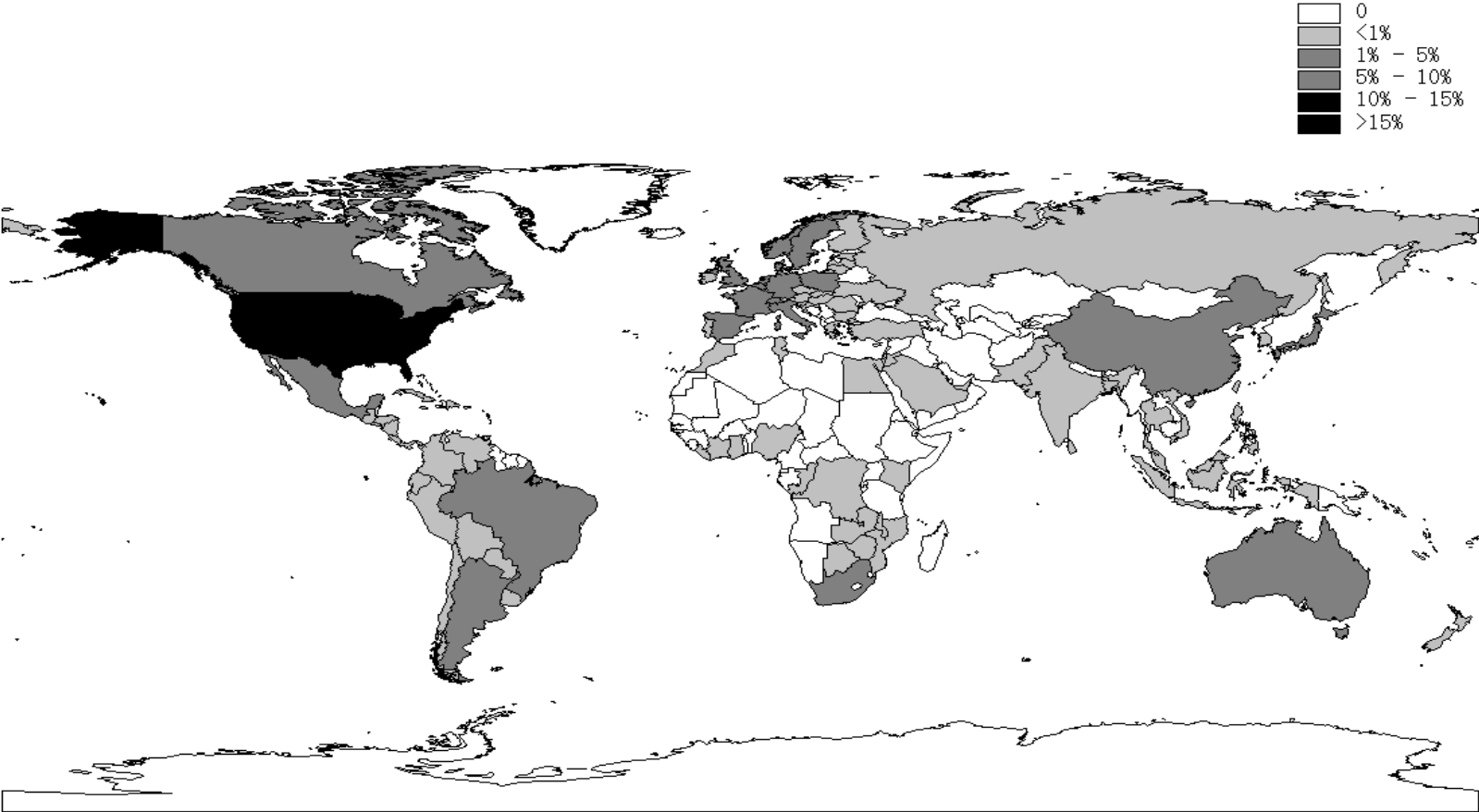
Summarising, we can argue that F&B MNEs are attracted by affluent and/or large markets for foodstuffs and countries rich in natural resources rather than by countries providing cheap labour.

**Table 3. Basic sample statistics**

	<b>1996</b>					<b>2000</b>				
	<b>Obs</b>	<b>Mean</b>	<b>St. Dev.</b>	<b>Min</b>	<b>Max</b>	<b>Obs</b>	<b>Mean</b>	<b>St. Dev.</b>	<b>Min</b>	<b>Max</b>
<b>General characteristics</b>										
<b>SIZE</b>	81	41570	72074	1815	486000	81	37730	50876	1064	295000
<b>FOODSA</b>	81	89.86%	20.52%	11.52%	100.00%	81	86.70%	22.43%	11.60%	100.00%
<b>PERF</b>	81	3.93%	3.83%	-1.78%	18.83%	81	5.60%	9.92%	-4.22%	19.10%
<b>Internationalization Indicators</b>										
<b>FDIV</b>	81	54.22%	24.46%	3.70%	97.10%	81	56.38%	26.82%	5.56%	98.30%
<b>FCOU</b>	81	20	18	2	99	81	22	20	2	93
<b>Functional Structure</b>										
<b>AGRIC(T)</b>	81	3.67%	10.04%	0.00%	60.00%	81	4.20%	11.29%	0.00%	60.00%
<b>GLOBAL(T)</b>	81	4.30%	8.88%	0.00%	42.86%	81	5.09%	10.34%	0.00%	42.86%
<b>OTHER(T)</b>	81	16.22%	19.62%	0.00%	85.87%	81	17.81%	24.08%	0.00%	87.83%
<b>RETAIL(T)</b>	81	9.79%	15.03%	0.00%	57.89%	81	8.24%	16.90%	0.00%	100.00%
<b>TECH(T)</b>	81	1.12%	3.33%	0.00%	16.67%	81	1.05%	3.03%	0.00%	14.81%
<b>WITHIN(T)</b>	81	64.90%	26.04%	1.96%	100.00%	81	63.61%	30.15%	0.00%	100.00%
<b>Cultural Distance by type of Activity</b>										
<b>AGRICCULT</b>	81	0.37	0.89	0.00	3.57	81	0.39	0.93	0.00	3.57
<b>GLOBALCULT</b>	81	0.66	1.20	0.00	5.00	81	0.67	1.22	0.00	5.00
<b>OTHERCULT</b>	81	0.58	0.83	0.00	3.33	81	0.66	1.00	0.00	5.00
<b>RETAILCULT</b>	81	0.65	0.96	0.00	5.00	81	0.54	0.83	0.00	3.50
<b>TECHCULT</b>	81	0.19	0.63	0.00	3.80	81	0.27	0.85	0.00	5.00
<b>WITHINCULT</b>	81	1.06	0.78	0.00	4.20	81	1.06	0.68	0.00	3.20
<b>TCULT</b>	81	0.98	0.72	0.00	3.57	81	1.00	0.65	0.00	3.48

Source: Authors' calculations based on AGRODATA information

Figure 2. Location of Foreign Affiliates, 2000



Next, we calculate two indicators of internationalisation in F&B MNEs (Table 3). As mentioned before, Table 2 contains the variable descriptions for reference.

FDIV (see International Indicators) measures the level of internationalisation of the firm, i.e. its foreign affiliates as a percentage of its total number of affiliates (domestic and foreign). This variable signals the relative weight of foreign *versus* domestic facilities within the multinational network and measures the geographic diversification of the company. The foreign affiliates of the sampled F&B companies, which had amounted to 53% of the total number of affiliates (domestic and foreign) in 1990-96 (Anastassopoulos and Rama 2005), grew to more than 55% in our 1996-2000 sample. Our results contest, however, the traditional view that F&B MNEs are more internationalised than other MNEs since the average level of internationalisation in manufacturing and mining was 58.4% in 1997 (Ietto-Gillies 2002b).

We also calculate FCOU, a variable measuring the country spread of the F&B multinational, i.e. the number of foreign countries where the company operates; it indicates the geographic dispersion of the MNE's network. F&B MNEs, which had operated, on average, in only 13 foreign countries in 1990-1996 (Anastassopoulos and Rama 2005), spread to 20 foreign countries in 1996 and to 22 in 2000. To put these figures into a relevant perspective, other studies observe that the average MNE spread to only 13.6 countries in 2000 (Ietto-Gillies 2002b). In F&B MNEs, country spread was an effective means to promote the quick growth of sales over 1985-1996 (Anastassopoulos and Rama 2005); this fact could contribute to explaining the upward trend of the variable in the current sample.

The results seem to support previous views that F&B MNEs use a multidomestic strategy to serve many different national markets (Cantwell and Sanna-Randaccio 1993; Porter 1986; Rama 1992; Traill 1997).

In short, F&B MNEs are highly internationalised although they maintain a relatively stable foreign to total affiliates rate. This strategy has probably a Penrosian (Penrose 1959) explanation: F&B MNEs may attempt to avoid the high management costs often involved in complex worldwide networks.

### 5.3. Cultural distance and foreign affiliates

The next set of variables in Table 3 measures, at the affiliate level, the cultural distance between the home-country and the host country (see Cultural Distance). Again, definitions of variables are in Table 2.

The most important conclusion of the analysis is that F&B MNEs tend to operate in foreign countries culturally close to their respective own home-countries. When investing abroad, the average cultural distance met by an F&B MNE is approximately 1, with a large variation among companies (see TCULT in Table 3).

The F&B MNE is likely to spread its foreign manufacturing and international trade facilities (see WHITINCULT, OTHERCULT and GLOBALCULT in Table 3) across cultural clusters, while concentrating other business in the clusters more similar to its own home-country. For its foreign R&D activities, for instance, these companies choose countries culturally close to their home-country (see TECHCULT in Table 3).

## **6. Contingency analyses of affiliates characteristics**

To further explore the top group's characteristics, in this section, we use contingency analysis to classify the affiliates' features along different dimensions.

Here, we investigate the expansion of F&B MNEs across cultural areas; the results of the analysis are displayed, at the affiliate level, in Table 4. Within each home-region (e.g. EU-15), each F&B MNE was classified, following Ronen and Shenkar (1985), by the cultural cluster of its home-country. For instance, Italian F&B MNEs were classified into the Latin European cluster and British F&B MNEs into the Anglo cluster; both are based, though, in the EU-15 home-region.

In 1996, the majority of F&B foreign affiliates were established in countries belonging in the same cultural group with the home-country, though this broad picture concealed some differences.

By the end of the period, the F&B MNE was less prone than earlier to concentrate in countries culturally similar to its own home-base and already divided almost equally its affiliates between the same cultural cluster than the home-country and other clusters. In doing so, the F&B MNEs showed a gradual approach. By 2000, the percentage of foreign affiliates located in countries displaying medium-cultural distance (1, 2 or 3) increased, but that of those placed in foreign countries displaying high cultural distance (4 or 5) remained almost unchanged.

**Table 4. Distribution of foreign affiliates by home region and cultural distance**

	Cultural Distance						
Home-region 1996	0(Low Cultural Distance)	1	2	3	4	5(High Cultural Distance)	Grand Total
Africa	0.74%	0.06%	0.00%	0.21%	0.00%	0.00%	<b>1.01%</b>
Asia	7.28%	0.00%	2.48%	0.33%	0.93%	2.59%	<b>13.62%</b>
European Union	20.55%	9.05%	3.48%	2.10%	0.96%	0.35%	<b>36.49%</b>
Latin America	0.52%	0.68%	0.76%	0.19%	0.00%	0.00%	<b>2.15%</b>
North America	22.88%	8.04%	4.38%	3.79%	0.13%	1.17%	<b>40.38%</b>
Rest of Europe	2.40%	2.23%	1.26%	0.14%	0.32%	0.00%	<b>6.35%</b>
<b>Grand Total</b>	<b>54.38%</b>	<b>20.06%</b>	<b>12.35%</b>	<b>6.76%</b>	<b>2.34%</b>	<b>4.11%</b>	<b>100.00%</b>
<b>X<sup>2</sup> = 1216.57 ***</b>							
	Cultural Distance						
Home-region 2000	0(Low Cultural Distance)	1	2	3	4	5(High Cultural Distance)	Grand Total
Africa	0.66%	0.06%	0.00%	0.18%	0.00%	0.00%	<b>0.89%</b>
Asia	6.89%	0.00%	1.87%	0.27%	0.68%	2.06%	<b>11.77%</b>
European Union	13.63%	9.04%	3.42%	1.79%	1.10%	0.24%	<b>29.21%</b>
Latin America	0.46%	0.59%	0.67%	0.18%	0.00%	0.00%	<b>1.90%</b>
North America	22.95%	8.71%	6.52%	5.45%	0.31%	1.70%	<b>45.63%</b>
Rest of Europe	5.09%	3.25%	1.70%	0.20%	0.35%	0.00%	<b>10.59%</b>
<b>Grand Total</b>	<b>49.68%</b>	<b>21.64%</b>	<b>14.17%</b>	<b>8.06%</b>	<b>2.44%</b>	<b>4.00%</b>	<b>100.00%</b>
<b>X<sup>2</sup> = 1167.87 ***</b>							

Source: Authors' calculations on AGRODATA information.

Note

\*\*\* p < 0.01. For statistical accuracy, the Chi-square was calculated on the numbers of affiliates, not on the percentages.

This result confirms *H1* (F&B MNEs are likely to expand within their cultural area or to culturally close areas).

Faced with the challenge of expanding to cultural environments new to them, F&B MNEs based in different home-regions follow different strategies. The null hypothesis of no association between the variables could be rejected; the home-region of a company and the cultural-based patterns of location followed by its foreign affiliates are statistically associated both in 1996 and 2000 (see Chi-square statistics in Table 4).

This result implies that F&B MNEs' patterns of expansion across cultural areas of the world differ among companies based in different home-regions<sup>7</sup>. EU-15 and North American F&B MNEs tended to keep most of their respective foreign affiliates still concentrated in countries culturally similar to their respective home-countries, while Asian F&B MNEs (all Japanese companies in our sample) trailed a more dispersed strategy investing significantly in countries with either average or high cultural distance. Given their product-mix, Japanese F&B MNEs depend probably less than their Western counterparts on specific local tastes and their products often need adaption to foreign gastronomic cultures. Actually, some of their most important products do not need to be adapted to specific host-countries: fish or sea food, which these MNEs export from their foreign affiliates back to Japan (Tozanli 2005); high-tech inputs for the F&B industry (e.g. biotech products); and Japanese specialties (e.g. sauces), increasingly popular in Western countries (Alfranca, Rama and von Tunzelmann 2004; G.E.S.T. 1986). The nature of their product-mix could make Japanese F&B MNEs less rooted than Western firms in specific cultural environments.

These results confirm *H2* (F&B MNEs based in different home-regions display different patterns of expansion across cultural areas).

## **7. Conclusions**

We have attempted to understand the expansion of the world's largest F&B MNEs across geographic regions and cultural areas. We have mapped their geographic distribution and analysed data of 81 major F&B MNEs in 1996 and 2000. The

research has been based on a database comprising more than 8,000 affiliates, based on which we developed six different kinds of business lines, ranging from agriculture to retailing.

Although now there are many new players in the international scene, North America and the EU-15 remain both the main *sources* and *recipient* areas for MNEs in this industry, a result confirming previous research on this industry based on FDI flows (Fischer 2002).

F&B MNEs are primarily attracted by affluent and/or large markets. Despite the fact that the most important home-countries display high wages, a systematic search for low labour costs on the part of these MNEs is not apparent. Our results seem to contradict the traditional view that FDI would flow from high-labour cost to low labour-cost countries in the pursuit of cost minimization (Barkley 2005; Calvet 1981; Teece 1985). By contrast, they support the new theories of trade and location, which predict that horizontal FDI, characterizing this industry, would rather locate in developed countries (Ietto-Gillies 2005; Shatz and Venables 2000).

The research provides abundant empirical support to the view that F&B MNEs operate on a worldwide scale; their share of foreign to total affiliates is lower than in the average MNE but they have spread to more countries. The latter proposition seems to reinforce the hypothesis that F&B MNEs deploy a multi-domestic strategy (Cantwell and Sanna-Randaccio 1993; Porter 1986; Rama 1992; Traill 1997), probably due to the need to cater to very different types of national food tastes. Comparing our results with those of a previous study (Anastassopoulos and Rama 2005), we note that F&B MNEs have kept a similar proportion of domestic to total affiliates from 1985 to 2000.

Our findings reveal that the great physical dispersion of the F&B MNEs' assets does not necessarily imply cultural dispersion. These MNEs tend to combine substantial country spread with limited cultural diversity. This finding is in line with Gowtzen and Beamish's (2003) research, which established that MNEs of all sectors performed better when combining dispersed assets and relatively familiar environments. Western F&B MNEs seem more culturally rooted than Asian (Japanese) F&B MNEs, probably owing to differences in the product-mix and the activities developed by the companies.

Our result that F&B MNEs propend to disseminate in the world according to cultural patterns, corroborates and extends to F&B MNEs of other nationalities, as

previous research based on the analysis of US outward FDI flows in food and related products has showed (Ning and Reed 1995; Pick and Worth 2005).

A comparison of 1996 and 2000 data shows that F&B MNEs have tended to expand to increasingly distant cultural areas. When choosing new foreign locations, this result suggests, F&B MNEs take a gradual approach, starting by countries culturally close to their own home-country. This interpretation would support the Scandinavian School of IB studies stating that MNEs seem to follow a sequence from their home-base to countries with greater “psychic distance” (Johansson and Vahlne 1977; Shenkar 2001); it also points to the importance of learning processes in the internationalisation of firms, as claimed by other authors in the IB literature stream (Casson 1994). Also, the F&B MNEs expansion to previously unfamiliar environments could have been facilitated by recent trends towards the homogenization of food consumption patterns (see, for instance, Connor 1994; Gil, Gracia and Pérez y Pérez 1995; Traill 1997).

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<sup>i</sup> “A multinational enterprise is a firm that controls and manages production establishments located in at least two countries” Teece, D. (1985). 'Multinational enterprise, internal governance and industrial organization'. *The American Economic Review* (75),233-238.

<sup>ii</sup> The sources for AGRODATA are, in turn, Moody’s Industrial Manual, the Fortune Directory of the 500 largest US and the 500 largest non-US corporations, the “Dossier 5.000” of the largest European companies published by *Le Nouvel Economiste*, Dun & Bradstreet, and the annual reports of the enterprises, among others.

<sup>iii</sup> In English, Tozanli (2005) provide tables containing some of these data. Information on the IAMM and AGRODATA (in French) is available in the following web page: <http://www.iamm.fr/default.htm>.

<sup>iv</sup> Here, the affiliate responds to the first level of production identified by the OECD (2004, p. 21) in MNEs; it is a part of an enterprise “situated in a simple location and has the most homogeneous production, or whose principal productive activity accounts for most of the value-added”.

<sup>v</sup> Affiliates are establishments where the parent holds at least 5% of the equity share capital. In our sample, the parent controls, on average, 70% or more of share capital in 90% of the affiliates.

<sup>vi</sup> For criticism on the cultural distance construct and its measure, see Shenkar, O. (2001). 'Cultural distance revisited: towards a more rigorous conceptualization and measurement of cultural differences'. *Journal of International Business Studies* (32),519-535.

<sup>7</sup> For both years, the Chi-Square statistic also confirms the existence of a strong statistical relationship between the home-region and the host-region allocation of subsidiaries (Chi square = 573.62 and 507.57, respectively,  $p < 0.01$ ); the null hypothesis, thus, that the geographic location of an affiliate is independent from the home-region of the parent was rejected. As these results are similar to those of a previous statistical analysis for a sample of F&B MNEs Anastassopoulos, G., and R. Rama. (2005). 'The Performance of Multinational Agribusinesses: Effects of Product and Geographical Diversification'. Pp. 73-113 in, R. Rama (ed). *Multinational agribusinesses*. New York and London: Haworth Press Inc., we conclude that, over 1985-2000, the nationality of the parent was consistently associated with a specific pattern of locations; companies based in different home-regions did not converge in this respect.