Determinants of commercial performance in the sector of selective distribution of cosmetics worldwide: impact of the nature and age of the retail brand, and of the number of stores

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Abstract

The academic literature has focused more on the competitive performance of retail brands than on their commercial performance per se and its antecedents. Our research study examines the factors that impact commercial performance by addressing two questions: does the commercial performance of a cosmetic retail brand depend on the country in which it operates ("where I am?") or does it depend on the nature of the circuit ("who I am?"). Finally, our explanatory model of the penetration and market share comprises four factors: the type of store, the geographical area, the percentage of stores owned by the brand, and the time elapsed since the launch of the brand. The choice of these factors is relevant as evidenced by the strong predictive validity and explanatory power of the mode. The model reveals a significant effect of the factors and their interactions.

Keywords: commercial performance; market share; penetration; retailing; international marketing

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While the function of distribution is mainly to market products to the greatest number of people, academic research has paradoxically paid little attention to the commercial performance of retail brands, and has focused mainly on their competitive (Vyt, 2006) or financial performance (Shi, Lim, Weitz et al., 2018; Pekovic and Rolland, 2012). As Filser, Des Garets and Paché (2012) have rightly pointed out "a buyer's relationship with a retail outlet has long remained a minor issue for both practitioners and marketing researchers". Our study focuses on retail brands' commercial performance as measured via the market share. We choose here to examine the selective distribution of cosmetic products, because of the heterogeneity of distribution channels, of the brands sold, and of the universal nature of this market.

Our research goal is to investigate the factors that are likely to influence commercial performance in the context of an internationalization strategy. We seek to determine whether international commercial success in the cosmetics sector solely depends on the nature of the retail brand ("who I am") or on the country in which it is established ("where I am"). In other words, is there a type of channel that performs better, regardless of the country of location, or, on the contrary, is success contingent upon the country of location, the type of store, and of course, upon their interaction.

To answer this question, we have to control for - at least - the following factors: the percentage of stores owned by each brand – which reflects a retail brand's market coverage - and how long the brand has been in the country; indeed, this factor may explain why a brand has more notoriety, a better image, or a greater market share, and therefore is better established than other brands (Urban et al, 1986; Fershtman et al, 1990). Of course, the factors that we manipulate or control for are not exclusive of other factors that may influence commercial performance, but in this as yet little explored field, we think it appropriate to take one step at a time. Our results will certainly elicit comments, which will motivate further studies, and this is how research progresses.

Our choice to focus on cosmetic products (perfume, facial care and make-up products) must also be explained. Cosmetics can be classified in a kind of intermediate category between that of luxury goods and that of consumer goods; they are neither convenience goods nor shopping goods, and neither are they really specialty or luxury goods. They are in fact part of all three product categories. By the same token, it is difficult to offer this category of products in a single type of store, as Bucklin (1967) suggests in his now classic typology. Indeed, cosmetic products are sold in single-brand or multi-brand, specialist or generalist stores, and the range of distribution channels varies greatly from one geographic area to another. From this point of view and given the specificity of cosmetic products, selecting the two dimensions - location and the type of stores - as factors explaining commercial performance seemed to be the obvious choice.

As we know, abundant research has been conducted on the role of location ever since the publication of Huff's seminal work (1964), which established a link between attractiveness and geographical proximity. However, we have chosen to base our study on the concept of internationalization rather than on that of location. As Boryana et al. (2018) have clearly shown, internationalization poses a risk for commercial performance in that it exposes a brand from a given country to other cultures, different market structures, consumption behaviours, etc. Success or failure, therefore, depends on a particularly large number of factors. Consequently, underestimating the implications of internationalization can have serious consequences and have long term undermining effects on retail brands that have not prepared sufficiently for it (Bianchi, 2011; Dawson, 2007; Leonidas et al., 2018).

The performance of each type of store is indicative of the relative importance, in commercial performance, of the attractiveness of a product and its brand, on the one hand, and that of the store brand on the other (Howard and Sheth, 1969; Howard, 1989; Lambrey, 1995), particularly in cases where the product is sold under the store brand (specialized stores selling their own product brand) or in the case of selective retail brands that have chosen to distribute exclusive brands (perfume stores / cosmetics retail chains). In the world of cosmetics, the choice to sell only certain product brands is particularly significant, and we know that this choice and commercial performance are linked (Porter, 1980). And, in this precise configuration, the measurement of commercial performance is problematic (Vyt, 2006), and raises the question of the choice of resources that must be created in priority, or even leveraged (Swoboda et al., 2014).

Finally, the number of years a retail brand has been on the market cannot be ignored as it is likely to influence the brand's reputation and image, and, from a more strategic point of view, its ability to maintain its competitive advantage in the long term. Indeed, the number of years a brand has been in business is taken into account when one examines a brand's typicality (Amine, Pontier, 1999; Cliquet, Fady and Basset, 2006), because it is one of the three factors, along with external appearance and the internal physical environment, of typicality. The link between the number of years of existence and the commercial performance of a business is now well demonstrated (Coad, 2018; Coad et al., 2018). In particular, being perceived as a reference brand does have consequences on commercial performance, but how much so? Moreover, it can be assumed that the degree of preference for a store (Malhotra, 1983) is also influenced by the number of years it has been on the market, for example via the reputation it has built for itself, or the market share it has achieved (Chze Lin Tang, Lin Boon Tan, 2003).

The brand database we have used aggregates the information collected through over 28,000 questionnaires administered online to consumers who buy their cosmetics from selective stores, in 14 countries. The variable to be explained is the market share in sales volume for each brand in each country. Our first factor is the type of store (store brands) and has four modalities: department stores (multi-brand generalists), drugstores (multi-brand generalists), own-brand stores (single-brand specialists), and cosmetics stores (multi-brand specialists). In the multi-brand generalist category, we distinguish department stores from drugstores, because of their distinct positioning and offering in the market. Our second factor is geographic location and has six modalities, grouping countries together according to their geographic, sociological and cultural proximity: Western Europe (France, Spain, Italy, Portugal), Eastern Europe (Poland, Czech Republic, Romania), Southeast Europe (Greece,

Turkey), North America (Canada), Central and South America (Brazil, Mexico), the Middle East (Saudi Arabia, United Arab Emirates). Two other factors are introduced into the analysis, because of their likely impact on market share: the percentage of stores owned by a brand modelled as the total number of stores owned by the brand divided by the total number of stores per country, all brands included; the number of years of existence calculated from the date of its creation or first launch in each country. Finally, the analysis of variance-covariance focuses on four factors: the type of store, the geographic location, the proportion of stores owned by a retail brand and the number of years of existence on the market. The brands selected in each country account for at least 90% of the market shares in the selective cosmetics retail trade, except in Brazil (65%), where the door-to-door cosmetics sales segment is significant but is not considered in this study as it is considered non-selective. Two factors are measured with continuous variables (proportion of stores, number of years of existence), and two are measured with nominal variables (type of store, geographic location): the analysis of covariance (ANCOVA), a hybrid between linear regression and ANOVA, is the most suitable statistical treatment and the one we have used. We have 143 observations on 88 different retail brands: Thus, some retail brands are evaluated in several countries because they are present internationally. However, performing a repeated-measures ANCOVA is not justified insofar as the samples for each country are different from one another (furthermore, the franchised stores are legally independent, sometimes have a high degree of decision-making freedom in terms of marketing mix management, and their commercial performance is assessed according to the competitive environment specific to each country).

After comparing different nested models, the model below, which has a high explanatory power ($R^2 = 0.747$) while using a minimum number of variables (principle of parsimony), has been used to calculate the market share. It takes into account the proportion of stores, the variables 'geographic location' and 'type of store', as well as the interactions between the geographic location and the type of store, and between the geographic location and the proportion of stores. The interaction between the number of years since the store was opened and the proportion of stores is also considered since the number of open stores is logically a function of the time elapsed since the first store was opened. On the other hand, the third-order interactions are removed because they do not significantly increase the R^2 of the overall model. The final model for a given brand is formulated as follows:

$$Market\ share_i = \rho + \tau * proportion\ of\ doors_i + \sum_j \beta_j type\ of\ shop_j + \sum_k \alpha_k Zone_k + \sum_l \gamma_l proportion\ of\ doors_l * time + \sum_m \delta_m proportion\ of\ doors_i * Zone_m + \sum_{n,o} \theta_{n,o} type\ of\ shop_n * Zone_o + \varepsilon$$

The above model helps to explain a large proportion of the variation in market share between the different retail brands versus the null model where the market share is equal to the average market share for all retail brands. The H0 hypothesis is rejected with a very low probability (Fisher's F =12.810; $p<0.0001$). Table 1 below details the contribution of each variable and of their interaction to the quality of the model, by evaluating the impact of removing it from the model: the lower the probability F associated with the Fisher test, the stronger the impact of the variable on the quality of the model. At a threshold of 5%, the variables 'proportion of stores', 'type of store', 'geographic location' and the interactions between the proportion of stores and the number of years of existence, between the proportion of stores and the

geographic location and finally between the type of store and the geographic location are all significant. The market share of a retail brand is therefore determined primarily by its market coverage as reflected by the relative number of stores, the type of store and the geographic location, but also by the interactions between these variables. This finding gives a preliminary positive answer to the question raised in the title of our article: commercial performance, measured by market share (vol.), is influenced both by '*where I am*' and '*who I am*'. Furthermore, while the variable related to the time elapsed since the first store was opened in a geographic zone, does not, on its own, have an impact, it does have an effect when in interaction with the variable 'type of store' ($F=4.541$; $p=0.035$). Finally, the geographic location is an important determinant of market share, both by itself and in interaction with the percentage of stores owned by the brand and the type of store. Thus, market shares vary according to the type of store, the geographic location and the time elapsed since the first store was opened, which contradicts the idea of a global market governed by a single set of rules applicable to everyone, everywhere and at all times.

Table 1: Fisher's F-test for each variable of the market share model

Source	DDL	Somme des carrés	Carrés moyens	F	Pr > F
Proportions de magasins	1	0,107	0,107	30,648	< 0,0001
Type d'enseignes	3	0,033	0,011	3,129	0,029
Zone géographique	5	0,079	0,016	4,488	0,001
Proportion de magasins x Délai d'installation	1	0,016	0,016	4,541	0,035
Proportion de magasins x Zone géographique	5	0,274	0,055	15,676	< 0,0001
Type d'enseignes x Zone géographique	11	0,073	0,007	1,895	0,047

Columns
DDL: degrees of freedom
Somme des carrés: Sum of the squares
Carrés moyens: Mean squares

Rows
Proportions de magasins: Proportion of stores
Type d'enseigne: Type of store
Zone geographique: Geographic location
Proportion de magasins x Delai d'installation: Proportion of stores x time elapsed since first store opened
Proportion de magasin x Zone géographique: Proportion of stores x Geographic location
Type d'enseignes x Zone géographique: Type of store x Geographic location

What interpretation can be drawn from the final ANCOVA result? The values of the parameters for each variable in the model (and their interactions) are indicated in Annex 1. The t-test confirms that the coefficients are significantly different from zero, which leads to the rejection of hypothesis H_0. Let us bear in mind that perfumeries and Western Europe are used as reference for the calculation of the coefficients (these parameters are therefore set to 0) and that the value of the other coefficients must be interpreted in relation to this reference value.

Several conclusions can be drawn:
- The value of the constant term (3.9%) gives an indication of the average market share, independently of the effect of any other variable: it is low.

- The geographic location has an impact on the average market share, since all other things being equal, the latter is lower in South-Eastern Europe (Greece and Turkey) and Eastern Europe (Poland, Czechoslovakia, Romania) than in Western Europe (France, Spain, Italy, Portugal).
- The time elapsed since the first store was opened is not significantly correlated with market share. However, we found that the interaction between the variable 'time elapsed since the first store was opened' and the relative 'proportion of stores' has an impact on the market share (val.=0.006; p=0.035). In other words, the time elapsed since the first store was opened only has an effect on the market share if the brand utilizes this time to open a large number of new stores.
- *The proportion of stores alone* has no impact on market share. However, it does have a very significant effect when in interaction with the geographic location. Thus, in North America, South East Europe and Eastern Europe, the higher the number of stores owned, the greater the market share. In reality, these three regions share the same characteristic: Department stores and drugstores' historically high market share is now being challenged by more specialized brands, primarily perfumeries/cosmetics store chains and stores that sell their own brand, which are more recently established retail brands but are particularly dynamic organizations.
- Finally, with respect to the nature of the brand, the drugstore modality is the only one that has a significant impact: this impact is positive in Central and South America and Eastern Europe, whereas it is negative in North America (Canada) when the average market share of perfumeries/beauty chains are used as reference. In other words, in Canada, any type of retail brand - other than a drugstore - with the same number of stores has a higher share of the selective cosmetics retail market than drugstores do.

What does our explanatory model indicate about market share performance in the international cosmetics market? The ANCOVA model, which includes factors related to the brands' time in existence, their number of stores, their geographic location, and their nature (as well as their interactions), has a strong explanatory power of their market share (R^2=74.7%). In the world of cosmetics, a brand's 'time in existence' alone has no effect on commercial performance. This factor must be combined with a relatively high number of stores to have a positive effect on the brand's market share. Only a long time of market presence coupled with a high proportion of sales outlets has a positive effect on market share. A dynamic of commercial success is therefore based primarily on the pace at which the brand opens new stores to secure good customer coverage in both small and large territories. Similarly, the number of outlets alone does not explain a brand's international market share. Time in existence and geographic area must be considered. The number of stores is very often used as an indicator of a brand's commercial development. And the impact of the number of stores on a given brand's market share must be assessed in a specific geographic context. Finally, with respect to the nature of the store brand, "drugstores" is the only modality that has a significant effect on market share; it is positive in Central and South America and Eastern Europe and negative in North America: drugstore companies, which have historically been present in large numbers in North America appear, at first sight, to have larger shares of the market, but this is merely due to the fact that they have larger numbers of outlets than other types of retail brands. Finally, the nature of the brand combined with the geographic location proves to be an explanatory factor of commercial performance, which allows us to answer positively the question raised in the title of our article: the commercial performance is, indeed,

determined by "*where I am*" and "*who I am*" and by the interaction between these two variables. This broadens the scope of Arnold et al's findings (1978) regarding the food and clothing retail market.

Our study presents some limitations which further research should address. We have limited the scope of our study to retail brands in the selective cosmetics segment and it would be useful to consider the mass market channels (hypermarkets and supermarkets), as well as E-commerce, the duty-Free or door-to-door retail segments. Other major markets also deserve to be studied: The United States in North America, and China, Japan and Korea, in Asia, which we have not considered here. Finally, it would have been interesting to include in the model an estimate of the average sales area per brand. All these limitations are an invitation for further research, using the same approach and removing some of the constraints inherent in any research.

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Appendix 1: Parameters of the ANCOVA market share model (glossary follows)

Source	Valeur	Ecart-type	t	Pr > |t|	Borne inf. (95%)	Borne sup. (95%)
Constante	0,039	0,014	2,787	**0,006**	0,011	0,067
Proportion de magasins	0,189	0,138	1,366	0,175	-0,085	0,462
Type d'enseignes						
Grands magasins	0,029	0,029	0,975	0,332	-0,030	0,087
Magasins vendant leur propre marque	0,027	0,021	1,309	0,193	-0,014	0,069
Parfumeries / chaînes de beauté	0,000	0,000				
Drugstores	-0,089	0,049	-1,835	**0,069**	-0,185	0,007
Zones géographiques						
Moyen-Orient	0,013	0,033	0,406	0,685	-0,052	0,079
Europe de l'Ouest	0,000	0,000				
Amérique Centrale et du Sud	-0,001	0,030	-0,043	0,966	-0,061	0,058
Amérique du Nord	-0,016	0,044	-0,357	0,721	-0,104	0,072
Europe de l'Est	-0,053	0,023	-2,353	**0,020**	-0,098	-0,008
Europe du Sud Est	-0,091	0,033	-2,726	**0,007**	-0,156	-0,025
Proportion de magasins						
(…) * Délai d'installation	0,006	0,003	2,131	**0,035**	0,000	0,011
Proportion de magasins						
(…) * Amérique du Nord	1,700	0,482	3,526	**0,001**	0,745	2,656
(…) * Europe du Sud Est	1,028	0,202	5,084	**< 0,0001**	0,627	1,428
(…) * Europe de l'Est	0,688	0,154	4,455	**< 0,0001**	0,382	0,994
(…) * Moyen-Orient	0,091	0,215	0,423	0,673	-0,335	0,517
(…) * Europe de l'Ouest	0,000	0,000				
(…) * Amérique Centrale et du Sud	-0,139	0,139	-0,997	0,321	-0,414	0,137
Type d'enseignes - Grands magasins						
(…) * Europe du Sud Est	0,041	0,048	0,850	0,397	-0,055	0,137
(…) * Amérique Centrale et du Sud	0,007	0,046	0,141	0,888	-0,085	0,098
(…) * Europe de l'Est	0,000	0,000				
(…) * Europe de l'Ouest	0,000	0,000				
(…) * Moyen-Orient	-0,029	0,042	-0,679	0,499	-0,113	0,055
(…) * Amérique du Nord	-0,083	0,062	-1,329	0,187	-0,206	0,041
Type d'enseignes - Drugstores						
(…) * Amérique Centrale et du Sud	0,155	0,079	1,966	**0,052**	-0,001	0,312
(…) * Europe de l'Est	0,119	0,059	2,010	**0,047**	0,002	0,235
(…) * Moyen-Orient	0,000	0,000				
(…) * Europe du Sud Est	0,000	0,000				
(…) * Europe de l'Ouest	0,000	0,000				
(…) * Amérique du Nord	-0,313	0,138	-2,266	**0,025**	-0,587	-0,039
Type d'enseignes - Magasins vendant leur propre marque						
(…) * Moyen-Orient	0,017	0,043	0,406	0,686	-0,067	0,102
(…) * Europe du Sud Est	0,000	0,000				
(…) * Europe de l'Ouest	0,000	0,000				
(…) * Europe de l'Est	-0,001	0,036	-0,021	0,983	-0,072	0,070
(…) * Amérique Centrale et du Sud	-0,038	0,039	-0,967	0,335	-0,115	0,040
(…) * Amérique du Nord	-0,051	0,058	-0,871	0,385	-0,166	0,065
Type d'enseignes - Parfuemries / chaînes de beauté						
(…) * Amérique Centrale et du Sud	0,000	0,000				
(…) * Europe de l'Est	0,000	0,000				
(…) * Moyen-Orient	0,000	0,000				
(…) * Amérique du Nord	0,000	0,000				
(…) * Europe du Sud Est	0,000	0,000				
(…) * Europe de l'Ouest	0,000	0,000				
En gras surligné : seuil de 5%						
En gras : seuil de 10%						

Columns
Valeur : value
Ecart-type: Standard deviation
Borne inferieure: Lower boundary
Borne superieure: Upper boundary

Rows
Constante: constant
Proportion de magasins: Proportion of stores
Type d'enseigne: type of store
Grand magasins: Department stores
Magasins vendant leur propre marque: Stores selling their own product brand
Parfumeries / chaines de beaute: Perfumeries/beauty chains
Zones géographiques: Geographic location
Moyen-Orient: Middle East
Europe de l'Ouest : Western Europe
Amérique centrale et du Sud : Central America and South America
Amérique du Nord: North America
Europe de l'Est: Eastern Europe
Europe du Sud Est: Southern East Europe
Délai d'installation: time in existence