BRAND VALUATION USING ROYALTY RELIEF METHOD AND LINEAR DISCRIMINANT ANALYSIS.

Gracia Rubio Martín.
U. Complutense de Madrid.
graciarubiomartin@ccee.ucm.es
TEL.+34 667821171.

Francisco Pérez Hernández.
U. Autónoma de Madrid.
f.perez@uam.es
TEL.+34 692138666.

Conrado M. Manuel García.
U. Complutense de Madrid.
conrado@estad.ucm.es
TEL.+34 669288299.

ABSTRACT.

The aim of this paper is to introduce a statistical procedure to value a brand, by means of which firms may be able to determine the level of implicit royalty that they would charge for the use of their brand, applying multivariate techniques from market references. In this manner, the study has been based on a statistical contrast of the royalties paid in Spanish franchises belonging to three different industries: food, health and beauty and fashion. Each industry has been segmented using cluster techniques, and then, through linear discriminating analysis, a model is proposed to explain the royalty paid according to certain economic-financial figures of the companies. The implicit impartiality in the development of the model means that it could be generally accepted by analysts, consultants and companies who need to determine the value of a brand.

Key words: brand valuation, intangible, value driver, fair value, discriminating analysis.

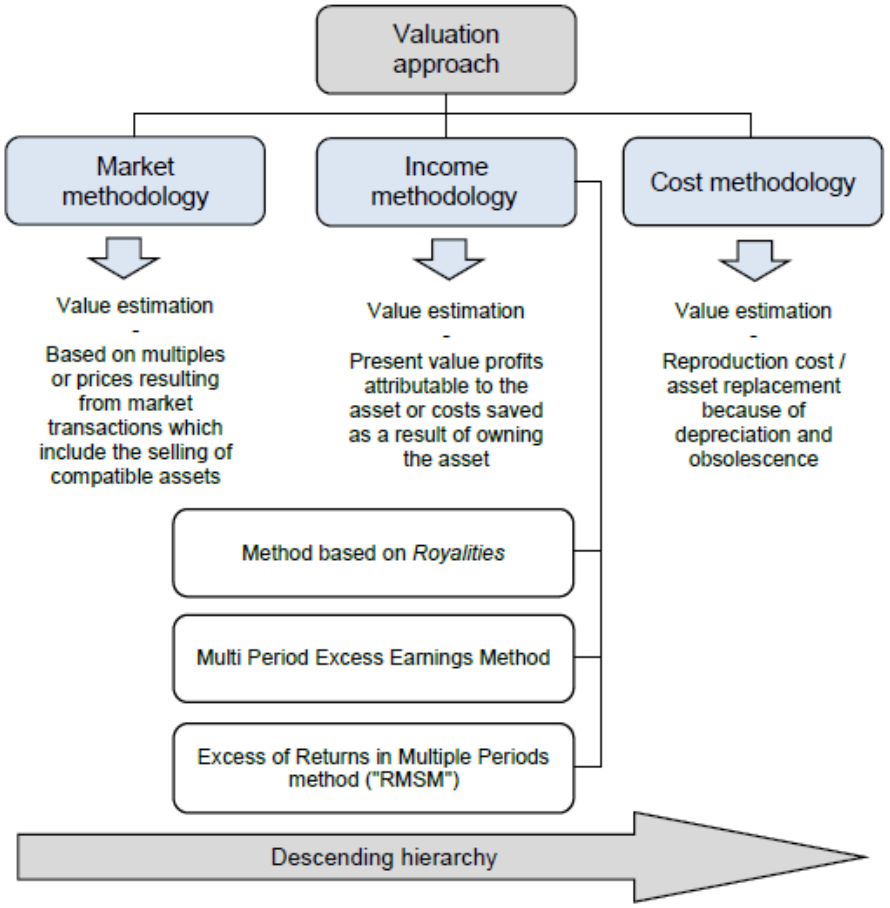
1. INTRODUCTION: AN APPROACH TO THE PROBLEM OF INTANGIBLE ASSETS.

In the last three decades some authors, such as Lev (1989, 2000, 2005), have shown the gradual increase between firms´ market value and their book value. Other authors, such as Brown et al (1999), or Dantoh et al (2004) also warn about how equity and profits have lost relevance for explaining the market value of American companies. In the Spanish case we can observe the work of Iñiguez and López (2006), who introduce a measure of the intangible value not explained by financial economic magnitudes of the firms, but paid in the prices of business transactions (around 50%). Also interesting is the work of Rubio et al (2013), who find that for the pharmaceutical and biotechnology sectors, heavily associated with research and development, these quantities paid and unexplained are higher than 69%. Others empirical results, like Han-Min Wang et al (2012), show that the brand equity of companies is mainly affected by their advertising expenditure and brand equity has a significant positive impact on market value in the Taiwan's financial service companies. All these works suggest a change in the business model: this has moved from a system based on industrial production to another one in which firms base their success on knowledge. Drucker (1993) points out that this transformation is due to a reorganization process in society and its way of looking at the world and its view about basic values.

However, intellectual capital, defined as the research, development of new products, strategy, brand and corporate image has turned into a powerful generator of firms' value. For that reason, academics as well as accounting and financial professionals have tried to establish models with which they can measure the value of the different kinds of intangible assets. In mergers and acquisitions, and also in business combinations, the necessity of intangible valuation becomes more urgent. In these cases, International Accounting Standards, and in particular the International Financial Reporting Standard 3, also known as IFRS 3, state that the purchasing company will have the obligation to identify and measure each one of the assets and liabilities derived from the operation performed, including even tangible and intangible assets.

Such assets as the International Accounting Standards 38 (IAS 38) and the aforementioned IFRS 3 establish will be quantified by their fair value, which is defined as the amount for which each asset can be exchanged, or a liability cancelled, between the concerned parties, properly informed. The transaction must be performed on mutual independence terms, including market expectation and, at the same time, excluding the synergies for a particular buyer. Besides, both standards impose a hierarchy in the valuation criteria (see Figure 1): market and income methodology. If none of these could be used, then the replacement cost methodology would be applied.

Figure 1: Synthesis of intangible evaluating criterion.



Source: own elaboration.

Specifically, market methodologies involve the use of multiples, which will depend on prices paid in previous transactions. Nevertheless, one problem of this method is the absence of a database, by business areas, about prices

paid for individual intangible assets which have similar characteristics to these that need to be valued.

Likewise, income methodologies have had greater academic and professional growth. A royalty-saving method is one of the most common typologies, specially used to assess brands and patents, and it is the one that has been introduced in different ways by consultant agencies such as Brand finance (2000), Intangible Business (2001, 2004), Whitwell (2003), and AUS Consultants or Consor. These last two consultant agencies were included in Salinas (2007). This method is based on the measurement of the royalty after the payment of taxes or license payments that have been saved as a consequence of having the ownership of the asset. It requires market data of licenses and royalties applied to patent valuation. The problem with these methods, which take market-related data, is that they lack the mathematical techniques and contrasts them to provide reliability. They do not test if the companies used as a reference are appropriate, or whether the variables and multiples used provide suitable and sufficient information on royalties paid, like we show later.

Other income methods frequently employed for intangible assessment are: the multiple periods earning excess of return, incremental cash flow and real options. The first one is built on operating cash flows of the enterprise and, from these will be deducted in order to determine the cash flow arising from the excess of return, the charges of the other contributory assets (tangibles and intangibles). Authors such as Smith (1997) or Lev (2001) and consulting agencies like Brand Economics (2002) base their proposal on this technique. Concerning the incremental cash flows method, its main goal is the measurement of the increase of these cash flows due to a price premium in goods and services sold by companies or savings that come from the ownership of the intangible asset. Some academics, such as Damodaran (1997), Reilly (1999) or Fernández (2007) have developed this methodology. Consulting agencies such as Interbrand[1] or BBDO (2001, 2002), through the division Brand Equity, also have used it in many modalities. Finally, the real options method includes uncertainty and risk as variables in the valuation of the

[1] Technique exposed in Motameni (1998) and in Ratnatunga and Ewing (2008).

assets depending on companies' expectations. Despite the fact that this method is not too frequently used by consulting agents, AICPA (2011) highlights that this methodology is one of the best available to compute the valuation of some assets like patents or research and development expenditures for innovative and technology-based company or even the generation of brands in competitive environments, because one of the main features of this method is the flexibility that it incorporates. Among the authors who have proposed this technique in diverse variations Myers (1977), Kulatilaka (2000), Schwartz (2001) and Rubio and Lamothe (2010) are worthy of mention.

Nevertheless, despite the efforts that have been made, there is still a large heterogeneity present among all the methodologies shown above. Salinas (2007) collects 46 different methods of trademark assessment and, as we are going to explain in detail, some of them include high doses of subjectivism in the calculation of their magnitude. For that reason, the development of valuation proposals, in an objective and reliable way, for intangible assets, is still a challenge for economic science.

The goal of this paper is to introduce a statistical procedure which could be generally accepted, by means of which firms may be able to determine the level of an implicit royalty that they would charge for the use of their brand, applying multivariate techniques from market references.

This paper is organized as follows: after the Introduction, in the second section the problems involved in the calculation of the royalty relief are analyzed. In section 3 the data, hypothesis, theoretical framework and basis of the proposed model are developed. In section 4 we deal with the applications and results of the model from the available sample and finally, the article ends with the conclusions and future lines of research.

2. THE PROBLEMS INVOLVED IN THE CALCULATION OF THE ROYALTY RELIEF.

Brands are, indisputably, one of the most important sources of value of companies. But the great problem when valuing them, as pointed out by Fernández (2004), is to properly delimit the corresponding flow, from the

objective data and also this data to capture what any independent investor of the market would be willing to pay for it.

Brands can be defined as distinctive signs of products or services on the market which are usually protected for their owner by registration rights. So the benefits that can be attributed are the ones which derive directly from its use, through any of the methods pointed out above. Nevertheless, brands also include psychological aspects, in other words, symbolic constructions in the users' minds on the basis of which future expectations about their functioning will be generated. In this sense, Aaker suggests a brand measuring model called *The Brand Equity* Ten, based on aspects such as loyalty, quality and leadership, differentiation from other products, the awareness the Brand awakens in the mind of the consumer and the behavior of the market. Many times the so called brand strength is used to summarize all these aspects, but the methodologies occasionally developed by consultants, such as BBO, Interbrand, Brand Economics, Financial Word or Intangible Business, among others, do not have a mathematical and statistical basis to justify their use or its quantifying. And thus, both their treatment and the modeling of the intangible asset have large amounts of subjectivity.

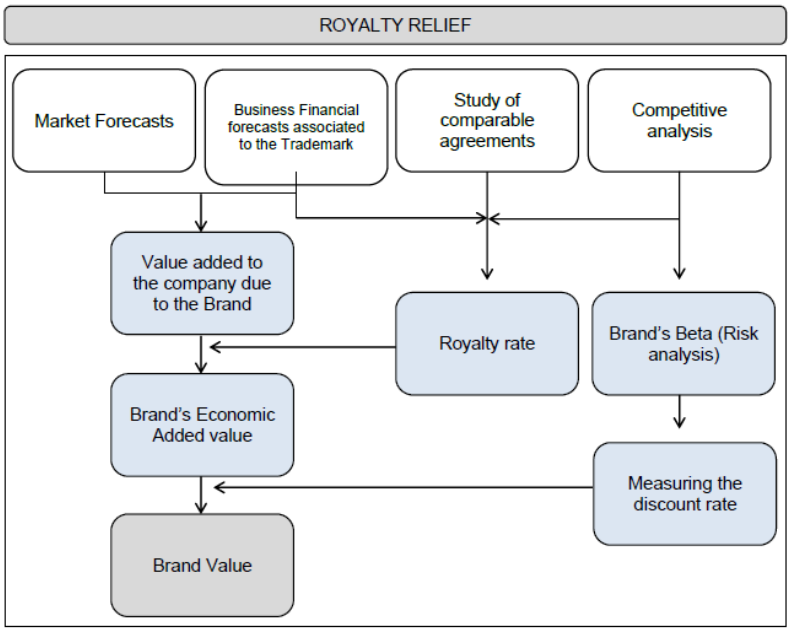
In order to illustrate all of this, the pricing model of the English consultant Interbrand was taken as an example. As explained in Ratnatunga and Michael (2008) or in Salinas (2007) this proposal mixes financial variables and others coming from marketing. Firstly it calculates the brand's relative profit, deducting that coming from a generic asset or a white trade mark, using the industry ratios[2]: tangible assets over sales and tangible assets over the profit. This result (the portion of profit corresponding to the intangible assets) is multiplied by the "brand strength factor", a key factor which was previously calculated through qualitative variables: (i) leadership or a brand's ability to hold a dominant market share, which receives a maximum score of 25 points, (ii) stability or ability to retain loyalty for long time periods (15 points) (iii) market, taking into account that certain markets involve greater abilities to grow than others (10 points), (iv)

2 The multiple is a ratio that incorporates in its numerator the value of the company's economic structure, defined as the market price plus the net financial debt, and in its denominator an economic variable such as the sales, for example. If the ratio in a certain sector is 2, this means that, on average, the economic business structure is valued at twice the sales. If the numerator is replaced for the tangible asset value, and this multiple is 0.7, for example, then the difference between both multiples: 2-0.7=1.30 is the part that can be attributed to the intangible asset. Thus 65% of the sales flow would correspond to the intangible structure.

support given by the organization itself for an appropriate management (25 points), (v) international image, if it has an international image it would receive a maximum of 10 points, and, lastly, (vi) tendency or ability to maintain its relevance (5 points). At the same time, the brand's strength factor is functionally related to the PER ratio (Price-Earnings Ratio or number of times the price exceeds the profit) through an S-shaped curve. Interbrand indicates that this curve comes from a comparison carried out by the company about a study of comparable brands. In line with the conclusions by Fernández (2001), Coronas (2002) or Tollington (1999), there is a great subjectivity in the calculation of brand strength through the method explained before when determining the factors and when weighting these. This is due to the lack of a statistical contrast that justifies the proposed use. Furthermore, the way by which the relation between the PER ratio and the strength factor is introduced via a mathematical function, does not include the inherent variability which is present in the real world.

Something similar applies for proposals based on the royalty technique, on which the development of this article is based. First, brand valuation, as detailed in the following image (figure2), consists of a long run estimation of the companies' sales.

Figure 2. Royalty according to Brand Finance



Source: Salinas (2007)

Second, it is necessary to determine the royalty rate which would correspond to that sales forecast. Then this rate would be multiplied by the forecast sales and so we find the cash flow corresponding to the brand. Third, it is necessary to determine a proper discount rate which must include the risk associated with the valued asset and, lastly, it would suffice to update the cash flows and find the sum of the updated assets whose result would correspond to the brand's value.

Although the method is simple, when a company has a product but it does not collect any money for the license, the calculation of the proper royalty, in the event of an assignment of the brand becomes more difficult and, as in the previous case, the proposed models do not include the impartiality and accuracy required by the process. For instance, according to Salinas (2007), Consor consulting is developing a model based on the licenses of other similar brands. To do this, they start by valuing the brand strength according to twenty determining factors, among which the following are included: profit margins, brand's life cycle state, transferability and its international protection. Regarding the comparison's purposes, the company uses a database of 10.000 licensing operations from which is obtained the royalty rate that will be applied to the sale price of the company. Then, we just mention the application of multipliers such as the brand's remaining life, the company's sales growth and the discount rate.

For its part, the proposal of Intangible Business Ltd (2001, 2004), also determines the brand strength against competitors through the variables that are shown in Figure 3. Thus, this figure also contains measures related with the strength of the different trademarks that participate in the market.

Figure 3. Analysis of the brand's relative strength: Benchmark.

Competitors	Recognition	Relevance	Satisfaction	Differentiation	Loyalty	Brand's score
Our own Trademark	63	70	56	63	40	**58**
Competitor 1	50	60	80	52	45	**57**
Benchmark	85	90	80	65	62	**76**
Competitor 2	73	65	50	50	35	**55**
Competitor 3	80	90	75	62	50	**71**

Source: Intangible Business (2004)

The reference competitor, Benchmark, collects an explicit royalty, the market's maximum, and from this the score of the valued brand is obtained. If, as in figure 3, the score obtained by the valued company is 58 and the market's maximum is 76, with a royalty of 5%, a rule of three, would suffice to find that the royalty that would correspond to a score of 58 is 3.82%.

As shown in the figure 3, the variables that nurture the brand strength are not the same in the three models (Interbrand, Consor Consulting and Intangible Business), given the non-existence of generally accepted criteria, which leads to the inclusion of great doses of discretion. The same happens when determining their weights, with both lacking an aforementioned mathematical and statistical contrast. The factors or variables often redundant or even correlated with each other, thereby, the whole process leads to the calculation of a royalty which is probably biased, but, in addition, its calculation is deterministic, as this is also the case for Interbrand, and it does not take into account the random nature of the market's in which it is involved. Finally, the methods assume that the factors and their weights are the same for all industrial sectors, regions or categories, when in fact they may vary.

Nevertheless, statistical techniques have been used in other brand analyses, but only in works that deal with the utility that it generates in consumers and in their decisions as a direct result of the variables or attributes owned by a brand or product. For instance, Punj et al (1983) explained issues and problems related to the use and validation of cluster analysis to discover a preliminary identification of clusters in marketing research. Perreault et al (1979) show, across discriminant analysis, a better understanding of how some groups of customers or items differ as a consequence of some set of explanatory metric variables, such as a set of attributes or performance ratings. Sivakumar et al (1997) have proved that higher quality brands are generally less affected by a rise in prices than lower quality brands. Other remarkable works are the ones about the application of joint analysis[3], like Kamakura and Russell (1993), Swait et al (1993), or the ones about logit regression techniques, as in Green

[3] It is basically a statistical technique that allows us to measure the relative value of each feature of a product, with which it can be determined which combination of these features maximizes the probability of being chosen by the consumer. Its application to marketing was conceived in 1974 by Paul Green, professor in The Warton School.

and Srinivasan (1974), Park and Srinivasan (1994) or Jourdan (2001). More recently the work of Chung and Rao (2012), presents a general consumer preference model that overcomes the limitations of consumer choice models, when it is not easy to consider some qualitative attributes of a product or when there are too many attributes. These works neither make up an overall and quantitative measure of the brand nor show the value generation that this measure has for the company. This must be determined in a business combination. Nevertheless the finality is to understand the consumer's reactions to carry out a proper brand positioning strategy in a market or to choose the features a product must have to be launched with guarantees of success. However, of interest for the implementation in our work are aspects such as segmentation and analysis of heterogeneity in preferences and in consumer loyalty for the good fit of the models and their predictive ability.

Although authors like Nomen (2005) or Torres and Coronas (2002) also warn about the flaws of the royalty methodology and the necessity of including statistical techniques to develop more objective models, the fact is that there is still no generally accepted proposal.

A generally accepted financial model to determine the implicit royalty should contain, first, explanatory variables that meet the objective and are comparable and uniform for all companies in the sample measures. Second, it should include an empirical test of how the variables that are used explain the royalty paid. This, in turn, would have to check whether it is possible to segment the market to identify different patterns of behavior in the generation of royalty, and then, determine how is the behavior of the variables in each segment, as well as their classification capacity to assign new implicit royalties.

3. THE SAMPLE OF COMPANIES, HYPOTHESIS, THEORETICAL FRAMEWORK AND BASIS OF THE PROPOSED MODEL.

With the aim of producing convergence between the academic environment and the professional environment, a process is proposed that incorporates enough statistical tools in order to obtain higher accuracy and objectivity in the brand valuation. The data of franchising, which are public and

provided by the firms through specialized web pages, have been chosen for the following industries: food, health and beauty and fashion (they are listed in annex 1). Besides, the required royalties have been obtained for the operation of franchising, as well as the number of establishment that each one of the franchises has. In addition, economic and financial variables used in the analysis have been obtained from SABI (system analysis of Iberian balances) data base.

By this way, the study has been based on a statistical contrast on the royalties paid in Spanish franchises belonging to different industries. It has selected three sectors heterogeneous enough to each other to test whether the model works the same way in each of them, and that are the largest in number of companies and data among Spanish franchisors. With this study, the following hypotheses are analyzed:

I. If the cluster technique can help to discover distinct groups in the enterprises' database. Also it is a tool to observe different economic characteristics in the distribution of data.

II. At the beginning of the article several studies have been discussed showing the inability of accounting variables to explain the values of companies and especially their intangible values. For this reason, it is necessary to check if the main economic and financial variables of Spanish franchisors have sufficient explanatory power to explain the different groups of royalties collected and, therefore, their brands.

III. If the linear discriminating analysis turns out to be a useful and operative tool to properly explain the paid royalties and if the regressions and the weights of the variables are the same or change for different industries.

IV. If the methodology is useful for predicting what would be the corresponding royalty to a new company of the industry.

V. On the basis of the scores generated by the model, it can also be considered if we can determine the strength of a brand compared to the other competitors on the market regardless of the group it belongs.

In this paper, firstly, a Cluster analysis and, secondly, a Linear Discriminant analysis (LDA) have been used, both through an SPSS statistical

programme. From the first technique a K-Means Clustering analysis was made in order to obtain a group classification for each industry, according to clearly defined features that exogenous variables show. The best classification found is the one corresponding to three groups, called: high, medium and low royalty. In this way, every one of these records the elements of the sample that, on the whole, achieve the maximum distance of its means, also known as centroids.

The exogenous variables, which have been selected, are a good representation of the value drivers of a company from different points of view, so that any analyst would take them into account in an assessment process. They are the following:

1- ***Royalty or Income Fee*** that the lessor collects for the use of the Brand in accordance with the franchise arrangement.
2- ***Total Establishment***, including these that are operated by own firm or by third-parties.
3- ***Market Share***, measured from the result of dividing the turnover of each franchise between the total incomes that each industry generates.
4- ***Gross Operating Margin***, i,e. the quotient obtained dividing gross profit (which is at the same time the difference of the sales and the cost of the same) and the turnover obtained for each company.
5- ***EBITDA Margin***, i,e. the quotient between the earnings before interest, taxes, depreciation and amortization (EBITDA) and the figure regarding revenues.
6- ***Return on Assets or ROA***, known as the quotient between EBITDA and the net book value of the asset.
7- ***Employees Productivity (EBIT/Employee)***, measured as the ratio among the earnings before interest and taxes (EBIT) and the number of employees.

The groups resulting from applying the technique of cluster basically match those that come from manually classified companies only based on their royalty, without the rest of the variables, which shows that the market is efficient and there is a clear relationship between groups of prices paid and economic

characteristics of the enterprises. Table 1 introduces classified differences which have been obtained from the proposed variables for each industry.

Table 1. Classification from K-means cluster.

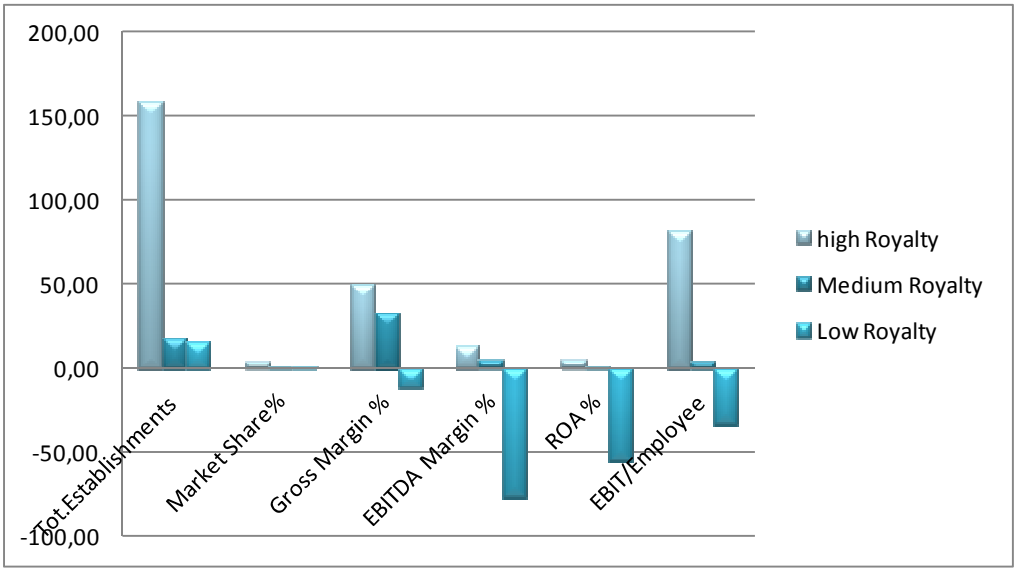
				FOOD		HEALTH AND BEAUTY		FASHION	
Food	Health and Beauty	Fashion		Mean	Stand.Deviation	Mean	Stand.Deviation	Mean	Stand.Deviation
Medium Royalty 5.4. Nº of cases 43.	Medium Royalty 5.2. Nº of cases 39.	Medium Royalty 3. Nº of cases 37.	Tot.Establishments	17.91	14.25	19.21	18.11	15.92	11.24
			Market Share%	0.27	0.66	0.78	1.98	0.92	1.37
			Gross Margin %	33.25	16.07	47.52	20.83	32.55	15.79
			EBITDA Margin %	5.20	13.64	10.10	11.67	6.19	9.42
			ROA %	0.07	12.99	7.17	10.31	3.90	11.48
			EBIT/Employee	4.50	27.61	8.84	21.00	5.07	12.05
Low Royalty 4.2. Nº of cases 11.	Low Royalty 3.1. Nº of cases24.	Low Royalty 2. Nº of cases 18.	Tot.Establishments	15.91	23.59	24.00	25.20	80.50	48.05
			Market Share%	0.01	0.02	1.17	3.26	3.56	5.68
			Gross Margin %	-11.51	39.62	21.46	20.17	31.30	9.24
			EBITDA Margin %	-76.09	47.34	-13.57	15.65	3.05	15.91
			ROA %	-54.54	29.18	-19.15	22.76	1.77	12.37
			EBIT/Employee	-33.43	36.78	-10.12	9.83	6.78	16.29
High Royalty 6.5. Nº of cases 19.	High Royalty 6. Nº of cases 11.	High Royalty 4. Nº of cases 2.	Tot.Establishments	158.74	122.00	199.00	145.86	75.50	105.36
			Market Share%	4.08	6.20	3.74	7.34	0.96	1.29
			Gross Margin %	49.64	20.54	51.09	22.87	80.93	81.87
			EBITDA Margin %	13.95	16.21	13.97	13.70	31.97	11.08
			ROA %	4.92	7.82	16.16	19.81	21.96	27.92
			EBIT/Employee	81.14	323.50	39.99	46.59	327.67	350.37
Total 73. Royalty 5,50	Total 74. Royalty 4,56	Total 57. Royalty 2,56	Tot.Establishments	54.26	88.38	47.49	85.75	38.40	43.97
			Market Share%	1.22	3.57	1.35	3.72	1.75	3.54
			Gross Margin %	30.77	29.07	39.60	24.24	33.85	19.71
			EBITDA Margin %	-4.77	37.61	3.00	17.58	6.10	12.77
			ROA %	-6.90	25.39	-0.03	21.44	3.86	12.58
			EBIT/Employee	18.73	168.40	7.32	28.62	16.93	77.08

Source: own elaboration.

We can highlight (see also figure 4) the presence of remarkable differences over all magnitudes that have been used, among the cluster of each industry. Specifically, the average royalty collected by the food industry is 5.5%, larger in comparison with the health and beauty, and fashion industries, which are 4.56% and 2.56%, respectively. On the other hand, high variability among the means of the groups can be seen (the group of high royalty generates exogenous variable values greater than the medium and low range). In the case of the food industry, we find that the exogenous variable that represents the number of *Total Establishments* is up to 159 for aggregated companies in the high royalty, while for the second group, medium royalty, it is just 18 aggregated shops and for the low royalty, just 17. This also happens for the other variables: *Market Share* is up to 4.08% in the first and, in the second, it falls by up to 0.27%, while for the third it is even lower, just 0.01%. Looking at the *Gross Margin*, it is 49.64%, falling to 33.25% and reaching a negative figure of -11.51% for the low royalty cluster; *EBITDA margin* represents 13.95%, decreasing to 5.20% and again turning into a negative value of -79.09% in the

low royalty cluster. The *Return of the Assets (ROA)* is 4.92%, descending to 0.07% and -54.54% respectively, and finally, *EBIT per Employee* is 81.14 (in thousands of euros) for the high royalty group, while for these companies that have been classified as medium royalty, it is notable that its figure falls by up to 4.5 (in thousands of euros) per worker, and again, the value for the low royalty is below zero.

Figure 4. Differences between cluster figures in food sector.



Source: own elaboration.

Once the different groups for each industry have been obtained, the LDA is utilized in order to check if each one of the variables used is an adequate indicator to explain the royalty paid. Following Dillon et al (1978): *"if the assumptions of normality and identical covariance matrices are satisfied, them there is no reason to examine alternatives to Fisher's LDF (discriminant functions)*[4]*"*. In this way LDA assesses can be employed to determine what the implicit royalty for a company will be. For that purpose, a previous descriptive univariate analysis has been used, through the Wilks' Lamba, λ, which is equal to the quotient between the sum of the square of each group (squared deviations of each data point concerning the mean of the groups or centroid)

[4] In many marketing analysis explanatory variables are usually qualitative, in the sense that each variable takes on a small number of values and the Fisher's LDF method can introduce distortions. However, in our analysis the explanatory variables are quantitative, tend to fulfill a normal distribution and equal covariance matrices according to The Box's M test.

and the total square sum (squared deviations of each data point concerning the mean of the whole points). The closer the result is to zero the greater will be the discriminating power and this is a consequence of the differences between the groups but not within them.

Table 2. Univariant Wilks' Lambda.

	FOOD		BEAUTY AND HEALTH		FASHION	
	Wilks' Lambda	Sig.	Wilks' Lambda	Sig.	Wilks' Lambda	Sig.
Tot.Establishments	.501	.000	.447	.000	.507	.000
Market Share%	.771	.000	.924	.061	.878	.030
Gross Margin %	.561	.000	.725	.000	.788	.002
EBITDA Margin %	.343	.000	.562	.000	.835	.008
ROA %	.360	.000	.592	.000	.917	.097
EBIT/Employee	.945	.137	.680	.000	.398	.000

Source: own elaboration.

As can be perceived in table 2, practically all Lambda values are significant for the classification of the groups, that is, they show a p-value lower than 0.05, except for the *EBIT/Employee* ratio in the case of the food industry. Actually, the *Market Share* variable is not significant in the case of the health and beauty industry, and the same occurs with *ROA* in the fashion industry. Nevertheless, despite the fact that these variables are not significant individually it does not prevent the proposed model being significant. The linear discriminating analysis can be considered as a regression technique that establishes linear relationships, where the endogenous variable is a categorical one (determines the groups) and the exogenous variables, being continuous, will help to predict the belonging group. To achieve this mathematically, series of equations are going to be generated (two in this case as we have three classification groups) with the aim of discriminating or separating all the groups as much as possible:

$$D_j = \alpha + b_{1j} * Est + b_{2j} * MShare + b_{3j} * GrossMarg + b_{4j} * EBITDA + b_{5j} * ROA + b_{6j} * Prod + \varepsilon$$

(1); *j=1, 2;*

For *Est*= Total establishments; *MShare*= Market Share; *GrossMarg*= Gross Margin; *EBITDA*= EBITDA Margin; *ROA*= Return of Assets; *Prod*= Employees Productivity.

These linear combinations of the six variables used must maximize the variance between the groups and, at the same time, should minimize it within groups.

$$VAR(D_J) = \bar{b}'T\bar{b} = \bar{b}'E\bar{b} + \bar{b}'D\bar{b} \quad (2);$$

In equation 2, $\bar{b}$, we have the vector of coefficients; T, the *matrix* of total variances and covariance; E, the matrix of variances and covariance among the groups and D, the covariance within groups. The vector of coefficients $\bar{b}$ must maximize the relationship of the variance among the groups regarding the variance within the groups. This quotient is also known as eigenvalue, described in (3):

$$Max\ (autov) = Max\left[\frac{\bar{b}'E\bar{b}}{\bar{b}'D\bar{b}}\right] \quad (3);$$

To evaluate the importance that each variable possesses specifically, in equation (1) we have employed the forward stepwise method in SPSS (table 3), which consists of elaborating sequential models in which an additional variable is included time each time until they stop providing significance and so, once this point is reached, the procedure ends. It should be mentioned that the predictors included are continuously reevaluated, so that if a variable has not enough discriminating power, or is explained by others (meaning that it lacks any specific contribution of its own) it is deleted. Subsequently, these variables that have been included or excluded from the model must be shown for each segment. Forward stepwise method will choose firstly the variable that has the best abilities for explaining the group differences; afterwards, through the step by which the variable has been selected we can ascertain its importance. This

is made by using the global Wilks' Lambda[5] of the model and the F statistic[6] after adding the said variable. Throughout the sequential steps there is verification of how the Lambda goes down, which means that the discriminating power is improved among the groups.

Table 3. Results of the variables selection to the stepwise method.

	FOOD			BEAUTY AND HEALTH			FASHION		
	Steps	Fratio	Wilks´Lambda	Steps	F ratio	Wilks´Lambda	Steps	F ratio	Wilks´Lambda
Tot.Establishments	2	34.24	0.18	1	39.31	0.45	2	30.27	0.16
Market Share%	Elim	Elim	Elim	Elim	Elim	Elim	Elim	Elim	Elim
Gross Margin %	Elim	Elim	Elim	3	3.85	0.24	3	36.52	0.09
EBITDA Margin %	1	13.44	0.34	2	13.72	0.26	4	16.72	0.08
ROA %	3	9.14	0.14	Elim	Elim	Elim	5	10.52	0.05
EBIT/Employee	4	4.67	0.12	Elim	Elim	Elim	1	121.85	0.40

Resource: own elaboration.

In the table above it is easily observable that included-excluded variables change for each industry. *Market Share* is dropped from all the sectors. However, in the case of the food industry the *Gross Margin* is also eliminated. For the health and beauty industry two additional variables do not provide any discriminating value: they are the *ROA* and *EBIT/Employee.* It is not a coincidence on a transversal level of the industries to observe the degree of importance of the proposed variables in equation (1). In the case of the food industry, *EBITDA Margin* is the variable that provides the highest discriminating value, while for the health and beauty industry the same one is relegated to second place, below the *Total of Establishments* and for the fashion industry it decreases in importance down to fourth place, after *EBIT/Employee*, *Total Establishments* and *Gross Margin* variables.

[5] Wilks' Lambda, λ, from table 2, as a difference from individual of table 1, distinguishes the group created after the inclusion of the new variable of each step.

[6] This criteria works in the following way, if the value of F is higher than 3.84 (the critical 0,05 significance), the variable will be included, if not, it will be deleted. However, finally a minimum output value which must be at least 2.71 is required. The F statistic as a function of Wilks λ is measured by the following formula: $\left[\frac{n-g-p}{g-1}\right]\left[\frac{1-\lambda_{p+1}/\lambda_p}{\lambda_{p+1}/\lambda_p}\right]$ where n is the number of elements of the sample, g the number of groups and p the number of exogenous variables. The result gathers the change in the value of λ after the incorporation of every variable in the model. Forward stepwise procedure can introduce those variables which fulfill the requirements of the F statistic and also have the lowest value of the Wilks Lambda statistic. However, if finally it is a minimum level of tolerance, which is defined as $1\text{-}r^2$, r^2 being the determination coefficient of the multiple linear regression, in which the dependent variable is the one that has entered in the final stage and the explanatory ones are those that have entered in previous steps. In this paper the level of tolerance by default using SPSS is 0.001.

4. APPLICATION AND RESULTS OF THE PROPOSED MODEL.

In this research we will use as discriminating scores those obtained from canonical equations and, in second place, through the Fisher discriminating functions. In the first case, this kind of equation shows us the influence that each exogenous variable has in the variability of one group over another, in addition to which groups keep a larger differentiation between them. Table 4 presents the result of two canonical functions. Each one of them explains the differences in the behavior of each pair of groups. The first one will always have a larger eigenvalue (see equation (3)), canonical correlation, or which is the same[7], the proportion of the variation explained by the differences between the groups and the total variation, which is very high in all cases.

Table 4. Canonical functions.

	Food			Health and beauty			Fashion		
Function	Eigenvalue	% of variance	Canonical correlation	Eigenvalue	% of variance	Canonical correlation	Eigenvalue	% of variance	Canonical correlation
1	3.06	75.01	0.87	1.42	65.39	0.77	7.41	86.06	0.94
2	1.02	24.99	0.71	0.75	34.61	0.65	1.20	13.94	0.74

Source: own elaboration.

From the previous analysis we also obtain these coefficients that allow us to appreciate the weight that introduced variables have in the analysis as well as the consequences that each one of them has for the result of the canonical equation. Nevertheless, to make a good interpretation of the coefficient sign and the relationship between the three groups of royalty it is necessary to know the value of the centroids by using the following equation:

$$\overline{D}_j = \alpha + b_{1j} * \overline{Est}_j + b_{2j} * \overline{Mshare}_j + b_{3j} * \overline{GrossMarg}_j + b_{4j} * \overline{EBITDA}_j + b_{5j} * \overline{ROA}_j + b_{6j} * \overline{Prod}_j + \varepsilon \qquad (4)$$

In the LDA each canonical function explains the relationship between the centroids whose distances are maximized. These values are given in table

[7] A more precise definition is the square root of the sum of the square between the groups and the total sum of the square expressed as a quotient $CorrC = \sqrt{\frac{b'Eb}{b'Tb}}$

5. With this method, as in our analysis we have created three groups, two canonical equations have been made. The first function (D1) explains the differences between the high versus low royalty for food, health and beauty, while the second function, (D2) shows the relationship between the medium and low royalty for food, and it compares the score of a medium value relative to a low one for health and beauty. For its part, fashion, (D1) accounts for the behavior of the high versus medium royalty, while (D2) shows the behavior of the medium versus low royalty.

Table 5. Centroids by canonical functions.

	Food		Health and Beauty		Fashion	
	D1	D2	D1	D2	D1	D2
Medium	0.40	-0.79	-0.09	0.80	-0.72	-0.73
High	1.38	1.47	2.60	-0.75	13.80	-0.65
Low	-3.95	0.57	-1.05	-0.96	-0.05	1.57

Source: own elaboration.

It is observable that in the food industry, the centroid of the high royalty group is located in D_1 at the positive extreme, whereas the mean of enterprises with medium royalty is in the center of the interval and finally the sign of a low royalty is negative. In this way we can interpret the rest of values in table 5. The standardized coefficients of canonical discriminating functions are given in table 6.

Table 6. Standardized coefficients of the canonical functions.

	FOOD		HEALTH AND BEAUTY		FASHION	
	D1	D2	D1	D2	D1	D2
Tot.Establishments	0.27	0.98	0.82	-0.59	0.23	1.19
Market Share%	--	--	--	--	--	--
Gross Margin %	--	--	0.28	0.37	1.31	-0.69
EBITDA Margin %	0.67	-0.27	0.38	0.71	-1.56	0.82
ROA %	0.55	-0.15	--	--	1.06	-0.39
EBIT/Employee	-0.14	0.52	--	--	1.90	-0.22

Source: own elaboration.

The function that best separates groups in the three industries analyzed is D_1. Thus, the food industry shows positive in the following coefficients: Total Establishments, EBITDA Margin and ROA, and thus, when each one of these variables increases, it raises the probability of the enterprises belonging to the

high royalty group, On the other hand, EBITDA Margin is the variable in D1 that best explains the differences between the groups because it is the one that has the highest coefficients in absolute terms.

In this research, a confusion matrix has been used in order to determine the descriptive model´s goodness of fit. This matrix compares the real classification, which was elaborated using cluster technique, and the one obtained by the linear discriminating function, using this way to check the number of goals that were achieved in each one of the analyzed industries. As is observable in table 7 this number is very high, because it is up to 96.5% for the case of the food industry, 89.2% for the health and beauty industry and, finally 96.5% for the fashion industry. The mechanism of classification for each individual location depends on the odds of Bayes Theorem[8].

Table 7. Confusion matrix

			Predicted group membership			
Food			Medium 5	Low 4	High 6	Total
Original	Count	Medium	43	0	0	43
		Low	1	10	0	11
		High	2	0	17	19
	Classifies well 95.9 of the cases	Medium	100.0	0.0	0.0	100.0
		Low	9.1	90.9	0.0	100.0
		High	10.5	0.0	89.5	100.0
beauty			Predicted group membership			
			Medium 5	High 6	Low 3	Total
Original	Count	Medium	36	0	3	39
		High	2	8	1	11
		Low	2	0	22	24
	Classifies well 89.2% of the cases	Medium	92.3	0.0	7.7	100.0
		High	18.2	72.7	9.1	100.0
		Low	8.3	0.0	91.7	100.0
Fashion			Predicted group membership			
			Low 2	High 4	Medium 3	Total
Original	Count	Low	16	0	2	18
		High	0	2	0	2
		Medium	0	0	37	37
	Classifies well 96.5% of the cases	Low	88.9	0.0	11.1	100.0
		High	0.0	100.0	0.0	100.0
		Medium	0.0	0.0	100.0	100.0

Source: own elaboration.

[8] The probability of belonging to a group given a specific discriminating punctuation $P(g_k/d_i)$ $=\frac{P\left(d_i/g_k\right)*\mathrm{p(g_k)}}{\sum_{i=1}^{g} P\left(d_i/g_k\right)*\mathrm{p(g_k)}}$; $\mathrm{p(g_k)}$ is the prior probability of each group and $P\left(d_i/g_k\right)$ is the probability that a punctuation $\mathrm{d_i}$ belongs to a group $\mathrm{g_k}$.

Another way of measuring allocation scores for each group is through Fisher equations. Both methods lead to the same classification. However using a Fisher equation helps to determine the brand strength, which was described in detail in the second section of this paper and was widely used in all the models for brand valuation. To provide an example, the Fisher equations for the food industry are in table 8:

Table 8. Coefficients of Fisher linear discriminating functions.

	Medium Royalty 5	Low Royalty 4	Hlgh Royalty 6
Total Establishments	.005	.007	.044
ROA	-.005	-.174	.007
EBITDA Margin %	.012	-.134	.014
EBIT/Employee	.000	.008	.006
(Constant)	-1.172	-10.851	-4.935

Source: own elaboration.

Three equations are measured: F_1 which represents the medium royalty, F_2 for the low royalty and F_3 explains the higher royalty.

$$F_1 = -1{,}17 + 0{,}005 * Est + 0{,}012 * EBITDA - 0{,}005 * ROA + 0{,}00 * \Pr od + \varepsilon \quad (6)$$

$$F_2 = -10{,}851 + 0{,}007 * Est - 0{,}134 * EBITDA - 0{,}174 * ROA + 0{,}008 * \Pr od + \varepsilon \quad (7)$$

$$F_3 = -4{,}935 + 0{,}044 * Est + 0{,}014 * EBITDA + 0{,}007 * ROA + 0{,}006 * \Pr od + \varepsilon \quad (8)$$

From the above equations, a P_r (g/F) probability can be calculated, in other words, if a company obtains a discriminating score F, then it will belong to g group. From (Uriel 1996) the following formula (the result of which coincides with Bayes rule considering the priori probabilities of groups as equal), may be applied:

$$\Pr(g/F) = \frac{e^{Fg}}{e^{F_1} + e^{F_2} + e^{F_3}} \quad (9)$$

Therefore, if a company i has, for example, 201 *Establishments*, an *EBIT/Employee* equal to 17.04 (in thousands of monetary units), *ROA* equal to 14.03%, an *EBITDA Margin* of 18.48%, then F_1=-0.24, F_2= -9.38 and F_3= 3.95. Consequently, applying (9), Pr(1/F)=0.015, Pr(2/F)=0, Pr(3/F)=0.985. Then it

could be predicted that this company belongs to the third group, or high royalty, because this is most likely, obtaining at the same time a score F_3= 3.95, the larger of the three expressed above. In this way, a shortlist of three values P_{ij}= (P_{i1}, P_{i2}, P_{i3}) would be assigned for each company, P_{ij} being the probability of a company i belonging to the group j.

$$X = (F_{ij}/P_{ij} = max_{j=1,2,3,}\{P_{ij}\}) \quad (10)$$

Thus X is the Fisher score vector which is the result of the probability of each company pertaining to the most likely cluster. In order to determine the companies' brand strength, once the previous vector had been measured, it must be divided into deciles. The fifth and tenth decile corresponds to the low royalty cluster. The twentieth decile contains two elements which have obtained the highest score in the low royalty group and the rest are those that have obtained the lowest scores in the medium royalty cluster. For its part, the thirtieth, fiftieth and seventieth deciles include the remaining companies of the medium cluster with successively larger scores and finally, the eightieth, ninetieth and ninety-fifth deciles have been set up using these companies that have been classified as high royalty. Each decile, $F(x)$, represents the cumulative probability of these scores. So $F(x)$, or Brand strength will collect, through a score from 0 to 100, the level or strength with which the attributes or independent variables of any company in the sector adds value with respect to the whole sample, as it is shown in table 9.

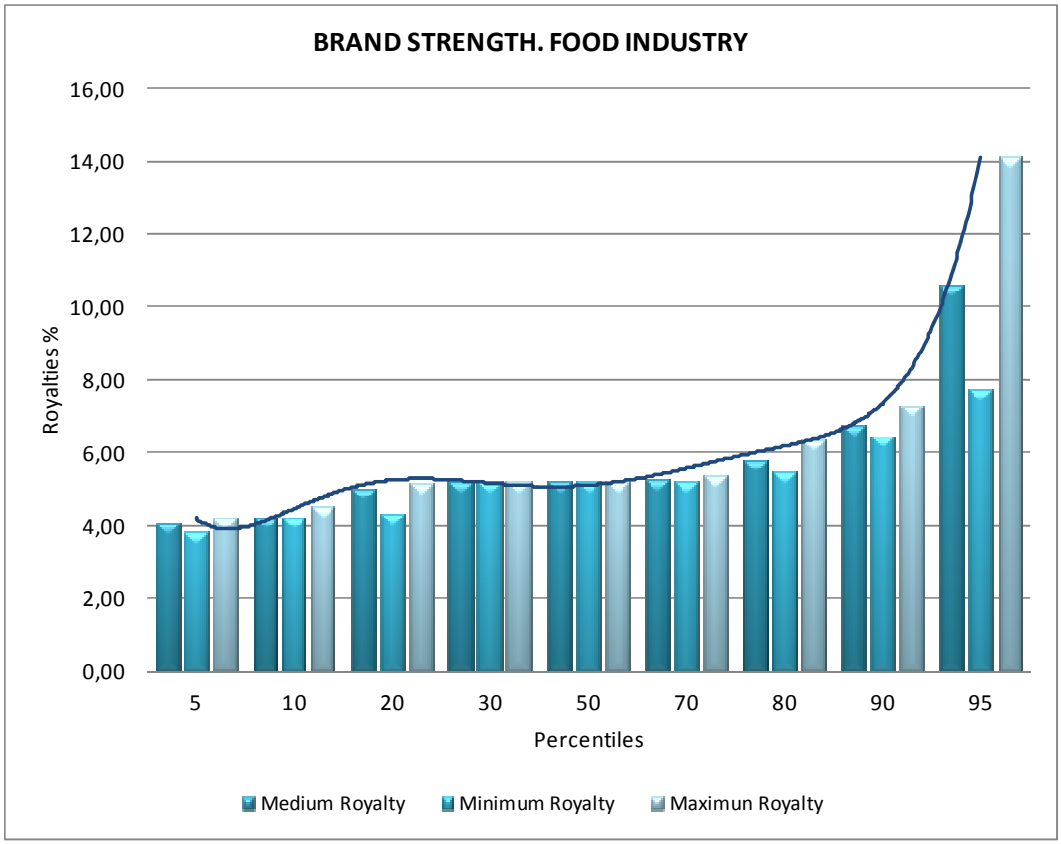
Table 9. Brand strength expressed as a function of deciles.

	Deciles for 73 elements. Food Industry								
	5	10	20	30	50	70	80	90	95
Average Xij decile	-11.05	-10.74	-3.46	-1.15	-1.11	-0.98	0.11	1.94	10.43
Maximum Xij decile	-10.83	-10.70	-1.15	-1.14	-1.07	-0.78	1.18	3.05	18.23
Minimum Xij decile	-11.62	-10.82	-10.54	-1.15	-1.15	-1.07	-0.56	1.32	3.95
Average royalty decile	4.07	4.23	4.98	5.18	5.20	5.26	5.81	6.72	10.59
Maximum royalty decile	4.18	4.49	5.17	5.18	5.22	5.36	6.34	7.28	14.12
Minimum royalty decile	3.79	4.19	4.33	5.17	5.18	5.22	5.47	6.41	7.73
Fisher average cluster	-10.79			-1.07			2.97		
Royalty average cluster	4.20			5.21			6.50		

Source: own elaboration.

In our example, in addition to putting the new company i within the high royalty cluster, as was indicated before, the strength of its brand against other competitors would be between 90 and 95 deciles because its score was 3.91, closer to 95 than to 90. Finally, based on the strengths the royalty rate can be determined that would correspond to charge. It would be between the maximum decile 90, 7.28% and minimum decile 95, 7.73%. Once the range of implicit royalty is enclosed the value of the brand may be determined, as is described in section 2.

Figure 5. Percentiles and Brand strength.



Source: own elaboration.

The results shown in table 9 and in figure 5 are very useful because they allow us to establish a hierarchy between companies according to the value of each discriminating score and the corresponding cumulative probability or brand strength. Thus it is possible to compare different companies in the same sector regardless of the group or cluster to which they belong, and thus their overall position is determined in the market against other competitors.

5. CONCLUSIONS AND FINAL REMARKS.

From the described statistical methods: cluster technique and LDA, we have developed a model to determine the implicit royalty for buying or using a brand or a corporate image. On the one hand, this study is vital for companies which want to expand through franchises, but, on the other hand, it also allows us to determine the flow corresponding to a certain brand in order to ascertain its value. However, in section 2 the complete methodology is indicated to value a brand, once that the royalty has been determined. This process is not developed in this article and it will be part of future works and lines of research.

Other statistical techniques, such as discriminant and multinomial logit models, have been widely analyzed in marketing studies, as in Perreault et al (1979), Kamakura and Russell (1993) or Swait et al (1993), but only from the point of view of the analysis that certain features confer to the product or to the buyers in order to increase its usefulness for the consumer and, accordingly, to achieve the best position in the market. The discriminant analysis has also been used from the middle of the last century to solve other financial problems, such as the prediction of bankruptcies, as in Altman (1968). However, the suitability of the LDA for this purpose has never been proved, despite authors like Nomen (2005) or Torres and Coronas (2002) warn of the flaws of the royalty methodology and the necessity of including statistical techniques.

After being implemented, the model turns out to be efficient in all five proposed aspects. Firstly, cluster technique proves to be useful for segmenting the companies according to the royalties paid and the other financial variables used (see table 1 and figure 4). Secondly, the used exogenous financial and accounting variables generate enough discriminating power to explain the different groups of royalties which are collected in a certain industry (see table 3). Although authors like Lev (1989, 2000, 2005), Brown et al (1999), Dantoh et al (2004) Iñiguez and López (2006) or Rubio et al (2013), among others, demonstrate the ineffectiveness of accounting variables to explain the value of intangibles developed by companies, is not for the specific case of the brand. This is not surprising since other qualitative variables (leadership, stability, support or image, among other) when creating a value must be expressed in terms of improvements of the balance's variables and of the companies' income

statement, such as: market share, sales, margins and, ultimately, an increased structural profitability. Thirdly, the canonical equations have proved to be a very useful tool to explain how exogenous variables generate value for the creation of brands, although the procedure and their importance are different depending on the industry, as shown in tables 5 and 6. Fourthly, this technique suitably predicts the group to which a new company belongs for all the addressed industries (see table 7) and, lastly, using the scores obtained with the equations of Fisher, a ranking of the companies can be created to determine the brand strengths, which is confirmed by their market positioning with respect to other competitors, as set out in table 9 and figure 5.

It is important to emphasize that the quantification and valuation of the intangible assets owned by the companies are still a challenge for economic science. Thus, despite the existence of several valuation models, they are usually immersed in great doses of subjectivity or their developments even lack the proper mathematical and statistical techniques. This fact does not allow the existence of an agreement for its general acceptance. However, on the one hand, the proposed model works with quantitative variables which were made public through the annual accounts filed at the Mercantile Registry. This involves using as a base for the calculation standardized criteria that are generally accepted in comparison with other possible qualitative variables whose elaboration changes according to how or by whom it was made. Furthermore, the royalties paid in the Spanish franchise market were taken, as advised by financial accounting standards.

The proposed model could be used in the future to predict brand value for other companies and industries if it has databases similar to those generated in this work. Another application might be to check the efficiency of the proposed model with other qualitative and quantitative data, analyzed correlations between variables, across different markets and products, and check which provide more information to generate the royalty paid.

It is also a comparable market method. Consequently, the proposed technique becomes an optimal way to determine the value that an independent buyer would be willing to pay for using a brand, from another with similar features. The analysis discussed here can be considered as a market technique and therefore it also serves as a complementary method for other models which

try to find an internal perspective of the generation of value of the intangibles within the company, like the method of excess of benefits in multiple periods or even the one concerning real options. The use of several complementary models in a valuation process can ensure that there are no biases or subjectivities and also that it includes the different points of view that any assessment process should emphasize, especially the valuation of an intangible asset that is as representative in the modern economy as the brand.

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ANNEX 1.1. FRANCHISING COMPANIES. FOOD INDUSTRY.

AKRA FRÍO, S.L.
ALADA 1850, S.L.
ALMA DE CACAO
ARROCERÍAS DE ALICANTE, S.L.U.
ARROCERÍAS DE ALICANTE, S.L.U.
AZEITE E VINAGRE, LDA.
BAÑOS GARRE, S.L.
BEER & FOOD GRUPO DE RESTAURACIÓN
BEIRUT KING S.L.
BIERWINKEL, S.L.
BODEGAS GALIANA ALIMENTACIÓN, S.L.
BRASERÍA LOS DUENDES S.L.
BRUSTERS RESTAURANTES 2010, SL
BURGER KING ESPAÑA, S.L.U
BURGER RICKY
CAFÉ DEL MERCADO FRANQUICIAS, S.L.
CAFÉS CANDELAS SL
CENTRAL DE FRANQUICIAS PANTAIBERIC
CHOCOLATES VALOR, S.A.
CIA. DALLAS RIB´S, S.A.
COFFEE & FOODS
COMESS GROUP DE RESTAURACIÓN
COMESS GROUP DE RESTAURACIÓN, S.L.
COMESS GROUP DE RESTAURACIÓN, S.L.
COMESS GROUP DE RESTAURACIÓN, S.L.
COREN GRILL, S.A
DEHESA SANTA MARIA FRANQUICIAS S.L.
DIABLITO FRANCHISING, S.L.
DISTRIB. ALIMENT. SURESTE SAU
DON ULPIANO FRANQUICIAS S.L
DOOPIES & COFFEE, SL
DRUNKEN DUCK FOOD, S.L.
DUNKIN ESPAÑOLA S.A
EL MOLÍ VELL
EURO TAPASBAR, S.A.
EXPANSIÓN DE FRANQUICIAS, S.L.
EXPANSIÓN DE FRANQUICIAS, S.L.
FABORIT COFFEE SHOP, S.L.
FOOD SERVICE PROJECT, S.L.
FRANCHISINGS KURZ & GUT, S.L
FRANQUICIAS LA PIEMONTESA SLU
FRANQUIPAN, S.L.
FRIENDS & MOJITOS S.L
GINOS FRANCHISING, S.L.
GRAN PALADAR SL
GREEN DEVELOPPEMENT
GRUPO ALASKA
GRUPO RESTALIA
GRUPO ZENA DE RESTAURACIÓN, S.A.
GRUPO ZENA DE RESTAURANTES S.A.
HOSTELOESTE, S.L.U.
ILOPEZHIDALGOA

INVERSIONES VENESPOR, S.A.
INVESANVEL, SL
JUNIO 1972 RESTAURACIÓN, S.L.
KANIKAMA PROJECT, SL
KRUNCH FRANCHISING, S.L.
L.N.F. FRANCHISING S.L.U.
LA BOHEME
LA CUEVA 1900
LA SUREÑA
LACREM, S.A.
LLOGUECATA, S.L.
LOS BODEGONES
MAC PAPAS, S.L.
MATERASTURIAS, S.L.
MIGUEL SANCHO S.L
MY CREPE, SL
O REI DAS TARTAS
ODRE Y HOGAZA, S.L.
OPEN 25
OVERPANI FRANQUICIAS, S.L
PANA-ROM S.L
PANSFOOD, S.A. (THE EAT OUT GROUP, S. L.)
PARSIN´S, S.L
PASTIFICIO SERVICE, S.L.
PECADITOS
PIZZA LEGGERA WORLDWIDE
PIZZA MARZANO, S.A.
POLLO CAPORAL FRANQUICIAS, S.L.
RAMÓN Y VIDAL, S.L.
RECREATIVOS TORNAJUELO
RESENDE, S.L.
RESTAURANTES BRUNO, S.L
RIGARUSSO ASOCIADOS, S.L.
RODILLA SÁNCHEZ, S.L.
SAFO MEDITERRÁNEA, S.A.
SAMORVARTE Y CAFÉ, S.L.
SDAR SRL
SERVIFRUIT GOMAB S.L.
SPORTS FRANCHISING, S.L.
STICKHOYSE BCN, SL
TELEPIZZA, S.A
TERRA VITAE, SL
THE EAT OUT GROUP, S.L. (BOCATTA 2000, S.L)
UNIDE
URBAN LIFE FOOD COURT
VINUS BRINDIS S.L.
YUM RESTAURANTS ESPAÑA
ZUMO BAR CANARIAS S.L.

ANNEX 1.2. HEALTH AND BEAUTY INDUSTRY.

ABANOLIA
ACORDE PLUS, S.L
ACR WAX COSMETICS, S.L.
ACR WAXCOSMETICS, S.L.
ACTUAL STHETIC, SL
ALDABE S.A.
ALDABE, S.A.
ALDABE, S.A.
ALTA ESTÉTICA SL
ASOCIADOS LLONGUERAS
BE STHETIC
BEN&SULY S.L
BENESSERE FITNESS PILATES NUTRICIÓN.
BENZAQUEN2,S.L
BODY FACTORY FRANQUICIAS, S.L.
BYE BYE PELOS, SL
C&C CASANOVA S.A.
CEBADO, S.A
CEFOGA 2000, S.L.
CELLULEM BLOCK
CENTROS DESESTRES, S.A
CENTROS PULSAZIONE INTERNACIONAL, SL
CLÍNICA SACHER – MEDICINA ESTÉTICA.
CLÍNICAS CAREDENT, S.L.
CLÍNICAS CETA S.L.
CLINICAS PODOLOGICAS
CLÍNICAS VIRGEN DE LA PAZ S.L
COMPAÑÍA DE SERVICIOS MÉDICOS AMENTA S.L.
CONTIFARMA, S.L.
CONTOURS EXPRESS IBÉRICA S.L
COVALDROPER GRUPO
CUERPOS FITT
CURVES INTERNATIONAL OF SPAIN, S.A.
D ELITE EVENT PLANNERS SL
DENTALIS
DEPICOOL
DEPILINE WAX & COSMETICS S.L.
DORSIA CENTRAL DE COMPRAS, SL
ECOLOGIC BY LINDA NICOLAU, S.L.
ELIMINA EL VELLO
EPILAE NORTE, S.L.
ESTETICA Y SALUD MASCULINA S.L.
ESTETICBODY
ETHIA CENTROS MÉDICO ESTÉTICOS
EXTENSIONMANIA
FITNESS19
FK ESTETICA INFANTIL S.L.
FRANCK PROVOST
GIRÓN & NAVARRO INTERNACIONAL
GLOMONT S.L
GRUPO ACTUAL ESTHETIC - BIOTHECARE ESTETIKA
GRUPO EMPRESARIAL MEDITERRÁNEA DE MEDICINA Y ESTÉTICA SL
INSTITUTO SUPERIOR DE ESTUDIOS PSICOLÓGICOS (ISEP)
JEAN LOUIS DAVID FRANCHISE SPAIN, SL
JUAN ALBERTO RECIO S.A.
KAROON PILATES S.L.
LABORATORIO LUCAS NICOLÁS, S.L
LASER NATURA
LEBRON FRANQUICIAS
LIPOTHERM CENTER
LOGIC MEN
MÉTODOS MASSANA, S.L.
METRODERMO, S.L.
MH FITNESS FEMENINO
MONDARIZ SPA S.L.
MÜLLER MARKETING GMBH.
MULTIFRAN SPAIN S.L.
NEGREVERNIS S.L.
NEOGYM CENTER VALENCIA SLU
NI UNO +
NO MÁS DIETAS SL
NOMASVELLO, SL
NOW YOU ENTRENAMIENTO
NUEVAS LATITUDES S.L,
OH MY CUT!
PELLBELLADEPILAT
R-DIFUSIÓN, S.L.
RUHAM CONCEPT 2011, SL
SALUD CORPORAL S.L.
SANTS INSTITUT GROUP
SENTRALGES S.L
SERVICIOS DE DEPILACIÓN BLOC, S.L
SEVEN SECREETS
SISOL SYSTEM, S.A.
SISTEMA FORMADOR CONSTRUCTORES DE EXITO SL
SLIM BALANCE, S.L.
SOC. DE GESTIÓN DE SIEMPRESOL S.L.
SOLIVISE PROTOCOLOS DE ESTÉTICA AVANZADA, S.L.
SOLMANÍA S.L.
SPA ZENCER ESTHETIC & CULTURE, SL
SPEJOS DIFUSIÓN, S.L.
TENDENCIES LONDON, S.L.
TERSUS CUIDADO Y BELLEZA
THERAPYFISH-SPA, C.B.
TORNEMHI INTEGRAL, S.L
UÑAS 10
UP NAILS, SL
VILLACASTÍN MED, S.L.
VIVAFIT
WOMAN 30, SL
WSI RETIRO, S.L.
YNSADIET, S.A.
ZELOS COSMETICS S.L.

ANNEX. 1.3. FASHION INDUSTRY.

ARZANO, S.L.
CALDERÓN FRANQUICIAS, S.L.
CÁLLATE LA BOCA
CHAQUE S.A.
CHICCO ESPAÑOLA, S.A.
CITY FINANCE 2011, SL
CRYSANNA COLLECTION, S.L
CUPPERTON DEVELOPS S.L.
DISTRIBUCIONES INTERNACIONALES M.ERCILLA, S.L
DIVINA PROVIDENCIA
DM2 ESTILO MODA S.L.
EIGHTEEN OCTOBER 2001, S.L.
EMERGENCIA PERMANENTE, S.L.
EMERGENCIA PERMANENTE, S.L.
EMPORIO FRANCHISING
EVA ALFARO
FERNANDEZ-MATAMOROS MAS-SARDA JOSÉ MARÍA S.L.N.E
FRANDESIM, S.L.
FRANQUICIA LAS LILAS S.L.
GLOBAL DE PRODUCTOS ONLINE S.L
GOLD SYSTEM MERCADO, SL
GROUPE ZANNIER ESPAÑA S.A
GRUPO LOVE STORE, S.A.
GRUPO OSBORNE S.A.
GRUPO ROSA CLARÁ
GUBESA CO, S.L
IKKS SPORTSWEAR SPAIN
INDUSTRIA FRANCO ESPAÑOLA DE MODA, S.A
INTERMALLA, S.L.
JONAS 3000,S.L
JORDI ANGUERA ESPAI I COSTURA SL
JULIO MAESTRE, S.L.
KARPI CONFECCIÓN, S.L.
KIABI ESPAÑA - KSCE, S.A.
LA COMPAGNIE DES PETITS
LA NÁUTICA SERVICIOS NÁUTICOS, SL
LA POUNTY S.L.
LA TIENDA DE LOLÍN FRANQUICIAS, S.L.
LAPEGAL ARTE LEÓN S.L. BULKA
LOURIDO Y REAL S.L.
LUXENTER SHOPS
MACSONSA
MARFA TESSILE, S.L.
MEIGALLO
MIROGLIO ESPAÑA, S.A.U.
NECK CHILD S.A
OPI PRENDAS INFANTILES ORCHESTRA S.L.
PASARELA CLM S.L.
PATRIC SPORT, S.L.
PATRICKS S.A
PIEL DE TORO
PILI CARRERA, S.A.
PLATAX ORFEBRES, S.L.
POETE S.L.
RECSTORE
SELCONET, S.A.
STAR TEXTIL, SA
SUPERDRY
SUX TRIT, S.L.
TEXTIL TEXTURA, S.L.
THIS WEEK
VARLION ESPAÑA S.L.
WOLFORD ESPAÑA, S.L.