Analysis of efficiency and profitability of franchise services

Abstract

The present study analyses the relative efficiency of franchise services and characterises the best companies, confirming the relationship between efficiency and profit. These companies are from "the trade and other services sector", the main group of service- providing companies in the Spanish economy. The methodology calls for first comparing the relative efficiency of franchisers and ownership enterprises. Second, the focus turns to the most efficient franchise services, using a super-efficiency model to rank them. The paper then goes on to cover the analysis of the main characteristics of the best franchise enterprises, the number of own establishments in a franchise business, and the profitability of the company. This paper presents arguments as to why companies from the trade and other services sector are included. The main conclusion is that, whilst the number of establishments is irrelevant in achieving greater efficiency, many of the most efficient enterprises have high returns.

Keywords: Franchises, profitability, efficiency, super-efficiency, performance.

Introduction

There is no single definition of franchising (Altinay and Miles, 2006; Mendelshon, 2004) but maybe one of the most concise and comprehensive definitions is given by the International Franchise Association (IFA). According to IFA "a franchise operation is a contractual relationship between the franchisor and franchisee in which the franchisor offers or is obliged to maintain a continuous interest in the business of the franchisee in such areas as know-how and training; wherein the franchisee operates under a common trade name, format and/or a procedure owned or controlled by the franchisor and in which the franchisee has or will make a substantial capital investment in his business from his own resources".

Currently this type of relation is a common procedure for growth in certain businesses. Firms which own a well-known brand and want to introduce it to new markets consider different options (Baena and Cervino, 2012): from the mere export of the product, joint venture or business acquisition or signing agreements with businesses already positioned abroad. In this latter case, franchising is a solution to the need to expand and adapt to new markets (e. g., countries like China where investments of 100% foreign capital are not permitted; Baena and Cervino, 2012). Other factors, like the persistence of the economic crisis in many countries, attached

to a general decline in bank financing for new projects, have also accelerated the search for better business opportunities, favouring the development of franchising.

Internationally, the Spanish economy is a prime, reliable example of an economy with franchises that have a physical presence on all five continents. In Spain, 15% of franchises have operations abroad in order to continue increasing sale rates, particularly during the current economic crisis. In figures, (Navarro-Garcia, A., 2012) Spanish franchising activity has also increased its international presence significantly, with a presence in 113 countries and 15,194 foreign premises in 2011. The latter figure represents an increase of 21.7% on the previous period, and these trends are set to continue in the future.

This evolution in the franchise system as a mechanism for business expansion has been analysed and explained by academic and professional studies. Many of the studies examine how franchising can minimise transaction or agency costs, (Barthélemy, 2008; Combs et al., 2004; Vazquez, 2008) or, among other aspects, how it can be a valid instrument for coping with lack of financial resources or management skills (Combs and Ketchen, 1999; Shane et al., 2006). As Coase (1937) notes, a firm's decision to externalise or internalise with franchising or ownership is a core issue for economics and organisational theorists.

Franchising offers advantages in terms of the facilities provided by the franchisor or owner of the brand: support with choosing the site for the new business or technical orientation and business guidance for developing the object of the franchise; or the advantages for the franchisee of the corporate image or use of a recognised brand. These advantages are important for businesses that market products or sell services, although for the owner of the brand (or franchisor), customer-related franchising activities are vitally important when they involve selling services. In this case the idiosyncratic aspects of the culture and customs in a country or certain locality can be resolved better in a franchise by native franchisees, as emerges from the theory of standardisation or adaptation of products or services in different markets. (Morschett, 2006; Nasir and Altinbasak, 2009). The sales service of products is, in general, more standardised and less idiosyncratic, reducing the importance of specific knowledge of the individual franchisee".

This issue and other aspects related to competition in services, (Ethiraj, Kale, Krishnan and Singh, 2005; Nickerson, Hamilton and Wada, 2001) which may be very important for researching differences between franchises that market products and offer services, are not dealt with in this research. Instead, the current approach is to compare the scale of the franchise according to the number of franchised and unfranchised units with efficiency, and then compare efficiency with profitability.

Finally we discuss aspects of franchise theory where no distinction is made between trade or service activities. In this context, we verify whether the businesses selected for the franchise sample are more efficient than other comparable firms that have retained ownership of their activities; and secondly, based on the efficiency ranking for the franchises, we compare as already mentioned, efficiency and profitability.

Furthermore, justification of the existence of franchises also lies in these businesses' greater efficiency compared with proprietary commercial or service activities (Krueger, 1991; Hoffman y Preble, 1994), although Anderson (1984) does not consider these differences to be significant; similarly Stern, et al. (1999) justify the existence of franchises due to lower risk whereas Stanworth, et al. (1998) disagree. Thus the reasons that lead a firm to act independently or as part of a franchise is still an open question.

This paper analyses the efficiency of franchisers and ownership enterprises in the largest activity sector in Spain, trade and other services sector, using Data Envelopment Analysis (DEA). The article is of interest because the studied companies (trade and services) come from an economic set of enterprises that is quantitatively important in Spain and globally, and because it contributes to the theory on the franchising or ownership decision and to the study of the relationships between efficiency and profitability.

The paper has the following structure. First, the literature review helps establish the theoretical framework for this research. The second section then contains a description of the data and methodology. Afterwards, the paper presents the analysis of the efficiency of the services franchises versus the selected control companies, describing the variables used as inputs and outputs in the analysis. The subsequent section then covers the application of some models to study the relative and super-efficiency of the franchise enterprises, and determine the main characteristic of super-efficient enterprises. Finally, the last section brings together the study's general conclusions.

Theoretical framework

A fundamental decision for any firm, affecting its efficiency and long-term survival, is the way it establishes contractual relationships and control. One of the core issues in this area is whether production or the services a firm requires or provides (or the units that obtain or supply them) belong to the company or have been outsourced. A franchise agreement is a particular case of externalisation through contractual agreements.

Franchising company literature examines many aspects of franchising, all closely related to efficiency and productivity: franchising as a strategy to attract partners and

increase the size and scale of production (Shane et al., 2006); to attract partners to invest in the outlets and thus avoid capital shortages (Combs and Ketchen, 1999); to select franchisees with favourable disposition and desirable characteristics that lower the agency costs (Saraogi, 2009); the franchise as a way of adapting to local taste or as a business format able to develop policies that favour all stakeholders (Meisenberg and Ehrmann, 2012) or as a means of facilitating entry to other markets or other countries (Combs and Ketchen, 1999).

The literature also examines the survival or death rate of franchises according to their institutional legitimacy (Shane and Foo, 1999) and other institutional aspects (Combs et al., 2009).

According to some authors, contracts that ensure greater hierarchical control for the franchisor are more efficient (Chaudey and Fadairo, 2008, 2010), whereas others consider that greater autonomy for franchisees can be compensated by better recruitment (Saraogi, 2009), by establishing governance mechanisms other than control (Cochet et al., 2008), or by contracts with a soft part (not strictly formal agreements) that delivers satisfactory performance and corporate efficiency (Peris-Ortiz et al., 2012).

Furthermore, the externalisation or internalisation decision, to own or franchise the activities and outlets can sometimes involve, in the case of franchisors, a sophisticated

combination of internalised and externalised outlets leading to greater efficiency for the franchisor company (Kidwell and Nygaard, 2011; Perryman and Combs, 2012; Vázquez, 2007).

Finally, concerning the relationship between efficiency and profitability in the empirical study, in some "growth oriented entrepreneurs the desire to reach strategic growth goals might require less than optimal organisational efficiency, at least in the short term" (Perryman and Combs, 2012: 375). That is, policies that orient a company towards achieving market position and making a profit may not coincide with policies that seek greater efficiency.

In our research we intend to examine this issue to progress in the study of franchise efficiency using DEA methodology and one of its extensions, super-efficiency analysis.

Data and research methodology.

As already mentioned various studies have concluded that franchising is a more efficient form of organisation than own units. If this is true, we should observe significantly different behaviour between units where the only difference is that of being a franchise or not. As in many markets the Spanish franchise covers many different sectors (fashion, furniture and home decor, hotels and restaurants, travel

agencies, food, hotels, transportation, etc) many of them belong to a key sector differentiating modern developed economies, the service sector. Therefore, in pursuit of our objective, we selected franchises belonging to the trade and other services sector. According to the Spanish National Statistics Institute (Annual Trade Survey, 2011), there are over 2.5 million companies in the trade and other services sector, involved in more than twenty areas of economic activity (travel agencies, hotels and restaurants, fashion and transport among others). The sector has over 8 million employees and a turnover of 1,073,533 million Euros in 2011. These data show the relevance of these activities in Spain.

All the data in this study come from the SABI database. This database gathers annual accounts and complementary financial information from over 550,000 Spanish companies not including financial enterprises or insurance companies.

The efficiency of franchise enterprises in the main franchising services sector in Spain—wholesale trade, trade intermediaries, and retail trade (except motor vehicles and motorbikes)—is assessed using DEA methodology. We chose this sector from the 2009 National Classification of Economic Activities (CNAE), which identifies companies in the same sector by assigning a common code. This sector contains a significant volume of enterprises that are very important for the Spanish economy, such as "Carrefour, SA", "Merkamueble Europa, SA", "Grupo Massimo Dutti SA",

and "Bershka BSK España SA". Although these companies engage in services, providing products or goods, important companies also operate in trading services. Examples of such companies include: "Canal Ocio Europa", dedicated to export, import and distribution of films and video games; "The Bymovil Spain SL", dedicated to the study and programming of mechanical and electronic equipment; and "Eurosystem Ofimatica SL", which offers computer services to companies.

The empirical study first aims to determine whether franchises are more efficient for resource management than other comparable enterprises. To determine relative efficiency, we analyse the selected franchise enterprises together with a sample of non-franchise enterprises or control enterprises. These control enterprises are a good reference for the study because they belong to the same economic sector as the franchise enterprises, the same location and have a similar dimension. The control sample was chosen based on the CNAE classification.

Secondly, after analysing the efficiency of franchise enterprises versus the control enterprises, we analyse the relative efficiency of franchise services. Once the comparative is made, the study goes on with the aim of determine the level of efficiency of the franchise enterprises in the study, the ranking of the efficient companies and the characteristics than make one franchise enterprise more efficient

than others. For this purpose, we only analyse franchise enterprises that made a profit in 2009.

Accounting ratios provide a broad measure of efficiency, but now there are alternative models for analysing the technical efficiency of a group of units in a more complex and real context. DEA methodology (or Data Envelopment Analysis), proposed initially by Charnes et al. (1978), is based on lineal programming that allows to evaluate the relative efficiency and the productivity of a group of organisations or individuals, generally known as DMUs, by comparing inputs and outputs with all the other DMUs.

DEA methodology has been widely applied in a large number of articles with theoretical extensions and many different applications (Emrouznejad et al., 2008 presents a good survey of these papers).

In the franchise context, some authors have applied other methodologies for studying the efficiency of franchise companies. For instance, De Jonghe and Vander (2008), introduce a modified Tobin's Q ratio to measure European banks franchise value and their efficiency; and Tan et al. (2010), investigate the properties of Pareto-efficient in the private provision of public roads through build–operate-transfer contracts using a bi-objective programming approach under perfect information.

Despite the above, most studies of franchising efficiency use DEA techniques. For example, Tsaur (2000) measures the relative efficiency of international tourist hotels in Taiwan; Anderson et al. (2000) analyse hotel efficiency using DEA methodology and another stochastic frontier technique in a sample of 48 hotels in USA; Chiu et al (2008) applies a BCC model to evaluate a bank's technical efficiency in Taiwan; Hwang and Chang (2003) evaluate the efficiency of management of a hotel chain in Taiwan; Roh and Choi (2010) study efficiency between multiple brands in a restaurant franchising chain operating in the Pacific Rim; and Pulina et al. (2010) analyse the relationship between size and efficiency in the Italian hospitality sector.

Many papers compare the efficiency of franchised companies versus non-franchised units and Anderson et al. (1998) and Yoo et al. (1998) underline the power of DEA methods in comparing franchised and non-franchised units. Anderson et al. (1998) apply DEA methodology to compare efficiency between a sample of unaffiliated real estate brokerage firms and a group of affiliated enterprises and Yoo et al. (1998) analyse the superiority of franchised companies in the refreshment place industry. As other examples, Botti et al. (2009) analyses efficiency with DEA models of franchises versus other organisational forms in French hotel chains; and Perrigot et al. (2009) compare performance and efficiency between plural form chains (chains with

franchised hotels and company-owned hotels) and some mostly franchised hotel chains in the French market.

Despite the wide application of DEA methods to franchise efficiency analysis, there are only a few investigations in a Spanish context. For instance, Giménez et al. (2007) uses a three-step DEA to reallocate resources in restaurant locations belonging to a Spanish fast-food chain; Alonso de Magdaleno et al. (2009) looks at whether the contractual forms of hotel chains influence efficiency, focusing on the Melia Hotel.

Although a previous investigation (Garcia et al., 2012) analyses the relative efficiency of franchise firms in different sectors using a non-concave metafrontier model based on DEA methodology, in this paper we propose a different analysis applied to the enterprise framework in Spain. Concretely, we focus the study on the relative efficiency analysis and super-efficiency of the trade and other services sector, which is the main set of franchising enterprises as described previously.

Efficiency analysis of franchise services versus control companies

The first aim of our study is to evaluate if franchise companies are more efficient than similar companies in the same sector. For this purpose, we selected 143 franchises in the trade and other services sector in Spain (except for motor vehicles and motorbikes). Most of these companies engage in services, providing products or goods such as furniture, fashion, nourishment, and the like, but the sample also

contains 23 companies (16% of the sample) that offer trading services such as business consulting, or computers and electronic equipment programming. We have chosen only the companies where information for the analysis was available and no errors in the data were detected.

To compare the efficiency of these companies with other similar ownership enterprises, we chose a control sample with the same number of companies 143, in a similar geographical location, registered in the same sector (identified by the same activity codes) as the selected franchises.

Efficiency focuses on the relationship between inputs and outputs of the analysed companies. In the DEA application, the input and output selection is one of the weak aspects of the analysis due to its subjectivity. Therefore, the analyst must choose input and output variables that are representative of the resources and objectives of the companies in the sample.

This study uses five input variables: tangible fixed assets, intangible assets, the total volume of own resources, total liabilities and labour costs for the 2009 financial year. With these results the enterprises must achieve some results or outputs in DEA methodology. We chose sales and returns before interest and tax as the most representative variables.

These measures are good indicators of financial efficiency and some of them appear as inputs or outputs in the DEA literature (Fuchs, 2004; Pulina et al., 2010).

After solving the DEA problem (BCC model with input orientation, initially proposed by Banker et al. in 1984) with the "DEA-Solver-PRO program", we obtain an efficiency score for each franchise enterprises and the control enterprises.

Summarising these results, *Figure 1* shows the results for the franchise enterprises and for the control companies. Figure 1 groups efficiency into different levels. For example, the highest level of efficiency, (unitary score) was reached in 2009 by 31% of franchise enterprises. Thus 31% of franchise services are totally efficient, followed by 4% of enterprises that achieved efficiency between 0.8 and 0.99. At the opposite end of efficiency are 30 % of franchise services, which achieved scores between 0 and 0.19.

In relation to the control companies, Figure 1 shows that 60% of the enterprises obtained the maximum efficiency score, whereas 4% were less efficient control companies achieved (scores between 0 and 0.19).

<p align="center">###Insert Figure 1 here###</p>

Comparative analysis of these figures suggests that being a franchise or a franchisor does not mean that the enterprise will manage its resources more efficiently.

Franchises are an increasingly widespread contractual form in Spain, but they do not guarantee efficiency.

This results, although contrary to the thesis maintained by some authors and supported empirically by studies such as, for example, those mentioned previously in this work, is in line with the findings of other studies. Thus for example, Alonso et al., (2009) analyse the efficiency of the Spanish hotel system and after studying the specific case of the Sol Meliá hotel chain conclude that there are no contractual formulas more efficient than others. The same conclusion is reached by Anderson (1984) and Bracker and Pearson (1986) who, after analysing other markets, find no significant differentiating behaviour in own firm and franchises.

The following step in this paper is to focus on relative efficiency analysis of franchise services. This analysis enables us to determine if efficiency in the chosen companies improves when they are compared only with each other, what levels of efficiency predominate and subsequently, the characteristics of the most efficient franchise services.

Relative efficiency and super-efficiency of franchise enterprises

After proving that franchise enterprises are not more efficient than the control enterprises, the second objective is to research the relative and super-efficiency of

franchiser companies and characterise the most efficient enterprises by attempting to show the differentiating elements that cause greater or lesser efficiency.

Knowledge of the best enterprises is an important reference for taking management decisions. Therefore, many different hierarchical procedures have been developed for this purpose in the literature.

In the franchise context, there are some franchise ranking publications, like the "Entrepreneur Magazine's Annual Franchise 500" that provides a ranking of the top 500 franchise companies worldwide. This ranking is intended as a tool to start a franchise search and depends on factors like the financial strength and stability of the system, the time the company has been franchising or the franchises' financial data. Obviously, it is a completely alternative ranking that should not be able to rank the enterprises analysed in this paper.

This new efficiency analysis uses the same methodology as the previous study, that is, the BCC model with input orientation. Now, however, the analysis only considers 96 franchiser enterprises with positive returns in 2009. First, because super-efficiency models (applied later to rank the efficient units) assume that inputs and outputs of the problem are non-negative variables, and second, because in our opinion, it is not worth analysing the efficiency of loss-making enterprises as the loss suggests that they have been unable to optimise resource management.

The inputs and outputs selected in this new efficiency analysis are the same as in the last application, adding two new inputs: the number of own establishments and the number of franchise businesses. The addition of these new variables is supported by the thesis of some authors (Baena and Cervino, 2012) that franchisor size is one of the significant variables in the expansion of a franchise chain.

The scores obtained for profitable franchise enterprises with the BCC model (see *Figure 2*) reflect an important improvement in efficiency between these enterprises, when they are not compared with control companies. As *Figure 2* shows only 23% of the studied firms obtain scores below 0.5 and 58% (56 out of 96) analysed franchise services achieve the unitary score.

###Insert Figure 2 here###

There is a drawback if "top efficient status" is held by many DMUs as it is not possible to discriminate between them and select the leading DMUs in the group.

To find out if DMUs with unitary scores really do have the same relative efficiency, we need to implement a new methodology that offers a procedure for obtaining a hierarchical ranking of DMUs.

In the DEA context, different ranking procedures have been developed and applied. Adler et al. (2002) offer an excellent review of the main ranking methods used with DEA methodology, concluding that each technique is useful in a specific area but

there is no unique solution for every analysis. Other authors, like Bosca et al. (2011), propose a ranking method that assumes the resolution of a set of DEA-FDH models with possible variations of inputs and outputs, in a fuzzy context. Following this investigation, Medal and Sala (2011) propose a similar hierarchical method with FDH methodology, which considers the variation coefficients condition in an uncertain context. Liu and Peng (2008) rank the units according to their efficiency score weighted by a set of weights. Reza et al. (2007) offer a new ranking system for extreme efficient DMUs based upon the omission of these efficient DMUs from a reference set. Finally, Tsou and Huangb (2010) propose a model named performance baseline that can be used to rank DMUs, providing a common basis for performance comparison.

Despite the competence and value of those techniques, in this paper we use super-efficiency methodology to rank the efficient DMUs, due to the characteristics of the data selected.

Super-efficiency models are an extension of the DEA method that measures the effect of excluding DMU under evaluation from the reference set. This procedure shrinks the production set and allows efficient DMUs to become super-efficient, with super-efficiency scores above the unit. Nevertheless, the scores of the inefficient units do not change, that is, they have the same level as in the standard models. This

methodology allows an efficient unit k to achieve a score higher than one, removing the kth constraint in the mathematical formulation of the problem, as shown in Equation 1.

$$h_k = Max \sum_{r=1}^{s} u_r y_{rk}$$

$$subject \ to:$$

$$\begin{cases} \sum_{i=1}^{m} v_i x_{ij} - \sum_{r=1}^{s} u_r y_{rj} - c_k \geq 0 & for \ j=1,...n, \quad j \neq k \\ \sum_{i=1}^{m} v_i x_{ik} = 1 \\ u_r \geq \xi & for \quad r=1,...s \\ v_i \geq \xi & for \quad i=1,...m \end{cases} \qquad (1)$$

Adler et al., 2002, describe this methodology as a ranking process in the DEA context, and identify three problematic areas in this analysis.

The first problem is associated with the weights used to evaluate unit efficiency. The objective function value of the DEA problem designed by Andersen and Petersen, (1993), gives a rank score for all units, but each unit is evaluated according to different weights.

Second, the super-efficiency methodology can give "specialised" units an excessively high ranking. Therefore, enterprises that are especially good at managing one or more of their inputs can determine the DEA frontier, conditioning the score efficiency of the rest of the units. This drawback concerns the existence of outliers or influent units, but it is not a problem in our analysis. Nevertheless, Sueyoshi (1999) developed a new formulation for the super-efficiency problem that avoids this problem.

Finally, the third problem refers to the fact than some super-efficient DEA models can be infeasible. In such cases, the super-efficiency method cannot provide a complete ranking of the units selected. Zhu (1996), Seiford and Zhu (2001) analyse which conditions make a super-efficient DEA model infeasible, and Mehrabian et al. (1999) suggest a modification to the problem formulation in order to avoid this limitation.

Despite these limitations, super-efficiency models have been broadly applied in the literature for different purposes. For instance, Banker et al. (1989) used this methodology to screen out outliers in the set of DMUs; Charnes and Neralic (1992), Seiford and Zhu (1998) and Zhu (2001) developed several new super-efficiency models to analyse the sensitivity of efficient DMUs and determine efficiency stability regions; Andersen and Petersen (1993) and Noura et al. (2011) employed the super-efficiency model to rank efficient units and discriminate performance among efficient DMUs, and Avkiran (2011) uses DEA super-efficiency for estimating the relationship between efficiency and financial ratios in banks.

In this paper we use the super-efficiency model to rank DMUs (following Andersen and Petersen, 1993) with a BCC equivalent model (with input orientation) introduced by Lovell and Rouse (2003). We obtain new super-efficiency scores for the 56 DMUs that were classified as completely efficient in the previous analysis, enabling us to establish a hierarchical order between them. Due to the physical limitations of this

paper, *Table 1* shows the top ten franchise services from the data selected. This table

shows the ranking of the top ten franchise services from the super-efficiency analysis.

###Insert Table 1 here###

Starting from the given DMU ranking of the most efficient franchise services with

profits, the following step is to characterise the most efficient enterprises. *Table 1* also

shows the variables selected for this purpose: the total number of establishments of

each company (own establishments and franchise businesses) and the ROE ratio

(return on equity), defined by equation (2).

$$ROE = \frac{returns\ before\ interests\ and\ taxes}{own\ \ resources} \tag{2}$$

Figure 3 shows the relationship between the rank and the total number of

establishments (own and franchise business) for the top ten enterprises. Although

initially it might seem that the best enterprises are those that have achieved a large

number of own establishments or franchises, *Figure 3* makes it clear that the number

of establishments is not a relevant variable for greater efficiency. For instance,

whereas the second firm (The Bymovil Spain S.L.) has 158 establishments (9 own

and 149 franchised), the sixth company in the ranking (Boskuchen S.L.) only has 4

establishments.

22

###Insert Figure 3 here###

Nevertheless, if we represent the ROE for the top fifteen franchise services depending on the established ranking (*Figure 4*), it can be seen that many of the most efficient enterprises have high returns. For instance, the second company (The Bymovil Spain S.L.) had a very high ROE in 2009 of 202.48%. Although the sample firms show differences in profitability, the average ROE for the 15 most efficient businesses is 53.35%.

###Insert Figure 4 here###

In summary, profitability and efficiency are not the same. Profitability measures a business's ability to generate earnings while efficiency determines an enterprise's capacity to obtain maximum output with its own resources or its capacity to achieve the same results with the minimum inputs. In our case, the most efficient enterprises are those that have been able to obtain their outputs (sales and returns in 2009) with the minimum level of inputs (assets, own resources, liabilities and workers). Nevertheless, being the most efficient company normally means being the most profitable.

Conclusions

This article aims to analyse efficiency in a set of franchise services in the trade and other services sector on two levels: in comparison with non-franchise enterprises in

the same sector (control sample) and comparing them exclusively with each other using DEA methodology.

The results show that franchise services are not more efficient than other similar enterprises. Franchising does not ensure that the company's resources are managed more efficiently.

Comparison of the franchise enterprises with each other suggests that the valuation of most companies improves and most of them are evaluated as being totally efficient (unitary score). This finding makes it difficult to select the companies that really are the most efficient and so we propose the use of the super-efficiency Model.

The application of this model enables a ranking to be established between the units (franchises) and suggests that efficiency is not linked to the number of establishments in a franchise (whether ownership or franchise enterprises). The link, however, becomes clear when relating the ranking in Table 1 to franchise profitability measured by ROE (Figure 4). In general, the higher the ranking, the greater the ROE. That is, the most efficient franchisors show better financial results, although this is not always fulfilled in each particular case.

One of the contributions of this study is to separate efficiency and profit as measures of performance and then examine the way they relate to each other when comparing franchises in the trade and other services sector. The economics and business

24

literature, including the franchising literature, implicitly assumes that greater

efficiency leads to higher profits and vice versa, but depending on the measurement

method and the set of companies, this assumption may not necessarily hold true.

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Figure 1

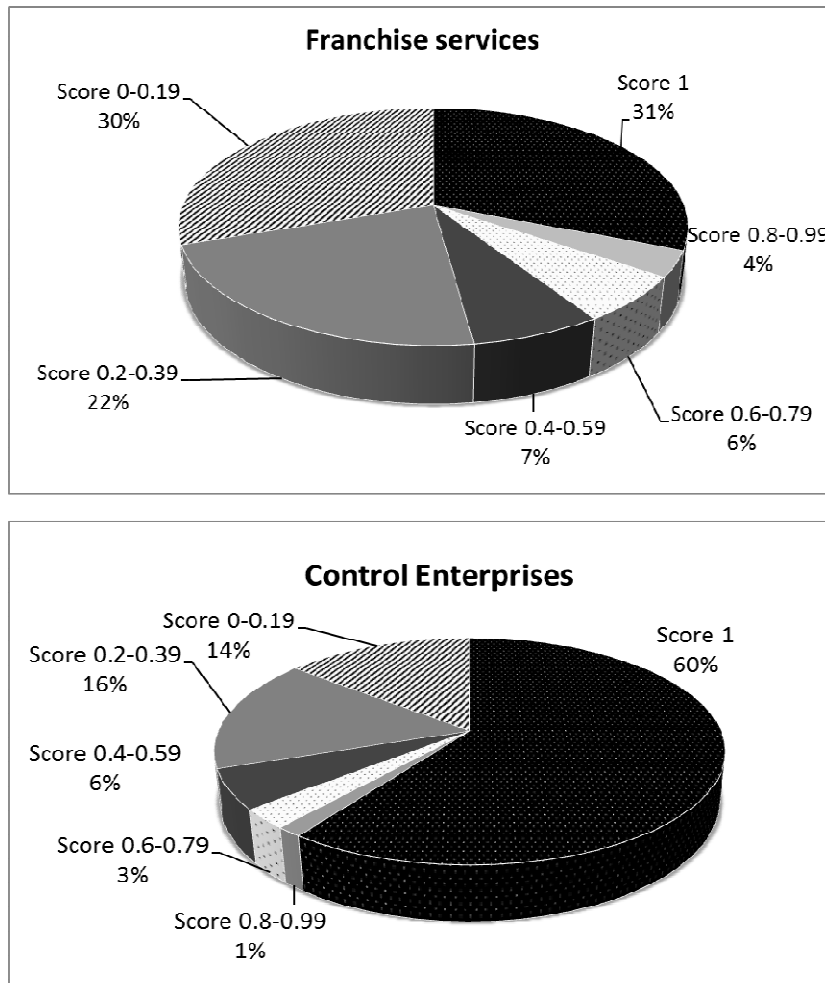Efficiency scores for control enterprises versus franchise services

Figure 2

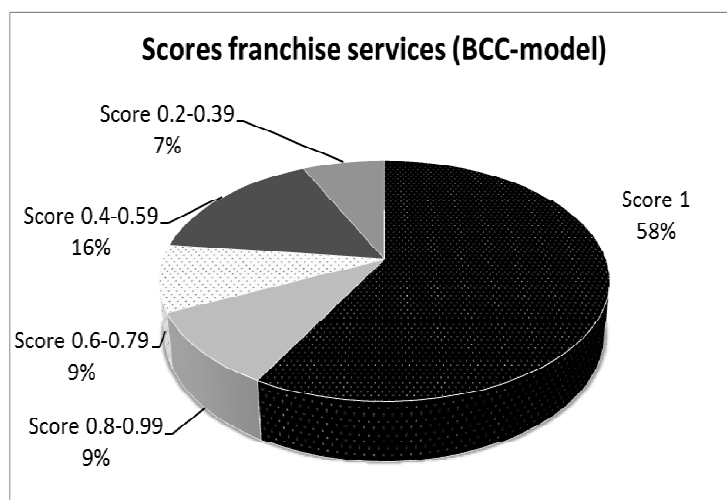Scores franchise services (BCC-model)

Table 1

Top ten scores of profitable franchise services

Super-efficiency Ranking	Franchise Services	ROE	Own establishments	Franchise business
1	Merkamueble Europa S.A.	50.59%	4	71
2	The Bymovil Spain S.L.	202.48%	9	149
3	Ars Rei S.L.	25.52%	26	0
4	Congelats Flor De Neu S.L.	12.50%	7	1
5	Onipse Canarias SL.	99.61%	0	28
6	Boskuchen S.L.	20.00%	1	3
7	No es pecado S.L.	17.78%	0	17
8	Servifruit Gomab S.L.	13.95%	14	10
9	Esparta Factoria de Proteccion S.L.	87.50%	1	18
10	Condis Supermercats S.A.	9.63%	202	234

Figure 3

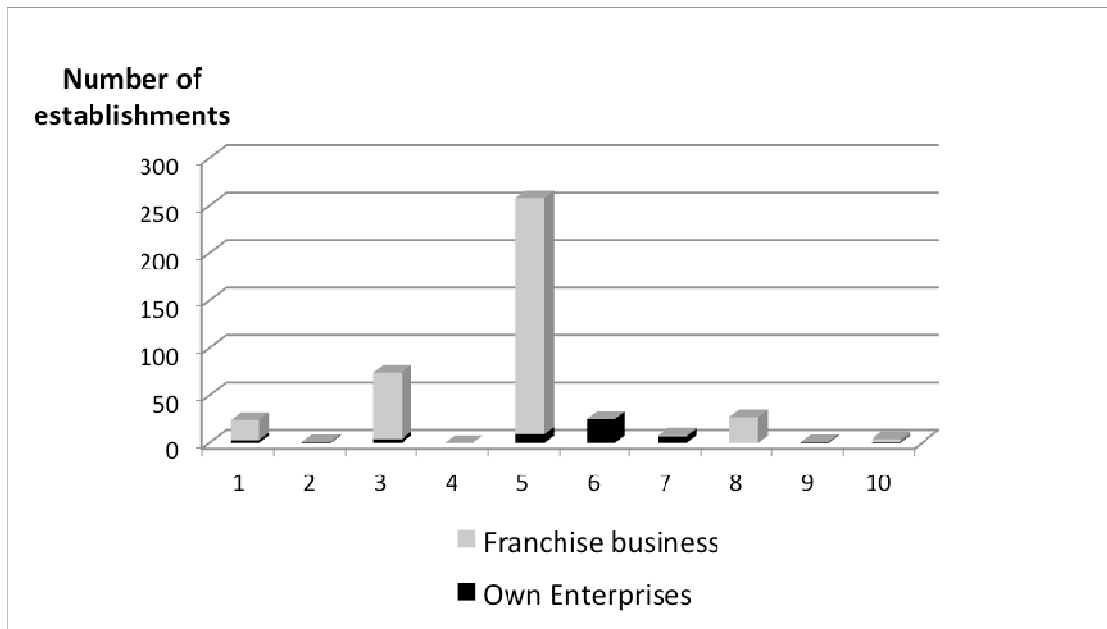Number of establishments of 10 most efficient franchise services

Figure 4

Return on Equity for 10 most efficient franchise services