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Article

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Analysis of efficiency of own and franchised units in the Spanish franchise system[☆]



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ABSTRACT

In this work, we try to answer a key question: what are the more efficient units in franchising: owned or franchised? The literature on this specific field is very limited. To compare the efficiency of owned and franchised units we use the following variables: average sales per unit, average sales per employee and the average number of employees per unit for owned and franchised establishments. The analyses are carried out using the population of franchise chains, a database with the 1232 franchise chains existing in Spain at the end of 2015 has been created for this purpose. The results show the higher efficiency of owned regarding franchised units.

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1. Introduction

The Spanish system of franchise has carried on with its growth tendency according to the analysis of the data provided by the Spanish Association of Franchisors (AEF) through their reports and annual summaries. The growth of Spanish Franchise is remarkable, increasing the number of chains from 646 in 2001 to 1232 chains in 2015, which entails a growth of 90.7%. Moreover, the number of total units has shifted from 35,692 to 65,878 (which constitutes an increase of 84.57%), the number of owned units (OU) has increased from 7931 to 19,688 (which entails an increase of 148.24%), and the number of franchised units (FU) has changed from 27,761 to 46,190 (which means a growth of 66.38%), in the same period. The development of Franchise has suffered a deceleration and even has experimented a decrease in the franchised units in the period 2008–2013 due to the economic crisis. This decrease was provoked mainly by the downfall of some sectors (real estate franchises and financial franchises) that started to show signs of a clear recovery

from the year 2014. Nevertheless, the owned units have never stopped growing during the economic crisis, which can indicate that franchise chains in this period have continued to grow through owned units or have transformed franchised units into owned ones.

The franchise system has been visualized as a dual or mixed system, regarding that the chains are integrated by owned and franchised units. The franchised units constituted the 77.78% of the total units in the Spanish system of franchise, whereas the owned units constituted the 22.22% of the total units, in the year 2001. The data from the year 2015 shows that the franchised units represent the 70.11% and the owned units constitute a percentage of 29.89% of the total units. Therefore, the evolution of Spanish franchise in the period 2001–2015 clearly points out the growth tendency of the percentage of the owned units, and a decrease in the ratio of the franchised units. From our view, these facts indicate the maturity of the Spanish system of franchise.

The majority of the literature and research works concerning owned and franchised units have been carried out from the franchisor perspective. In the context of the growth of a franchise chain, the objective was to acknowledge if a new-born unit would be owned or franchised, taking into account a group of strategical variables (size or number of units of the franchise, years in business, etc.) as well as some economic variables (first inversion, royalty, etc.) (Díez, Navarro, Rondán, & Rodríguez, 2008).

[☆] A previous exploratory work analyzing data from 2012 was presented at the 25th International Conference AEDEM in Riga (2016).

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Nevertheless, the economic interest for both the franchisor and the potential franchisees is the main determinant in the selection of the new units. It is undeniable that franchise can be extremely useful for both franchisors and franchisees in order to compare the results of the owned and franchised units of a single chain or between different chains.

Despite, it is important to point out that key economic figures as profitability, sales, benefits, costs, and other indicators of the owned units and the franchised units are not available, and therefore they have not been used due to the impossibility of obtaining them. Considering that to access the economic indicators for the central business or the main franchisor business is already difficult, it is even more problematic to obtain these economic indicators for each of the owned and franchised units, making it impossible to compare owned and franchised units even if they belong to the same chain.

In this context, our aim is to study and compare owned and franchised units in the Spanish franchise system in order to ascertain which kind of unit is more efficient.

The European Research Magazine of Business Administration and Economics published the research paper "Franchised units versus owned units in the franchise system: An empiric research" (Díez et al., 2008). The abovementioned research paper uses data of franchises in 2005, and its results are not conclusive enough since some of the proposed hypotheses were not confirm. This research paper from 2008 has been referenced very often in other scientific papers, but newer research papers following this line of investigation have not been published to this date. Therefore, taking into account the relevance of the research topic, we consider it is needed to carry out further research in the line of the mentioned paper to clarify and improve the knowledge of the dichotomy between owned and franchised units.

Following this context our research is focused in the Spanish franchise system and has as its main objective to determine which of the two kinds of units (owned or franchised ones) turns out to be more efficient. With this purpose in mind, we use the following efficiency indicators: average sales per establishment, average sales per employee and additionally we analyze average number of employees per establishment. From each one of those indicators we obtain two variables, one for the owned units and another for the franchised units. All the analyses that will be conducted for each of the efficiency indicators will be carried out at a global level (the whole franchise population existing in Spain) as well as the distribution level strategy (single-channel: chains that only operate through franchised units; dual-channel: chains that operate with both franchised and owned units).

2. Theoretical framework

2.1. Owned units vs. franchised units

Nowadays, the franchise system has been described as a hybrid, dual, or mixed system (Rondán, Navarro, & Díez, 2007), because the franchisor uses owned units as well as franchised units to distribute their products or services, (Castrogiovanni, Combs, & Justis, 2006; Combs & Ketchen, 2003; Croonen, Grünhagen, & Wollan, 2016; Elango & Fried, 1997; Lafontaine & Slade, 1997; Nijmeier, Fabbriotti, & Huijsman, 2014; Srinivasan, 2006). The organizations that operate through franchise do not follow a plain strategy, while some of them opt to expand exclusively through franchised units (apart from the so-called pilot establishments), others adopt a mixed system using both owned and franchised units. Following this line, Dant, Kaufmann, and Paswan (1992) claim that the chains that operate with both types of units have the advantage of being able to analyze them and note if there are performance or result

differences between the owned units and the franchised units. As well as examining the differences between the different franchised units. From a different perspective, Bradach and Eccles (1989) point out that franchise chains use a system with owned and franchised units not only because some establishments are more adequate for one or another kind of property, but also because the existence of one kind of unit has a positive impact on the management of the other kinds. This allows to maintain uniformity through the whole chain and a better adaptation to local markets.

The franchise dual consideration (referring to the use of owned and franchised units) has been mentioned permanently in the scientific research literature as well as the professional environment of franchise. Combs and Castrogiovanni (1994) claim that franchise research intends to explain why franchisors choose some of their units as owned ones and other units as franchised ones (Brickley & Dark, 1987; Carney & Gedajlovic, 1991; Martin, 1988; Norton, 1988a, 1988b).

More recent studies indicate that the effects of a high proportion of franchisees, together with active owned units, the exchange of knowledge and standardized instructions to operate are the key factors in franchises and these minimize the conflicts between franchisors and franchisees (Nijmeier et al., 2014). Besides, Croonen et al. (2016) claim that in the field of human resources management, the units that belong to only one franchisor and small owners with only a very few franchised units are more efficient in the employee management if we compare them with the units that belong to franchisors who own a great number of franchised units. It is also convenient to point out that some studies have demonstrated that the proportion of franchised units has a non-lineal influence (in the shape of an inverted U) over the results of the franchisor chains (El Akremi, Perrigot, & Piot-Lepetit, 2015).

2.2. Variables used in this research

Prior to formulate our research hypotheses, we do believe that to make precise explanations about some key terms in our research is convenient: two efficiency indicators, a resource input, and distribution strategy.

2.2.1. Indicators

The value of a business's efficiency indicator does not have a huge relevance when it is analyzed on its own. Nevertheless, this indicator gains relevance when compared to other enterprise's indicators. In this research, we do use two efficiency indicators to evaluate the units present in a franchise chain: average sales per employee, average sales per establishment.

In the commercial activity, the indicators which relate sales and employees with the available resources are the most used ones, specially, sales per unit and sales per employee. These indicators allow to make comparisons between different sections of the same establishment, between establishments of the same enterprise, and between establishments that belong to different companies.

The indicator average number of employees per unit is used as a resource input indicator, explaining differences between sales per unit and sales per employees.

Moreover, these indicators are really useful to analyze the evolution of the different commercial units throughout the years.

2.2.2. Chain's distribution strategy

Franchisors can choose to use two distribution strategies in their expansion: dual-channel system or single-channel system (only franchise). Franchise research takes as its starting point that franchise is a mixed system, which uses owned and franchised units jointly. From a theoretical point of view, franchise could be considered as a mixed system, since the existence of owned units is mandatory to test the know-how, to develop new products,

and serve as pilot establishments and training centers, etc. (Díez, Navarro, & Rondán, 2005). Nevertheless, some franchises avoid this situation, without detracting the franchise philosophy, through the pilot-establishment contract and/or transforming owned units in franchised units. The nonexistence of owned units or the existence of those, albeit in a very reduced number, functioning as pilots' establishments, leads us to consider that in the franchise system there are chains that only use franchised units (except for the pilot units), and therefore, follow a single-channel strategy (or only franchise), which is opposed to the dual-channel systems that operate with both owned and franchised units.

A new line of thoughts would appear if we consider that a demarcation criteria is necessary to differentiate if a network follows a single-channel strategy or a dual-channel strategy. The only reference known in this sense is exposed in the research paper of Rondán et al. (2007), who set the demarcation limit in the existence of a maximum of five owned units to consider that a franchise chain follows a single-channel strategy, and from six owned units and on, the franchise chain will be considered as a franchise which follows the dual-channel or mixed strategy. To the best of our knowledge, this limit is very accurate and can be softened up (more reducing than amplifying the number of owned units) without losing the sense of the single-channel strategy, which, from our point of view, have its maximum between 3 and 5 owned units.

The rule of 3/2 (Gast, 1982) advocates that franchisors should not proceed to recruit franchisees before having three pilot establishments for at least two years. This rule has been profusely followed by many researchers (Bermúdez González, 2002; Díez et al., 2005; Miquel, Parra, Lhermie, & Miquel, 2008).

This reasoning leads us to consider in our database that all the chains that own three or less own units do not follow the dual strategy. The question is whether the demarcation criterion is set at this limit or can be expanded. The reality indicates that it is frequent that some chains have some units that being owned cannot be considered as a pilot center. This would make it possible to raise the demarcation criterion to a maximum of 5 for greater security.

Considering a maximum of five owned units, the single-channel system represents the 69% of the population, whereas the dual-channel system represents the 31%, from the total of franchises that operate in the Spanish territory in 2015. We do believe that it is important to emphasize, that, following this criterion, two third parts of franchises in this country follow the strategy of operating only with franchised units (always excluding the units considered as pilot establishments). Whereas a third part of the franchises operate through a dual-channel or mixed system that contains both owned and franchised units.

2.3. Research hypothesis

To position ourselves about which type of unit is more efficient, owned or franchised ones, we are going to base our thinking in two different sections: (a) citations and general studies about the efficiency of owned and franchised units; (b) the precedent paper of Díez et al. (2008).

2.3.1. General studies about franchise

Studies that deal indirectly with the topic of efficiency can help us to position ourselves about the efficiency of owned and franchised units. However, these results are divergent. To start with, Brickley and Dark (1987) and Minkler (1990) consider that franchised units are more efficient than own units when the network of franchise operates in an environment with a great level of uncertainty and when it is more difficult to control the behavior of franchised units. To the contrary, Dant and Kaufmann (2003) point out that the fast food industry has strong incentives to maintain

the quality system, which is often associated to owned units (Scott, 1995). Furthermore, Dant et al. (1992) recall the advantages to maintain both owned and franchised units, specifying that one of the main benefits of having a mixed system is that franchised unit help to compare and evaluate the results of owned units, which can lead into some healthy competition between owned and franchised units.

Following this same logic, many studies have found out that instead of choosing between owned and franchised units, it is the combined use of both what contributes to build a more efficient network (Bradach, 1997; Cliquet, 2000; Cliquet & Croizean, 2002; Dant & Kaufmann, 2003; Perrigot, Cliquet, & Piot-Lepetit, 2009). In the words of Piot-Lepetit, Perrigot, and Cliquet (2014), it is surprising that although there is a lot of research that analyze the performance of the retailer commerce and of the services using the concept of efficiency (Barros, 2006; Barros & Alves, 2003; De Jorge, 2008; De Jorge & Sanz, 2011; García, Medal-Bartual, & Peris-Ortiz, 2014; Medal-Bartual, Garcia-Martin, & Sala-Garrido, 2012; Mostafa, 2009; Ramírez-Hurtado & Contreras, 2016; Sellers & Mas, 2006; Uyar, Bayyurt, Dilber, & Karaca, 2013; Yu & Ramanathan, 2008) there are only a few of them that are focused on franchise, regardless of the importance and necessity of this line of research (Combs, Ketchen, Shook, & Short, 2011; Combs, Ketchen, & Short, 2011; El Akremi et al., 2015).

Some recent research papers link the efficiency with the determination of the optimal percentage between owned and franchised units. For example, Hsu and Jang (2009) claim that the optimal percentage of franchised sales points is 44% in order to optimize the return on assets, and 46% to optimize the return on capital. Nevertheless, El Akremi et al. (2015), using a sample of franchise chains of the United States, both of retailers and service firms, establish an optimal rate of a 62% percentage of franchised units. It is important to point out that, in the first case, the number of franchised units was lower than the owned units, whereas in the second case, it is the opposite situation.

In the research paper carried out by Roh and Choi (2010) a comparison of the efficiency of the different franchise chains within the same business group is compared. Last but not least, a recent research about the efficiency field is the one carried out by Piot-Lepetit et al. (2014), who jointly study the efficiency and the determination of the optimal percentage of owned sales points of 47 franchise chains, using the DEA technique (Data Envelopment Analysis).

Following Macías (2015), the franchise chains, in their expansion period prefer to grow through franchised units, and later on, they choose to achieve a higher efficiency level through owned units: new ones, re-purchased ones or they stop to renovate franchise contracts (Ayup & Calderón, 2014; Lafontaine & Shaw, 2005; Shane, Shankar, & Aravidakshan, 2006; Widsperger & Dant, 2006).

A quick literature review shows us that nowadays the consideration of the efficiency in franchise studies is starting to achieve a higher significance. Although it is always calculated with a reduced sample of the franchise chains and working only with the information provided by the franchisor and not the information of the franchised units.

This sample of research indicates clearly the difficulty of positioning ourselves about the efficiency of the owned and franchised units. Provided that they depend on different factors, like the amount of time that franchise has been operating, the size of the chain, the location, the percentage of owned and franchised units of the chain, etc.

2.3.2. The research paper of Díez et al. (2008)

These authors argue that the efficiency of the owned units is higher than the efficiency in the franchised units for the three indicators that we are going to develop.

Regarding the *sales per establishment*, these researchers gather the data from the research of [Shelton \(1967\)](#) in which the sales and benefits of the franchised units are superior than the sales and benefits from the owned units, and the vision of [Anderson \(1984\)](#) and [Bracker and Pearson \(1986\)](#), who do not find any differences between the sales in the owned and franchised establishments.

Regarding this concern, the research paper of [Bürkle and Posselt \(2008\)](#) proposes the benefit as the indicator to evaluate the ownership of the units. When the benefits that the franchised units provide to the franchisor decrease, the owned units do grow. Therefore, the drop of the benefits can be regarded as an incentive for the properties to change its management. Another important research study is the one carried out by [Thomas, O'hara, and Musgrave \(1990\)](#) that analyses the transformation of franchised establishments into owned ones, and this phenomenon occurs when the franchised units achieve high levels of sales. Lastly, [Martin \(1988\)](#) points out that franchisors tend to have as owned units those which report higher sales to them and those with more uncertain sales would turn out as franchised units.

Concerning the *sales per employee* and following the Agency Theory, our starting point is that franchised establishments should be more efficient than the owned units. But this phenomenon occurs under certain specific conditions in franchise. The scientific literature indicates contradictory investigations, for example, [Norton \(1988a\)](#) indicates that when the sales per employee are high, to have owned units rather than franchised units is more desirable. Although this is not an easy decision, [Díez et al. \(2008\)](#) justify that “based on precedent research and our knowledge of franchise in Spain” it is possible to formulate the hypothesis in the sense that the sales per employee are higher in the owned units than in the franchised units.

Lastly, concerning the *number of employees per establishment*, it is necessary to precise that one of the fundamental features of the franchise system consists of the uniformity of the establishments. From this perspective, the establishments with a lower number of employees would be the most efficient ones, always on the assumption that the quality of the service remains the same. Nevertheless, franchisors can adopt different strategies: one alternative entails that all the units would be the same or similar in size or exclusivity area. On the contrary, another option would imply to present differentiated units according to the market in which they are operating (this would mean to have 2 or 3 different types of establishments). If we follow this last orientation, and relying on the research paper of [Thompson \(1992\)](#), we can conclude that the owned units are situated in urban areas or areas with a larger density of population, which results in bigger units to satisfy the needs of a higher flow of customers. Therefore, the owned units would be the larger in size, and consequently, they would have a higher number of employees per establishment, although this does not make them less efficient.

Once these considerations have been made, the precedent research paper follows the work of [Thompson \(1992\)](#), and takes the position that the number of employees per unit is higher in the owned units rather than in the franchised units.

All in all, the review of the scientific literature does not provide enough clarity and portrays some contradictions when the authors must position themselves in a decisive way in the sense of the hypotheses. The position of the authors of the precedent study is verified in the obtained results. This position supported a higher efficiency of the owned units when compared to the franchised units. Therefore, we place ourselves in this same line of reasoning as the most convenient sense in order to formulate the research hypotheses in this paper.

As it has been depicted above, we do formulate our research hypotheses in the following way:

Hypothesis 1. The average sales per establishment in the owned units are significantly higher than the sales per establishment in the franchised units.

Hypothesis 2. The average sales per establishment in the owned units are significantly higher than the average sales in the franchised units in the chains that operate with a single channel strategy (only franchised units).

Hypothesis 3. The average sales per establishment in the owned units are significantly higher than the average sales in the franchised units in the chains that operate through a dual channel or mixed strategy.

Hypothesis 4. The average sales per employee in the owned units are significantly higher than the average sales per employee in the franchised units.

Hypothesis 5. The average sales per employee in the owned units are significantly higher than the average sales in franchised units in the chains that operate with a single channel strategy (only franchised units).

Hypothesis 6. The average sales per employee in the owned units are significantly higher than the average sales per employee in the franchised units in the chains that operate through a dual channel or mixed strategy.

Hypothesis 7. The average number of employees per establishment in the owned units is significantly higher than average the number of employees in the franchised units.

Hypothesis 8. The average number of employees per establishment in the owned units is significantly higher than the average number of employees in the franchised units in the chains that operate with a single channel strategy (only franchised units).

Hypothesis 9. The average number of employees per establishment in the owned units is significantly higher than the average number of employees in the franchised units that operate through a dual channel or mixed strategy.

3. Methodology

The existing franchise data concerns, mostly, online databases and yearbooks compilations that do not gather data at a chain level. Therefore, we could not have done this research paper without the database provided by the Spanish Franchisors Association (AEF¹). The main difficulty is to obtain sales and employees data of the OU and FU for each network or franchise chain.

One of the stronger points of this research when compared with most franchise investigations is the fact that we do not operate with a sample of the population but with the total franchise population in Spain by the end of the year 2015. The used database has been created with the data provided by the Spanish Franchisors Association (AEF) and gathers individualized data of the 1232 franchise chains existing in Spain in 2015. The AEF is one of the associations with higher prestige on an international level, the chains that take part in their franchise database are selected carefully and have to comply with strict requisites.² Moreover, since the AEF was founded

¹ We would like to thank to AEF (Spanish Franchisors Association), the data provided and the given authorization to use the database with scientific purposes.

² The Spanish Franchisors Association (AEF) follows the criteria of the European Code of Ethics for Franchising and considers as a franchising business “any national or foreign entity, which corresponds to a business concept that is tested through pilot establishments; has its own know-how which is differentiated and transferable; that also holds the property or license of use of the brands and distinctive emblems of the chain, and has the resources to provide training and technical assistance to their franchisees”.

in 1992, they have not ceased to publish the yearbook data and to issue reports concerning the franchise in Spain.

It is the combination of all those mentioned facts what allows us to examine the coherency and the contrast of the data on its own and along with other sources as the Register of franchisors and SABI (Analysis System of Iberian Balances), making it possible for us to use their data in research with a certain level of security, provided there are not objective reasons to doubt its veracity.

Databases created from secondary information have been used in the most prestigious scientific franchise research both at a national and international level (Alon, 1999, 2001; Baena, 2009; Baena & Cerviño, 2009; Combs & Castrogiovanni, 1994; Lafontaine, 1992; Martin & Justis, 1993; Shane, 1996). Although the gathered data are provided by franchisors, various researchers claim that the data is not biased (Combs & Castrogiovanni, 1994; Shane, 1996), because the yearbooks validate (following strict criteria when including new franchises) beyond 80% of the data (Díez et al., 2008; Macías, 2015).

With the database, we elaborate the following indicators, average sales per unit (S/U), average sales per employee (S/E) and average number of employees per unit (E/U), obtaining two series for each of them, the first one for the owned units (OU) and the second one for the franchised units (FU). These calculations are made for the whole sample, but also on the level of the adopted strategy (dual or single channel).

The methodology we are going to apply consists of a difference of means comparison for the variables OU and FU obtained for each of the efficiency and resource indicators S/U, S/E and E/U. To verify our proposed hypotheses, we used the *T* tests which enabled us to verify if the differences of the mean values between OU and FU were statistically significant.

When a hypothesis test using two samples is carried out, to select the kind of test depending on whether the samples are independent or related is needed. In our case, the samples are related provided that the data are paired. For each of the observations of the variable owned units it has its correspondence in the other variable with another observation of the franchised units of the same network. Furthermore, owned and franchised units of the same chain are related in the sense that it is the franchisor who considers if a unit should be an owned or franchised unit. Therefore, there is a big dependency between the franchisor and its franchisees (following the standards prescribed by the franchisor, paying the functioning canon and the advertising royalty, the fact that the contract can be not renovated, etc.).

We ought to choose, in order to compare means, a parametric test as long as the variables are continuous and that they do comply with the requisites of normality and homoscedasticity. In a different case, we will use non-parametric tests. In all the tests a level of confidence of 95% will be used.

4. Results

The results have been obtained with a total population of 1.232 franchise chains. Up to 196 items of data have been lost since there are 193 franchise chains that do not have any owned establishments and 3 franchises do not have any franchised units. To treat the data, we have used the software IBM SPSS Statistics Version 24.

All the normality Kolmogorov–Smirnov tests that have been conducted over the variables yield negative results, therefore we do not accept the normality of the analyzed variables. Consequently, we carry out all data treatments using non-parametric tests for two related samples of Wilcoxon.

Tables 1–3 sum up the results of the Wilcoxon tests carried out over the analyzed paired variables. In those charts, we also include the following items: the means of the variables for the owned and

franchised units; the superiority percentage of the owned units over the franchised units; the negative ranks (number of observations for which the owned units are inferior to the franchised units); positive ranks (number of observations for which the owned units are superior); ties (number of equalities that are discarded for the analysis), and lastly, the size of the sample.

4.1. Average sales per establishment or unit (S/U)

Hypothesis contrasting analysis: the tests in Table 1 indicate the *Z* value of the Wilcoxon test and its critical bilateral level (asymptotic bilateral significance) is 0.000 for all levels, which indicates that the differences between the average sales per unit of the OU and FU are statistically significant.

This verifies not only the sense of Hypotheses 1–3 (S/U are higher in the OU than in the FU) but also, what it is more important is that the mean values of S/U for each group are statistically different, therefore, *hypothesis 1 to 3 are confirmed*.

Consequently, if we consider the results of this indicator individually, we would position ourselves in favor of a higher efficiency of the OU when compared to the FU.

Figures of average sales per unit analysis (S/U): as we have already mentioned, the S/U of the OU outnumber the FU for all the analysis levels. The S/U for the OU and the FU at the total level of population is of 412,363 € and 267,710 €, respectively. The superiority of the S/U of the OU when compared to the FU is a percentage of 54% at the level of the whole population, and important differences of a 75% for the franchises that follow a single-channel strategy. The most reduced differences entail a 20% for the chains that follow a dual-channel strategy.

Furthermore, there are no remarkable differences (only a 20%) concerning the S/U in the chains with a dual-channel strategy, although they are statistically significant. Since this fact reveals that the results of the FU are close to the OU, which can be considered as positive for the potential new franchisees. Nevertheless, rationally there is a huge gap between the average sales per unit in the OU and FU in the single-channel strategy (75%). Usually, with this strategy the owned units are the pilot establishments that constituted the origin of the franchise, so they normally have larger dimensions, a better location, etc.

Ranks analysis: if we analyze the number of chains in which the S/U outnumber the FU, we can notice a certain degree of uniformity for all the levels of study. In the whole sample, it is a percentage of 86% and a maximum of 89% in the single-channel strategy.

4.2. Average sales per employee (S/E)

Hypotheses contrasting analysis: Table 2 summarizes all the data obtained concerning the indicator S/E. This chart indicates, that, for all the study cases, the average sales per employee in the OU are higher than in the FU. The Wilcoxon test indicates that these differences are indeed statistically significant (with *p*-values under 0.05). Thus, *hypotheses 4 to 6 are confirmed*. Once more, if we consider the results of this indicator individually, we would position ourselves in favor of a higher efficiency of the OU when compared to the FU. These results differ from the precedent research paper of Díez et al. (2008), where, in general, they did not found significant differences in the average sales per employee (S/E) between OU and FU. And, to a certain extent, the abovementioned research paper is confronted to several other research papers that presume that S/E are higher in the FU than in the OU (which would agree with the agency theory).

We agree with Díez et al. (2008) that there are reasons that justify the result associated with these study hypotheses. This way, the biggest incentives that the franchisee can obtain, whose retribution is linked with its efficiency in its own work compared to the

Table 1
Average sales per establishment (S/U).

		Total population	Strategy	
			Dual-channel	Single-channel
Average sales per establishment	OU	412,363	373,918	434,348
	FU	267,710	310,425	248,736
	% $\frac{OU-FU}{FU}$	54%	20%	75%
Negative ranks (a)		126 (12%)	65 (17%)	61 (9%)
Positive ranks (b)		894 (86%)	310 (82%)	584 (89%)
Ties (c)		16 (2%)	3 (1%)	13 (2%)
N (population size)		1036	378	658
Wilcoxon Signed Ranks Test: Z (d)		-22.415	-11.585	-19.169
Asymp. Sig. (2-tailed) (e)		.000	.000	.000

(a) Sales/unit OU < FU; (b) sales/unit OU > FU; (c) sales/unit OU = FU; (d) based in negative ranks; (e) asymptotic Sig. (bilateral).

Table 2
Average sales per employee (S/E).

		Total population	Strategy	
			Dual-channel	Single-channel
Average sales per employee	OU	88,700	90,989	87,391
	FU	76,345	81,847	73,901
	% $\frac{OU-FU}{FU}$	16%	11%	18%
Negative ranks (a)		346 (33%)	130 (34%)	216 (33%)
Positive ranks (b)		682 (66%)	246 (65%)	436 (66%)
Ties (c)		8 (1%)	2 (1%)	6 (1%)
N (population size)		1.036	378	658
Wilcoxon Signed Ranks Test: Z (d)		-11.363	-6.730	-9.180
Asymp. Sig. (2-tailed) (e)		.000	.000	.000

(a) Sales/employee OU < FU; (b) sales/employee OU > FU; (c) sales/employee OU = FU; (d) based in negative ranks; (e) asymptotic Sig. (bilateral).

Table 3
Average Number of Employees per Establishment (E/U).

		Total population	Strategy	
			Dual-channel	Single-channel
Average number of employees per establishment	OU	3.61	3.91	3.43
	FU	3.18	3.67	2.96
	% $\frac{OU-FU}{FU}$	14%	7%	16%
Negative ranks (a)		72 (7%)	41 (11%)	31 (5%)
Positive ranks (b)		467 (45%)	144 (38%)	323 (49%)
Ties (c)		497 (48%)	193 (51%)	304 (46%)
N (population size)		1036	378	658
Wilcoxon Signed Ranks Test: Z (d)		-16.542	-7.801	-14.491
Asymp. Sig. (2-tailed) (e)		.000	.000	.000

(a) Sales/employee OU < FU; (b) sales/employee OU > FU; (c) sales/employee OU = FU; (d) based in negative ranks; (e) asymptotic Sig. (bilateral).

manager of an owned unit that works on behalf of the franchisor, are not transferred to the franchisee and/or its employees. Another possible reason for this can be that no more S/E are achieved in the FU because the establishments are situated in worse places or locations.

Figures of average sales per employee analysis (S/E): the S/E of the OU outnumbered the FU in all the levels of analysis. It is important to highlight that the differences between S/E between OU and FU are lower than the obtained differences for the variable S/U. The superiority at the level of the whole population is 16%. Moreover, it is as well important to point out that the average sales per employee at the level of the whole population is of 88,700 € for the OU and 76,345 € for the FU.

Ranks analysis: if we analyze the number of chains in which the S/E of the OU is more than the FU. We do observe a great uniformity for all the levels of study, and the same impression can be extrapolated to the precedent variable. Although in this second case, these differences achieve a lower proportion. For the whole sample, a 66% is the percentage of networks in which the average sales per employee is higher in the owned units when compared to the franchised units.

4.3. Employees per establishment or unit (E/U)

Hypotheses contrasting analysis: Table 3 gathers the data concerning the indicator (E/U). The Wilcoxon tests reveal that for all the study cases (at the level of the whole population and at the distribution strategy level) the average number of employees per unit in OU is higher than in FU. This test establishes that those differences are statistically significant (with *p*-values lower than 0.05). Therefore, *hypotheses 7 to 9 are confirmed*.

From these results we can infer that, since the FU present a lower overall ratio of average number of employees when compared to the OU, there is a superiority or a higher performance of the franchised units when compared to the owned units. Nevertheless, we should acknowledge that the incentives of the franchisee can lead him to spend more working hours than the staff from the owned establishments, which would compensate the staff differences. It is important to highlight that, for the previous variables, we can consider that the FU could be smaller than the OU and therefore they would not need as much staff for the customer service.

Figures of average number of employees per establishment analysis (E/U): the average number of employees per unit (E/U) of the OU

is more numerous than the FU for all the levels of the analysis. We note that the differences between E/U in the OU and the FU are very small.

The superiority at the level of the whole population is 14%, and a maximum of 16% in the single-channel strategy.

Ranks analysis: from the analysis of the E/U, highlights the fact that a very significant number of chains show ties, which means that average number of employees is the same in both OU and FU. The ties reach a 48% of the total population. The number of chains in which the E/U of the OU outnumber the FU is, for this indicator, also pretty similar for all the levels of study. For the whole sample, it is a 45%.

5. Discussion

This research had the aim to answer the following question: which of the two types of establishment turns out to be more efficient, the owned or the franchised units, in the Spanish system of franchise? We can say that the response to this target question is the following one: *In the Spanish System of Franchise, the owned units are more efficient than the franchised units.*

To arrive to this idea, we are supported by the investigation we carried out where we used three indicators obtained for each one of the chains of the whole population of franchises in Spain: average sales per unit, average sales per employee and average number of employees per unit. The empiric work that has been carried out brings to light, that without a doubt, the S/U and the S/E are more efficient in the OU than in the FU. The OU uses more staff than the FU to achieve those sales, although this can be due to circumstances such as a higher motivation and/or larger working hours of the franchisees. Despite these reasons, the percentage difference of the staff between OU and FU is significantly inferior to the existent differences among S/U and S/E between OU and FU (see [Tables 1–3](#)). Therefore, the global result of the three variables considered in this study confirms a higher efficiency and performance of the OU when compared to the FU.

These conclusions are valid not only at the level of the whole population of chains that operate in Spain but also at the level of the distribution strategy, that can be either single-channel or dual-channel strategy. These results would be in line with the scarcity of resources theory and the signals theory, but they disagree with the agency theory foundations.

This study reaffirms in a compelling way the conclusions of the investigation of [Díez et al. \(2008\)](#), what allows us to claim that the principal conclusion is solid. We must also emphasize that in the precedent paper the authors used a convenience sample that contained the Spanish franchises with a higher turnover. Therefore, the sample of the 2008-study was more homogenous than this which contains all the franchises, both the big-sized ones and the smaller ones, and consequently, the differences on sales, employees and establishments are bigger.

In order to confirm these conclusions it would be useful to access complementary information of other variables such as: the size of the OU and FU; the training and qualification; the wage costs of the employees of the OU and FU; the working hours of the own staff and franchisees; the costs of the commercial establishment of the OU and FU; the location of the OU and FU, provided that the OU generally tend to be in better venues (centric location in great cities, higher population density; higher population rent; higher population in the area, etc.).

In the Spanish franchise, small chains with only a few units are the most common. They also have less employees, less sales rates and so on. Therefore, there is a mixture of small chains and bigger well-established chains. This adds a lot of dynamism to the system, based on the coexistence of some consolidated franchises and an

important number of new chains that are newly introduced to the system. The Spanish franchises have been, on average, 14 years franchising, a 13% of franchisors have been operating in franchise for more than twenty years, and on the opposite side, 9% of the franchises do not exceed 4 years of existence.

The figures show that the Spanish franchises follow two different strategies. The majority adopt the single-channel system, meaning that they only operate through franchised units, more precisely the 66% if we consider as maximum 5 owned units as pilot establishments. 62% if we consider up to 4 owned units, and 56% if we use 3 or less owned unit as a demarcation criterion. The rest of franchisors would adopt a mixed-strategy with both owned and franchised units.

The fact that there are different strategies, which was noted by [Díez et al. \(2008\)](#), should have its correspondence with different research papers. This is investigation that only uses franchises that adopt one of these general strategies, a single or dual channel system. Nevertheless, we have not found any research paper in this line. The possibility to replicate the investigations carried out following this orientation could prove to be really useful.

From the point of view of franchise selection, to answer the following question is interesting: which distribution strategy can be more secure for a potential franchisee, a chain that operates only with FU or a chain that operates with both OU and FU? Based on the following statement “It is for this reason, that as a general rule, it is always recommended and it is safer for the franchisees to adhere themselves to franchise systems that only operate with franchised units rather to a dual-channel or mixed system” ([Díez et al., 2008](#)). We do agree with this statement but a nuance should be introduced. If we take a closer look to [Tables 1 and 2](#) with regard to the single-channel strategy, we can observe that the differences between S/U (75%), and S/E (18%) of the OU and FU, are the highest for all the levels of study. In the single-channel strategy, the owned establishment has the function to be pilot establishments in which the know-how is tested, as well as the launch of new products and the configuration of the new owned units, etc. The results between OU and FU should be similar or even in favor of the FU. Therefore, we do not comprehend the reason of the wide differences in favor of the FU, except for the fact that we could set our minds to the possibility that some franchisors behave in a wrong way. Admitting franchisees without a rigorous selection, or without the adequate training for the franchisees and their staff, or without requiring and adequate location of franchisee establishments.

6. Conclusions

In the dual-channel strategy it would be justified that the owned units obtain better results than the franchised ones. In the sense that the behavior of a lot of franchisors could be to keep as owned ones the establishments with better result prospects and to make, the riskiest ones or the ones with lower perspectives, franchised units. Nevertheless, although there are also differences in favor of the owned units, these differences are very inferior, 20% in the case of S/E and 11% on the S/E. Which can result more logical and even more in favor to the franchisees in the single-channel strategy. A study of the cases that follow either a single-channel or dual-channel strategy would be interesting to investigate the reasons for the considerations we have referred to in this research paper.

From the point of view of the managerial implications, this work allows to offer a clear recommendation to the franchisors. If a franchisor has the necessary resources to expand its business, once it has consolidated the firm in the market, it could progressively aim to reduce the percentage of franchised units in favor of owned. Reasons for efficiency so advise.

There are two main limitations of this study. The results are valid only for the total of franchisors that operate in Spain, it would be interesting to replicate the study in other countries. In addition, there is a lack of data at the chain level of costs, profits, etc., for own and franchised units of each franchise.

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