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Abstract

Many retailers use the Internet not only to provide final customers with information about their products/services, but also to allow these final customers to buy their products/services online. In the particular case of franchising, franchisors and franchisees can create their own websites, which may raise some issues, mostly in terms of uniformity and encroachment. The aim of this paper is to characterize franchisors' e-commerce strategies by studying their website functionality. Franchisors can use their website to facilitate consumer search. They can also provide content and tools to promote online purchasing (e.g., promotion codes, online payment, delivery options). Why are some franchisor websites more "search oriented"? What are the factors that influence the provision of informational tools and/or transactional tools? This empirical study is based on a detailed observation of 130 e-commerce websites of franchisors operating their chains in the French market. Results of the three-stage least square regression models (3SLS) show that the percentage of company-owned stores within a chain has a significant and positive impact on the range of "purchase online" functionality and a neutral effect on the range of "search online" functionality. Moreover, the two types of functionality appear to be complementary on franchisor websites. Finally, in more mature franchise chains, franchisors who own a large proportion of stores are less able to exert their decision power and expand the range of online purchase functionality.

Keywords

Franchising, e-commerce, encroachment, synergies, search online, purchase online.

1. INTRODUCTION

Many retailers have an online presence through a website, a Facebook page or a Twitter account. As well as for other functions (e.g., employee recruitment), retailers use the Internet to communicate with their current and potential customers and to provide them with information about their products and/or services. They can also use their websites as a new distribution channel – complementary to the physical stores – to sell their products and/or services online. In Europe, "e-commerce is the fastest growing retail market"[1] with online sales that are expected to grow by 18.4% from €156.28 billion in 2014 to €185.39 billion in 2015, reaching €219.44 billion in 2016 (Center for Retail Research 2015). Even the European Commission has highlighted the importance of e-commerce by asserting – in a Commission release on April 20, 2010, which presented new regulations on vertical agreements – that "[t]he Regulation and accompanying Guidelines take into account the development, in the last 10 years, of the Internet as a force for online sales and for cross-border commerce, something that the Commission wants to promote as it increases consumer choice and price competition," or – in the 2010 guidelines – that "[t]he internet is a powerful tool to reach a greater number and variety of customers than by more traditional sales methods."

E-commerce is also growing in franchising (Cedrola and Memmo 2009). Franchising is "a contractual arrangement between two independent firms, whereby the franchisee pays the franchisor for the right to sell the franchisor's product and/or the right to use his trademark at a given place and for a certain period of time […]. [T]he relationship between franchisor and franchisees "includes not only the product, service, and trademark, but the entire business format itself – a marketing strategy and plan, operating manuals and standards, quality

[1] http://www.retailresearch.org/onlineretailing.php. By Europe, they take into account the UK, Germany, France, Sweden, The Netherlands, Italy, Poland and Spain.

control, and continuing two-way communication […]" (Lafontaine 1992). Franchising is growing in most countries and most industries including retailing and services.

Nevertheless, selling online, in the case of franchising, has not come about without incurring some conflicts between franchisors and franchisees and sometimes among the franchisees themselves, especially when franchisees are granted an exclusive territory, i.e., "a geographical area in which the franchisor agrees not to add any other outlet, either franchised or company owned" (Azoulay and Shane 2001). According to the European Commission, franchisors (as well as franchisees) are allowed to sell online even in a context of exclusive territories. However, some believe that operating an e-commerce website may risk "cannibalizing" the sales of physical stores (e.g., Kalnins 2004; Fontenot et al. 2006; Branellec and Perrigot 2013; Cliquet and Voropanova forthcoming).

Despite the growing importance of – and the potential issues raised by – e-commerce in franchising, the literature on e-commerce in franchising remains scarce. A few scholars have looked at the transactional capability of franchisor websites and highlighted the determinants of e-commerce strategies, mainly in terms of chain characteristics (e.g., Perrigot and Pénard 2013; Cliquet and Voropanova forthcoming). For instance, the percentage of company-owned stores within a chain has been found to be a determinant of an e-commerce strategy in several empirical studies (Perrigot and Pénard 2013; Cliquet and Voropanova forthcoming). A few others have looked at the European regulation and its impact on practices and conflicts linked to franchisor and franchisee e-commerce strategies (e.g., Branellec and Perrigot 2013; Perrigot et al. 2013a; Perrigot and Basset 2015). They have mainly examined the general rules applicable to the area of e-commerce including franchisor and franchisee freedom to create an e-commerce website, as well as the requirements for selling online in terms of website presentation and functioning.

The aim of this paper is to characterize franchisors' e-commerce strategies by studying their website functionality. Franchisors can use their website to facilitate consumer search (e.g., description of the products/services, pictures, zoom option, other customer ratings). They can also provide content and tools to promote online purchasing (e.g., promotion codes, online payment, delivery options). Why are some franchisors' websites more "search oriented?" What are the factors that influence the provision of informational tools and/or transactional tools? In our paper, we offer a new perspective on the issue of e-commerce in franchising. We do not study e-commerce strategy as a binary decision (i.e., whether to have a transactional website or not) as most previous research has done. Rather, we analyze it as a multivariate (and multipurpose) choice in terms of website functionality. Moreover, we do not only explore the encroachement effects, but also the synergy effects between the offline and online channels (i.e., physical stores and website), in link with chain characteristics and more specifically the percentage of company-owned stores within a chain. Our research questions are the following:

1. What is the set of content and services provided by a franchisor website and what is their purpose (i.e., to help Internet users find information or purchase online)?
2. Which chain characteristics can explain a franchisor's choice to provide more or less functionality related to search and transaction processes? Is it linked to the percentage of company-owned stores within the chain (i.e., the balance of power between the franchisor and the franchisees)?
3. What are the interdependencies between online search functionality and online purchase functionality?

Our empirical study is based on an in-depth analysis of 130 e-commerce websites of franchisors operating their businesses in the retail and service sectors in France. We focus on the French market for three reasons. First, Dant (2008) and Dant et al. (2008) encouraged

scholars to look at markets outside the Anglo-Saxon ones. Second, France is the largest market in Europe in terms of franchising, more specifically in terms of number of franchisors. There are 1,796 franchisors with 68,171 franchised stores generating 51.45 billion euros of total sales (French Franchise Federation 2015). Third, in France, as in Europe, the European legislation applies to and has an impact on e-commerce practices (Branellec and Perrigot 2013; Perrigot et al. 2013a; Perrigot and Basset 2015).

The main results of our three-stage least square regression models are as follows. We find that the percentage of company-owned stores within the chain only has a significant and positive impact on the range of "purchase online" functionality. However, this type of functionality is positively correlated with the range of "research online" functionality available on the website. Our research contributes to the literature on franchising and on e-commerce strategies in the franchise sector. It also contributes to the practice by providing an overview of franchisor websites' functionality, their purpose and interdependencies.

In Section 2, we review the existing literature on e-commerce in franchising. Research hypotheses are formulated in Section 3. The methodology is described in Section 4. Results are presented and discussed in sections 5 and 6, respectively.

2. LITERATURE REVIEW

Dixon and Quinn (2004), in their exploratory study of e-commerce in the franchise sector, described the content and type of functionality available on 240 franchisor websites in the UK. They found that over 10% of franchisor websites enabled customers to order online but not to pay online and that over 15% proposed both online ordering and payment. They also looked at percentages of franchisors proposing facilities to order, to order but not to pay and to order and pay via the website according to the industries.

Young et al. (2004) analyzed 200 websites of franchisors operating in the US. They looked at three kinds of information: the presence of a store locator, the use of online consumer sales promotion activities and the possibility of purchasing online from the franchisor or the franchisees' websites. Regarding this latter activity, i.e., e-commerce, they found that 32% of franchisor websites propose online sales by either the franchisor or the franchisees. Using t-tests, they found some significant differences in terms of e-commerce according to chain size and industry. E-commerce is more likely to be proposed in smaller chains and in the service sector. In their study, the percentage of franchised stores within a chain has no significant relationship to online sales.

Rao and Frazer (2006) explored franchisor marketing activities on their websites. Their empirical study dealt with a sample of 202 websites of franchisors operating their businesses in Australia. According to their findings dealing with e-commerce, only 11.4% of franchisor websites allow Internet users to buy online. They did not find any significant differences in terms of e-commerce according to chain age, chain size and industry.

Cliquet et al. (2010) analyzed the e-commerce strategy of 166 retail franchisors in the US market. They found that the percentage of franchised stores within a chain had a negative impact on the e-commerce strategy.

Cedrola and Memmo (2012) looked at the use of the Internet and the areas of improvement for franchising. Their sample included 305 websites of franchisors operating their business in twenty countries (e.g., Argentina, Australia, Brazil, Canada, various European countries, Mexico, Russia, US). Concerning e-commerce, 21% of franchisor websites propose online sales with high percentages in the services (29.7%), specialized food retailing (29%), hotels/restaurants and personal care (27%), and household articles (25%).

Moreover, 10.2% of franchisor websites direct the contacts to the franchisee websites for online purchases.

Perrigot and Pénard (2013) analyzed the presence of transactional capabilities on 486 US franchisor websites. They found that 20% of franchisors had adopted an e-commerce strategy. They also pointed out that the percentage of company-owned stores and chain size had a positive impact on the e-commerce strategy, whereas chain age had a negative impact. They also found that e-commerce was more likely to be used in the retail sector and the hotel/restaurant sector.

Cliquet and Voropanova (forthcoming), basing their explanations on encroachment, observed 180 websites of franchisors operating their chains in the retail sector in the French market. They found that the lower the percentage of franchised stores, the more likely the website is transactional. They did not find any impact of overseas presence and minimal trade areas.

3. RESEARCH HYPOTHESES

According to Emerson (2010), encroachment, corresponding to "the phenomenon where the franchisor has authorized a new franchise or established a company-owned unit within an existing franchise's market area," is the ''number one problem'' for franchisees and "the issue most in need of a just resolution" for most franchise chains. The issue of encroachment can be transposed to the Internet when a franchisor (or a franchisee) opens an e-commerce website. Indeed, franchisees can consider their franchisor and/or other franchisees of the chain operating an e-commerce websites as direct competitors in their territory, inflicting losses in terms of sales and income. In this case, Cliquet and Voropanova (forthcoming) explained that "through e-encroachement, a franchisor can capture franchisees' sales as if it were opening a huge company-owned outlet covering all territories." Franchisees can thus react negatively if

e-commerce websites are opened by the franchisor and/or other franchisees. According to the European regulation, the Internet is no longer considered to be a physical point of sale, but a sales protocol. As such, creating a transactional website at the behest of a franchisor or one of its franchisees no longer constitutes a violation within the scope of territorial exclusivity. Thus conflicts can emerge, as was the case for *Flora Partner – Jardin des fleurs*. Branellec and Perrigot (2013) explained that the origin of this conflict relied on the fact that three franchisees were not satisfied with the opening of an e-commerce website by their franchisor. They considered it as unfair competition on their exclusive territories granted by their franchisor when they signed the contract.

In the case of a company-owned chain or a plural form chain, managers of company-owned stores are employees of the franchisor headquarters and have no legitimate reason to oppose franchisors' e-commerce strategies. Moreover, it is easier to require that managers of company-owned stores rather than the franchisees participate in the delivery process of products that are purchased online. Usually, the products can be delivered to customers' homes for additional fees or to the closest store for free. Product returns, in the case of wrong sizes or default, for instance, are also easier to organize in company-owned stores than in franchised stores. Indeed, franchisees may consider these services as extra-tasks, time consuming and wasteful without any added value for them; in brief, they may consider them not to be their business. As a result, the franchisor decision to sell online is likely to depend on the balance of power between the franchisor and the franchisees. If most stores are company-owned, franchisors can develop their transactional websites without facing strong opposition from franchisees. Conversely, if the percentage of franchised stores within the chain is high (i.e., the percentage of company-owned stores within the chain is low), the franchisor will have less bargaining power and more difficulty selling online given the

franchisees' hostility towards a transactional website that is often perceived as unfair competition.

Hypothesis 1: The percentage of company-owned stores within the chain has a positive impact on the range of functionality provided on the franchisor website to help consumers purchase online.

A large body of literature has attempted to explain the interdependencies between offline and online channels (Young-Hyuk et al. 2008). Offline and online channels can both complement or act as substitutes for each other. They also find evidence of various patterns of consumer behavior: online search and online purchase/online search and offline purchase/offline search and online purchase. This suggests that a transactional website does not necessarily cannibalize offline sales and may provide synergy with the physical stores. For instance, some consumers can search online and then buy in a store where they can see the product and test it. Consequently, the provision of website functionality that helps consumers search online can benefit both company-owned stores and franchised stores, and the decision to offer this type of functionality is likely to be independent of the franchisor's bargaining power.

Hypothesis 2: The percentage of company-owned stores within the chain has no impact on the range of functionality provided on a franchisor website to help consumers search online.

Finally, we expect that there is a positive relationship between the range of purchase functionality and the range of search functionality. If franchisors want to sell more on their websites, they need to provide more information and search tools to attract Internet users and convert them into buyers.

Hypothesis 3: The range of search functionality increases with the range of purchase functionality provided on a franchisor's website.

4. DATA AND METHODOLOGY

4.1. Description of the sample

To test our research hypotheses, we focus on the e-commerce websites of franchisors running their businesses in the French market. France is the largest market in Europe in terms of franchising, more specifically in terms of number of franchisors. There are 1,796 franchisors with 68,171 franchised stores generating 51.45 billion euros of total sales (French Franchise Federation 2015). Franchising is well developed in both retailing (food, clothes, shoes and accessories, home equipment, specialized retailing, etc.) and services (services for cars, real estate, hotels, fast food and traditional restaurants, home services, hairdressing and aesthetics, services for companies, etc.). French franchising is also well-known at the international level because of famous French brands that are present in many foreign markets, such as *Brioche Dorée*, *Ibis-Mercure-Novotel*, *Morgan*, *Yves Rocher*, etc. As well, France is an attractive market for foreign franchisors, such as *KFC*, *McDonald's*, *Pizza Hut*, *Subway*, etc. Regarding e-commerce in the French market, 97% of 200 surveyed franchisors explain that their websites are used to promote their brands, their products and their services. In the same line, 56% of these franchisors mention that they sell their products and/or services through their websites.[2]

Data stems from the franchise directory, "2011 Toute la Franchise, les Chiffres, les textes, les Réseaux," published by the French Franchise Federation. This data source displays the main characteristics of 443 franchise chains present in the French market. It has been used in previous research on franchising in France (e.g., Barthélemy 2008; Dant et al. 2008;

[2] Source: Synthèse 2014 enquête annuelle de la franchise 2015.

El-Akremi et al. 2011) and has proven to be a reliable source of information. Our sample includes all the chains that have at least one franchised store[3] and that have an e-commerce website, i.e., 130 franchise chains. An e-commerce website is a website that allows Internet users to buy, order or book a product or a service online. Our sampled franchise chains cover both industries: retailing and services. Indeed, even in the service industry, franchisors can have an e-commerce website, e.g., online booking for hotel chains, online ordering for fast-food chains, etc. Using this directory and the *Google* search engine, we retrieved the website URL of each of the 130 sampled chains.

4.2. Description of the variables

4.2.1. Content of franchisor websites

The in-depth analysis of the 130 websites was conducted in spring 2011. We used a codebook built from a review of the existing literature on e-commerce (e.g., Dixon and Quinn 2004; Lok Yeung and Ming-Te Lu 2004; Young et al. 2004; Rao and Frazer 2006; Cedrola and Memmo 2009), benchmarking of e-commerce websites and insights from franchising experts. More specifically, we classified the functionality of these e-commerce websites into two main categories: online search and online purchase functionality. This classification appears to be relevant for our investigation of franchisor e-commerce websites. Secondly, we ran a preliminary observation on a sample of e-commerce websites of US and French franchisors. This step of benchmarking allowed us to list the main functionality available on e-commerce websites. Thirdly, we organized two focus groups with franchising experts to validate and complete this list of functionality classified into the two following categories: online search and online purchase.

[3] In the directory, some nascent franchise chains that have a few company-owned stores but no franchised ones are included.

Online search functionality score corresponds to the range of information and services offered to facilitate consumer search. It is measured as the sum of zeros (if not present) and one (if present) for the fifteen types of functionality listed in Table 1 divided by 15 to get a score between 0 and 1. Online search has a mean of 0.46 (standard deviation: 0.15).

Insert Table 1 about here

Online purchase functionality score corresponds to the range of tools and services offered to facilitate online purchasing, It is measured as the sum of zeros (if not present) and one (if present) for the twenty types of functionality listed in Table 2 divided by 20 to get a score between 0 and 1. Online purchase has a mean of 0.41 (standard deviation: 0.16).

Insert Table 2 about here

The frequencies of each functionality (with online search or online purchase purpose) on the franchisor websites are provided in Table 3. Table 3 also displays a comparison of the average percentage of company-owned stores within the chain according to the presence or not of the functionality on the e-commerce website (t-tests and Levene statistics). We observe that for half of online purchase functionality, the percentage of company-owned stores within a chain is significantly different and systematically higher when this functionality is offered (e.g., promotional codes, discount, online payment). For online search functionality, in most cases, the percentage of company-owned stores within a chain is not significantly different with and without functionality.

Insert Table 3 about here

4.2.2 Franchise chain characteristics

The percentage of company-owned (PCO) stores within a chain in the French market is our main variable of interest (see hypotheses 1 and 2). For our sampled chains, this percentage averages 39.83% (standard deviation: 28.38). Table 1 compares the "percentage of company-owned stores within a chain" between the websites that provide each of the listed functionality and the websites that do not have this feature.

In the regression models, we control for some chains' characteristics, i.e., chain age, chain size, industry and international dimension. These variables are commonly used in the empirical literature on franchising. Chain age is a proxy for franchisors' resources and experiences (Castrogiovanni, Combs and Justis 2006; Combs and Castrogiovanni 1994; Dant and Kaufmann 2003; Perrigot and Pénard 2013), but it also indicates whether contracts have been designed before or after the advent of e-commerce. The mean age of our sampled chains is 17.42 years (standard deviation: 14.33). Chain size is a proxy for resources and also brand image (Lafontaine 1992; Baucus et al. 1993; Barthélemy 2008; Perrigot et al. 2013c). Chain size refers to the number of franchised and company-owned stores within a chain in the French market. The mean size of our sampled chains is 118.53 stores (standard deviation: 128.02). In addition to chain age and chain size, we control for the industry in which franchisors operate their businesses (retail chain coded 0 *versus* service chain coded 1) and for the international dimension of the chain (purely-domestic chain coded 0 *versus* international chain coded 1). In our sample, 37% of the chains are in the service industry and 60% of the chains are internationalized. Descriptive statistics and correlation values for these variables are displayed in Table 4.

4.2.3. Methodology

The franchisors' decisions to provide search and purchase functionality cannot be considered as independent choices. Moreover, the provision of product/service information and search tools is conditional on the decision to allow customers to purchase on the websites. If a franchisor wants to develop the online channel, it has to offer many services and functionality to facilitate product order, payment and delivery, but also to facilitate customer choice. PURCHASEONLINE, i.e., the range of functionality offered to purchase online, is an explanatory variable for SEARCHONLINE, i.e., the range of functionality offered to search online. The model that best fits the decision process of franchisors in the matter of website functionality is as follows:

$$PURCHASEONLINE = \alpha_0 + \alpha_1 PCO + \alpha_2 AGE + \alpha_3 SIZE + \alpha_4 INDUSTRY + \alpha_5 INTERNATIONALIZATION + \varepsilon_1 \quad \text{[equation 1]}$$

$$SEARCHONLINE = \beta_0 + \beta_1 PURCHASEONLINE + \beta_2 PCO + \beta_3 AGE + \beta_4 SIZE + \beta_5 INDUSTRY + \varepsilon_2 \quad \text{[equation 2]}$$

This system of equations cannot be estimated by ordinary least square (OLS) or seemingly unrelated regression (SUR) for the following reasons. First, we suspect that the two error terms are not independent: $Cov(\varepsilon_1, \varepsilon_2) \neq 0$. Moreover, the second equation has an endogenous variable (PURCHASEONLINE) on the right hand side (i.e., endogenous regressor). To deal with these two issues, we estimate the equation system using a three-stage least square regression model (3SLS).

The first stage of 3SLS consists of regressing PURCHASEONLINE on all the exogenous variables to derive the predicted values for this variable. In the second stage, each equation is estimated by OLS. For the second equation, we introduce the instrumented values

for PURCHASEONLINE. To avoid identification problems in the system, all the exogenous variables are common to the two equations, except one variable. This variable (INTERNATIONATIONALIZATION) is called the instrument and ensures that the second equation is exactly identified. The OLS regressions of the two equations allow us to obtain consistent estimates for the covariance matrix of the residuals. Finally, the third stage performs a General Least Square (GLS)-type estimation using the covariance matrix estimated in the second stage and with the instrumented values of PURCHASEONLINE in equation 2.

The percentage of company-owned stores within a chain allows us to test hypotheses 1 and 2. It measures the degree of centralization of a franchise chain and the decision power of a franchisor (the capacity to impose strategic choices on the franchisees). In the context of our study, our estimations will indicate whether the extent of company ownership has an influence on the strategic decisions to provide content and search tools, as well as purchase tools, controlling for other chains' characteristics (AGE, SIZE and INTERNATIONALIZATION). We expect a positive effect of the percentage of company-owned stores within a chain on the range of purchase functionality and a neutral effect on the range of search functionality.

We also want to test whether the effect of the percentage of company-owned stores within a chain is moderated by the age of the franchise chain. We estimate the same model, but we introduce the interaction variable "percentage of company-owned stores within a chain * chain age." We expect a negative coefficient associated with this interaction variable because in older franchise chains franchisors may have more difficulty imposing their views about the design and functionality of their websites and have to take into account the franchisees' reactions even if the percentage of company-owned stores is high. By contrast,

in a younger franchise chain, franchisors tend to concentrate more decision power and to make more discretionary decisions whatever the proportion of franchisees.

5. RESULTS

5.1. Model without interaction term

The model is satisfactory with a R-square value of 27.08 for the first equation and of 36.97 for the second equation. We first explain "purchase online." The results in Table 6 (first column) show that the percentage of company-owned stores within a chain has a significant and positive impact on the range of "online purchase" functionality (Coefficient = .0016; Standard error = .0004; Sig = .000). When the percentage of company-owned stores within a chain increases, the franchisor tends to offer more tools and services that will improve the online purchasing experience. Hypothesis 1 is thus confirmed.

As far as control variables are concerned, franchisors in the service industry are less likely to facilitate the purchasing process of their online customers than franchisors in the retail industry (Coefficient = - .1077; Standard error = .0269; Sig = .000).

Secondly, we explain "search online." The results in Table 6 (second column) show that "purchase online" has a significant and positive impact on the provision of content and search tools on the website (Coefficient = .4121; Standard error = .0691; Sig = .000). This indicates that search tools and purchase tools are complementary. Hypothesis 3 is thus confirmed. Moreover, the percentage of company-owned stores within a chain has no effect on the provision of search tools (the balance of power within a franchise chain has a neutral effect). This is consistent with hypothesis 2.

As far as control variables are concerned, chain size has a significant and positive impact on the provision of "online search" functionality (Coefficient = .0003; Standard error = .0000;

Sig = .001). The larger a chain is, the more search tools will be offered on the website. In large chains, consumers can more easily find information than in small chains.

Insert Table 6 about here

4.2. Model with interaction term

The model is satisfactory with a R-square value of 31.28 for the first equation and of 37.25 for the second equation. Table 6 (third column) shows that the percentage of company-owned stores within a chain has a significant and positive impact on the range of "online purchase" functionality offered on the transactional website (Coefficient = .0029; Standard error = .0006; Sig = .000). The higher the percentage of company-owned stores within a chain, the more the franchisor will encourage customers to purchase online. As far as control variables are concerned, chain age has a significant and positive impact on the range of "online purchase" functionality (Coefficient = .0031; Standard error = .0016; Sig = .048). The older a chain is, the more the franchisor will provide tools to facilitate the online buying process. Franchisors in the service industry are less likely to encourage customers to purchase online than franchisors in the retail industry (Coefficient = -.1036; Standard error = .0262; Sig = .000). International franchisors provide more purchase functionality than purely domestic franchisors (Coefficient = .0469; Standard error = .0266; Sig = .078). The interaction term "percentage of company-owned stores within a chain * chain age" has a significant and negative impact on purchase online (Coefficient = - .0000; Standard error = .0000; Sig = .006). This suggests that franchisors with more experience are less likely to develop and promote the online channel even if they control a lot of stores. Franchisees have more decision power or counterbalancing power in a mature franchise chain than in a young franchise chain. Franchisees can probably more easily prevent a franchisor from making decisions that are not favorable to their businesses (like creating an e-commerce website) even

if a large proportion of stores are company-owned. This is not as likely to be true in a young franchise chain where franchisees are not organized enough.

Concerning the provision of search functionality, results in Table 6 (fourth column) show that the range of "online purchase" functionality has a significant and positive impact on the content and search tools offered to consumers (Coefficient = .4188; Standard error = .0703; Sig = .000). This confirms the complementarities between these two categories of functionality. Moreover, neither the percentage of company-owned stores within a chain, nor the interaction variable "percentage of company-owned stores within a chain * chain age" are significant. As far as control variables are concerned, chain size has a significant and positive impact on the range of "online search" functionality (Coefficient = .0003; Standard error = .0000; Sig = .002).

6. DISCUSSION

6.1. Summary of findings

Regarding the range of "online purchase" functionality, we find that the percentage of company-owned stores within a chain has a significant and positive impact. When the percentage of company-owned stores within a chain increases, the franchisor is able to offer more tools or functionality that will improve consumers' online purchasing experiences. Secondly, the interaction term "percentage of company-owned stores within a chain * chain age" has a significant and negative impact on purchase online. This suggests that older franchisors are less likely to develop and promote the online channel even if they control a lot of stores. Thirdly, franchisors in the service industry provide less purchase functionality than franchisors in the retail industry.

We also find that the range of "online purchase" functionality has a significant and positive impact on the provision of information and search tools. The more a franchisor's strategy is focused on online sales, the more "online search" functionality will be offered. This suggests that search and purchase tools are perceived by franchisors as complementary. Finally, we notice that chain size has a significant and positive impact on the provision of "online search" functionality. In large chains, websites provide more information and search tools to consumers than in small chains.

6.2. Contributions to research

This research contributes to the existing literature in several ways. First, this paper builds on the literature dealing with the Internet in the franchise sector. Authors have looked at communication strategies on franchisor websites (Rao and Frazer 2006; Young et al. 2004; Perrigot et al. 2015), on franchisee websites (Perrigot et al. 2013a; 2013b) and on social media, such as Facebook (Perrigot et al. 2012). We enlarge this stream of literature by examining franchisors' communication towards their customers and potential customers on their websites, to help them search and/or purchase. Secondly, we contribute to the literature on e-commerce in franchising. More specifically, we build on the stream dealing with the adoption of e-commerce strategy by franchisors (e.g., Perrigot and Pénard 2013; Cliquet and Voropanova forthcoming). Contrary to previous research in which authors consider e-commerce strategy as a binary decision, we go further and look at the range of functionality provided on the transactional part of a website. We also look at the interdependencies between search and purchase functionality. Thirdly, this research contributes to the literature on plural form in franchising by showing the impact of the percentage of company-owned stores within a chain on the design of a franchisor's website. Fourthly, we considered the impact of the franchisor's bargaining power on the ecommerce strategy by taking into consideration the percentage of company-owned stores within the chain, as recently

recommended by Argyres and Bercovitz (2015) who mentioned that "bargaining power should be accounted for in studies of contract structure and relationship outcomes" (p. 811). Finally, it enlarges the literature on franchising in general by examining the practices of franchisors in both retail and service industries in contrast to many papers that focus on specific industries, mainly the hotel and restaurant industries (e.g., Michael 2002; Kalnins 2003; Kosová et al. 2013; Ater and Rigbi 2015). The focus on the French market is also of relevance; it answers a call from Dant (2008) and Dant et al. (2008) for more empirical studies outside the Anglo-Saxon countries.

5.3. Contributions to practice

This research contributes to the practice by offering franchisors a detailed overview of the content of franchisor websites. This can help them to optimize their websites in terms of content and functionality depending on whether they want to have a search-oriented website or a transactional website. Moreover, this paper allows franchisor experts and franchisors to identify the profiles or the main characteristics of the franchisors selling online. This research can also provide some insights for franchisee candidates who want or conversely do not want to join a franchise chain that may in the future implement an e-commerce strategy.

5.4. Limitations and tracks for future research

This research has some limitations and also offers some tracks for future research. First, using data available on the Internet, and more specifically observing website content, presents some shortcomings. This is only a snapshot of a particular time t and website contents may have evolved since this observation. Secondly, we only used Internet data, i.e., secondary data. Complementary approaches, either qualitative ones involving in-depth interviews with franchisors or quantitative ones involving questionnaire-based surveys on franchisors, could be very meaningful in order to obtain more insights on franchisor practices with regards to

designing their e-commerce websites. Third, we adopted a franchisor perspective, as much research pertaining to franchising has, but other approaches would be relevant as well. For instance, a customer perspective could be of interest so as to understand what they are expecting when buying online. The franchisee perspective could also be interesting in order to understand what they would like to see inserted on their franchisor websites. Fourth, our research deals with the French market only. Extending the empirical study to the European market would be relevant due to the fact that the EU regulation applies to any country in Europe (Perrigot and Basset 2015).

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Languages	The website can be consulted in several languages.
Description	The website displays a description of the company's activity.
History	The website presents the company's history.
Newsletter	The website asks if the customer would like to receive the newsletter without enrollment obligation.
FAQ section	The website proposes online assistance using a FAQ section.
Comments	Internet users are given the possibility to leave "text" comments.
Ratings	Internet users are given the possibility to rate their experience.
Smartphone	The company has a smartphone application.
Text description	A "text" description of the product/service is available on the website.
Image description	A picture of the product/service is available on the website.
Actual conditions	The product/service is presented under actual conditions (e.g., clothing worn by a model).
Zoom	It is possible to zoom in on the product/service.
Colors	If the product/service is available in several colors, visualization is possible in each of these colors.
Search bar	The website features a search bar.
New collection	A "new collection" heading is presented on the website.

Table 1: Website functionality with online search purpose

Personal space	The website proposes creating a personal space for each customer.
Wish list	The website offers the possibility of creating a wish list.
Choice by category	Items can be selected according to various categories.
Top selling items	A “top selling items” heading is presented on the website.
Reserve/book	It is possible to make a reservation or book online.
Inventory status	Inventory status may be checked on the website.
Shopping cart	The website proposes composing an individual shopping cart.
Customization	The website proposes customizing the product/service at the time of ordering.
Cross-selling	The website relies upon cross-selling recommendations.
Good deals	A “good deals” heading is available on the website.
Discount	The discount calculation is displayed when placing the order.
Online sales discounts	The website proposes online sales discounts for online purchases.
Promotional codes	The website features a tab reserved for entering promotional codes.
Online payment	The website proposes an online payment facility.

Secure payment system	The website offers a secure payment system.
Express delivery	The website proposes a 24- or 48-hour delivery schedule.
Free delivery	Delivery is always offered free of charge.
Order track	It is possible for customers to track their orders in real time.
Telephone assistance	Telephone assistance is provided (dialing charges apply).
“Satisfied or reimbursed” guarantee	The website proposes a purchase contingent upon the “satisfied or reimbursed” guarantee.

Table 2: Website functionality with online purchase purpose

Functionality	Description	Present on the website [in # out of 130]	Present on the website [in %]	Percentage of company-owned stores when the functionality is not present [Mean(standard deviation)]	Percentage of company-owned stores when the functionality is present [Mean(standard deviation)]
Online search					
Languages	The website can be consulted in several languages.	55	42.3	38.63(29.20)	41.46(27.40)
Description	The website displays a description of the company's activity.	100	76.9	41.75(26.14)	39.251(29.12)
History	The website presents the company's history.	36	27.7	38.17(28.12)	44.16(28.98)
Newsletter	The website asks if the customer would like to receive the newsletter without enrollment obligation.	81	62.3	35.75(30.09)	42.29(27.18)
FAQ section	The website proposes online assistance using a FAQ section.	55	42.3	36.36(29.04)	44.56(26.99)
Comments	Internet users are given the possibility to leave "text" comments.	16	12.3	39.58(28.10)	41.57(31.22)
Ratings	Internet users are given the possibility to rate their experience.	14	10.8	38.91(28.16)	47.46(30.14)
Smartphone **	The company has a smartphone application.	14	10.8	41.88(28.03)	22.79(26.25)
Text description	A "text" description of the product/service is available on the website.	121	93.1	37.69(29.82)	39.99(28.39)
Image description	A picture of the product/service is available on the website.	123	94.6	39.45(32.21)	39.85(28.29)
Actual conditions ***	The product/service is presented under actual conditions (e.g., clothing worn by a model).	18	13.8	36.98(28.15)	57.56 (23.44)

Zoom **	It is possible to zoom in on the product/service.	74	56.9	32.52(28.89)	45.36(26.88)
Colors ***	If the product/service is available in several colors, visualization is possible in each of these colors.	37	28.5	35.81(28.86)	49.93(24.72)
Search bar	The website features a search bar	102	78.5	41.91(30.10)	39.26(28.02)
New collection **	A “new collection” heading is presented on the website.	46	35.4	36.005(28.29)	46.82(27.48)
Online purchase					
Personal space	The website proposes creating a personal space for each customer	114	87.7	38.23(31.28)	40.05(28.09)
Wishlist	The website offers the possibility of creating a wish list.	31	23.8	38.34(27.31)	44.58(31.57)
Choice by category	Items can be selected according to various categories.	82	63.1	36.24(27.86)	41.93(28.64)
Top selling items	A “top selling items” heading is presented on the website.	20	15.4	39.13(28.67)	43.68(27.10)
Reserve/book	It is possible to reserve/book an item online.	31	23.8	41.56(28.40)	34.31(28.06)
Inventory status**	Inventory status may be consulted on the website.	34	26.2	36.50 (27.73)	49.21(28.49)
Shopping cart***	The website proposes composing an individual shopping cart.	98	75.4	26.47 (26.72)	44.19(27.66)
Customization	The website proposes customizing the product/service at the time of ordering.	13	10	40.52 (28.55)	33.57(27.01)
Cross-selling**	The website relies upon cross-selling recommendations.	68	52.3	34.15 (28.99)	45.00(26.99)
Good deals	A “good deals” heading is available on the website.	49	37.7	39.31(29.35)	40.69(26.97)
Discount***	The discount calculation is displayed when placing the order.	70	53.8	29.69(26.53)	48.52(27.16)
Online sales discounts*	The website proposes online sales discounts for online purchases.	14	10.8	38.34(28.03)	52.14(29.28)
Promotional codes ***	The website features a tab reserved for entering promotional codes.	69	53.1	28.93(26.29)	49.46(26.78)

Online payment ***	The website proposes an online payment facility.	102	78.5	24.15(27.18)	44.13(27.28)
Secure payment system **	The website offers a secure payment system.	109	83.8	27.21(29.28)	42.26(27.68)
Express delivery	The website proposes a 24- or 48-hour delivery schedule.	22	16.9	40.84(28.90)	34.86(25.70)
Free delivery	Delivery is always offered free of charge	10	7.7	40.52(28.19)	31.56(30.85)
Order track ***	It is possible for customers to track their orders in real time.	52	40	33.98(27.67)	48.59(27.39)
Telephone assistance	Telephone assistance is provided (dialing charges apply).	65	50	37.36(29.62)	42.29(27.09)
“Satisfied or reimbursed” guarantee***	The website proposes a purchase contingent upon the “satisfied or reimbursed” guarantee.	21	16.2	35.25(27.42)	63.57(20.72)

The column “feature,” *, **, *** means that differences are significant at 0.10, 0.05, 0.01 levels. respectively.

Table 3

Provision of purchase and search functionality: Comparison of the average percentage of company-owned stores within a chain according to the presence or not of this functionality on the e-commerce website

t-tests and Levene statistics

Variables		N	Min	Max	Mean	SD	0	1	2	4	5	6	7	8
1.	Purchase online functionality score	130	.050	.800	.4130	.1613	.957***	1.000						
2.	Search online functionality score	130	.07	.80	.4574	.1530	.557***	.552***	1.000					
4.	Percentage of company-owned stores	130	.00	94.29	39.8272	28.3791	.362***	.373***	.206**	1.000				
5.	Chain age	130	1	86	17.42	14.325	.113	.093	.169**	.029***	1.000			
6.	Chain size	130	3	561	118.53	128.018	.188**	.176**	.347***	.087*	.378***	1.000		
7.	Industry	130	0	1	.37	.484								
8.	International dimension	122	0	1	.60	.492								

*: $p < .10$ **: $p < .05$ ***: $p < .01$

Table 4
Summary statistics and correlation matrix for website functionality and chain characteristics

	Model without interaction term						Model with interaction term					
Variables	Purchase online			Search online			Purchase online			Search online		
	Coef	Std. Err.	Sig	Coef	Std. Err.	Sig	Coef	Std. Err.	Sig	Coef	Std. Err.	Sig
Purchase online				0.4121	0.0691	0.000				0.4188	0.0703	0.000
Percentage of company-owned stores	0.0016	0.0004	0.000	0.0000	0.0004	0.843	0.0029	0.0006	0.000	- 0.0002	0.00063	0.727
Chain age	- 0.0004	0.0009	0.671	0.0002	0.0008	0.779	0.0031	0.0016	0.048	- 0.0005	0.0014	0.697
Chain size	0.0001	0.0001	0.204	0.00031	0.0000	0.001	0.0001	0.0001	0.124	0.0003	0.0000	0.002
Industry	- 0.1077	0.0269	0.000				- 0.1036	0.0262	0.000			
International dimension	0.0403	0.0273	0.140				0.0469	0.0266	0.078			
Percentage of company-owned stores X Chain age							- 0.0000	0.0000	0.006	0.0000	0.0000	0.511
Constant	0.3496	0.0323	0.000	0.2500	0.0307	0.000	0.2847	0.0394	0.000	0.2615	0.0347	0.000
"R-square"	0.2708			0.3697			0.3128			0.3725		
Chi2	45.66			65.29			55.94			65.66		
Sig	0.000			0.000			0.000			0.000		

Table 6: Three-stage least-square regression models