Accounting and financial antecedents of corporate spin-offs in the lodging industry

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ABSTRACT

Lodging stocks have been gaining more attention from investors, likely due to the growth of the tourism sector (WTTC, 2017). However, limited research focuses on the financial behaviors of this market and prolific trends. The recent spin-offs of the timeshare business in major hotel chains, such as Marriott, Hilton, Starwood, and Wyndham have exposed an important research gap. Investors may know the reasons behind spin-offs, but they may also be able to predict them if they recognize certain conditions, namely, a firm will spin-off if a combination of conditions is met. Thus, this research provides six configurations of accounting and financial variables that lead to a spin-off in the lodging industry. Findings indicate that depending on the motivation behind a spin-off, certain combinations of variables can be recognized, and a spin-off could be predicted. Practical implications are then clear, as stock investment decisions may be influenced by this prediction.

1. Introduction

More and more attention is being directed to the lodging industry. In fact, according to Oak and Dalbor (2008), investors are increasing their preferences for lodging stocks. However, undervaluation of lodging stocks is a long-standing issue for this industry, which scholars believe may be a result of the lack of understanding of the lodging business (Lee and Upneja, 2007). Thus, more research is crucial to provide investors with the necessary information to make informed decisions regarding their lodging stock investments.

In the last decade, an emerging trend has been observed in this industry. Four major hotel chains have spun-off a component of their business, mainly to separate their timeshare business from the traditional lodging and franchising business (De La Merced, 2015). The motivations and effects behind such operations are known and widely studied in the literature (Boreiko and Murgia, 2016; Chai et al., 2018; Prezas and Simonyan, 2015). For instance, various authors defend that after a spin-off, the firm value in the original firm increases, and that firms use such mechanisms to improve its stock market performance (Chai et al., 2018). However, little research exists explaining the accounting and financial antecedents that need to be present for a firm to engage in a spin-off. That is, a firm may have a motive and a desire to spin-off, but they may not have the necessary accounting and financial conditions to engage in such operations. Hence, using the timeshare

spin-offs as an example, this paper aims to identify the possible configurations of accounting and financial variables that lead to a spin-off in the lodging industry, since, for investors, it is critical to foresee such activities.

The findings of this research suggest six different combinations of accounting and financial variables that lead to a spin-off, and five others that lead to the absence of a spin-off. Additionally, results indicate that the different combinations of variables are linked to the different motivations for a spin-off that were previously suggested by the literature, such as the need to raise capital, the intention to spin-off underperforming assets or larger businesses, or a change in strategy such as a shift in focus to a fee-oriented strategy or *Asset-Light and Fee-Oriented* (ALFO) strategy (Sohn et al., 2013). In particular, this study found that the combinations of accounting and financial variables of a spin-off differ according to the preferred corporate end goal. Namely, the variables of underperforming assets will be different from those that occur as result of a capital seeking strategy, or from the results from an ALFO strategy. Thus, this research not only provides a relevant contribution to the literature by developing previous arguments, such as the ALFO strategy suggested by Sohn et al. (2013), or the body of research on motivations for corporate spin-offs, but it also provides solid pratical implications. The primary contribution is that it profiles the different paths for a lodging corporation's spin-off in terms of accounting and financial variables that may assist in the prediction of a

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spin-off.

The present paper is structured as follows: the first section is dedicated to the literature review on corporate spin-offs and the lodging industry, and on the development of the research framework behind this study. It is followed by the methodology section in which the data collection techniques and analysis procedures are detailed. Then, the results are presented and discussed. Finally, the conclusions and the implications are detailed in two separate sections.

2. Literature review

2.1. Corporate spin-offs

A corporate spin-off is one of several ways in which a company may divest a certain asset (a unit, division, or subsidiary) (Chai et al., 2018). In a spin-off, a new publicly traded company is created separately from the parent company, but its shares are distributed to shareholders of the parent firm on a pro rata basis (Prezas and Simonyan, 2015). One stream of the literature has focused on the determinants of the choice between the different corporate divestitures' forms, such as a spin-off, sell-out or carve-out e.g. Bergh et al. (2008); Prezas and Simonyan (2015). However, the predominant research on corporate spin-offs is focused on the motivations for a spin-off, and the expected gains that companies and shareholders can obtain.

A primary theme in the literature reveals that the main motivation for a spin-off is the need to restructure and focus on the core business, as it is expected to reduce information asymmetries, to increase efficiency and transparency, and to improve market value and operating performance of the parent company (Bergh et al., 2008; Chai et al., 2018; Chen and Guo, 2005; López Iturriaga and Martín Cruz, 2008).

Another perspective, as suggested by Dittmar (2004), is that the spin-off firm has a leverage ratio lower than the parent company. That is, firms may spin-off an asset to allow the new company to establish a suitable capital structure that may improve its growth opportunities. This idea is consistent with the description of 1993 Marriott spin-off discussed in Parrino (1997). According to the author, Marriott executives believed that the new spin-off firm would have greater potential to grow because of its improved financial strength. Finally, this argument is also corroborated by Krishnaswami and Subramaniam (1999) study, in which they found that the amount of capital raised after a spin-off increased significantly two years after its occurrence (Boreiko and Murgia, 2016).

However, the literature is relatively new and quite fragmented. Therefore, it is possible to find different studies suggesting different types of motivations. Boreiko and Murgia (2016) has summarized some of them, which include Schipper and Smith (1983) proposition that tax and regulatory advantages may form the basis for a spin-off, and Aron's (1991) theoretical model that a spin-off can be used as an incentive mechanism to improve managers' performance. Finally, a resource-based approach was also applied to identify the possible reasons for a firm to launch a spin-off. López Iturriaga and Martín Cruz (2008) suggest that spin-offs are motivated by managerial preferences, such as the desire to exploit new ideas, or the preference to focus on the core business.

Given extant research, it appears that little, if any, attention has been given to the analysis of the accounting and financial conditions that need to be fulfilled for firms to engage in a spin-off. It is important to understand why managers engage in a spin-off, but it is also important to recognize that if a combination of conditions is met a spin-off will happen. Therefore, this paper aims to identify the possible configurations of accounting and financial variables that can lead to a spin-off in the lodging industry, in order to predict its occurrence.

2.2. The lodging industry context

Corporate spin-offs in the lodging industry are not new. In fact, they have been happening for a long time. According to Canina and Klein (1998), from 1964 to 1995, there were six spin-offs in this industry. Yet, in the last decade, the intensity has increased significantly. In just seven years, four spin-offs have been announced in the major hotel chains. According to De La Merced (2015), firms aim to slim down the firm's operations and improve their stock prices by separating the hotel and franchising business from the timeshare division.

Research on spin-offs in the lodging industry is sparse, as the uniqueness of this industry, as well as its size may limit the research in this sector. Only one known paper focused on spin-offs in the lodging industry. Canina and Klein (1998) study analyzed the financial market perceptions of spin-offs in this industry, in order to understand if it creates additional value. Their findings indicate that specialization is perceived positively, indicating that hotel companies should consider this restructuring activities in order to grow, and to seek more opportunities for public financing. Additionally, they found that due to the diverse type of operations that a hotel firm can encompass, it is expected that lodging companies will often spin-off some of their segments. Hence, it can be said that spin-offs in this sector is not a one-off event, but a likely event conducted to improve value. In line with this, the ability to predict a spin-off could be important to investors in lodging stocks in order to manage their investments.

Therefore, this research expands on a very relevant topic that has not been widely researched, capitalizes on current industry trends and seeks to provide an explanation for, as well as the ability to predict, spin-offs in the lodging industry. As an initial study, the findings may provide a catalyst for further research in corporate spin-offs that could extend beyond lodging to other segments of hospitality and tourism, as well as other business sectors. Further, the study employs contemporary methods that allow to focus on a specific industry sub-segment, rather than broad heterogeneous samples that can be uninformative (Myers, 2001; Oak and Dalbor, 2008)

2.3. Research framework

The aim of this study is to analyze the configurations of accounting and financial conditions that can lead to a spin-off in the lodging industry, more specifically the spin-off of the timeshare segment. Therefore, it is important to determine which variables should be considered. According to the spin-off literature, not only the parent company characteristics influence the decision to spin-off, but also the characteristics of the unit being divested can influence this decision (Nixon et al., 2000). Thus, in order to create a research framework for this study, the corporate spin-off literature was complemented by contemporary lodging and timeshare literature.

First, the most prominent arguments in the spin-off research were analyzed in line with the characteristics of timeshare. After verifying that timeshare was growing in terms of relative importance when comparing with other segments of hotel chains (Penela et al., 2019), this research framework focused on the spin-offs for larger divisions. In this stream, different authors suggest that firms with low book-to-market ratios, and low revenue growth are more likely to spin-off larger divisions (Chen and Guo, 2005; Nixon et al., 2000). For instance, Nixon et al. (2000) found that the larger the division, the higher the likelihood to spin-off. The authors argue that a larger size may indicate a higher probability of survival as a stand-alone unit. Timeshare is being considered one of the fastest growing segments in the hospitality industry (Penela et al., 2019). As a result, it is expected that lodging firms will be more likely to spin-off their timeshare segment, if they have both low book-to-market ratios and low revenue growth, and if they believe its timeshare segment has the necessary conditions to survive as a stand-alone. Thus, both book-to-market and revenue growth variables should be included in this analysis, as well as, variables that are able to capture the relative size of the unit (timeshare) and the propensity to survive as a stand-alone.

Research regarding the timeshare literature is limited. Nevertheless,

Nabawanuka and Lee (2009) was able to study the impacts of timeshare operations on publicly traded U.S. hotels. In order to measure the degree of timeshare operations, that is, the relative importance of this segment in the companies' portfolio, they used the variable degree of timeshare (DOT), which was calculated by dividing the number of timeshare properties by the total properties. Thus, this indicator will be included in this study framework to capture the relative size of this segment. Further, it is also necessary to verify if adding to the size, the unit being divested has the propensity to survive as stand-alone company. Different authors, mainly in the international business literature, as well as, in the hospitality setting have been arguing that experience in operations play a crutial role on the success of a new business (Combs et al., 2004; He et al., 2015; Koh et al., 2009). For instance, He et al. (2015) has showed that operational experience needs to be gather before a company can get value from market seeking strategies. Koh et al. (2009) also suggested an important role of experience in accounting performance using the franchising setting. The authors argue that in early years of experience, a business may take more advantages from being included in the parent company, due to improved economies of scale. However, from a certain point on, this positive impact may disappear. Thus, higher levels of operations experience can suggest higher propensity for success as a stand-alone business, and therefore higher propensity for a spin-off of that business. Hence, a variable measuring the experience in timeshare operations (EXPt) will also be included. Similar to other studies, the number of the years with timeshare business will be used as a proxy for experience (Combs et al., 2004; Koh et al., 2009).

According to the literature review, another important stream in corporate spin-off research also suggests that spin-offs are motivated by a change in the corporate strategy. For example, companies can decide to spin-off to restructure and to focus on the core business, as such operations are seen to improve companies' stock market (Prezas and Simonyan, 2015). Thus, in order to predict a spin-off in the lodging industry, it is also crucial to identify each company's current strategy. Contemporary hospitality literature suggests that lodging firms are changing its business strategy to an *ALFO strategy* (Sohn et al., 2013). In other words, firms are expanding the management and franchising business, and decreasing fixed assets. The inclusion of the franchising setting in this model was considered pertinent, as a spin-off can be motivated by a change in the corporate strategy, and franchising strategy has been of most use in the current business environment. Therefore, if such strategy can be identified, then a spin-off of a non-related business can be expected. For the purposes of this research, it is also relevant to explain some of the peculiarities of the timeshare industry (unit being divested). The timeshare product can have various forms, such as the deeded product, in which the assets are owned by consumers, and the right-to-use timeshare, in which the assets are owned by the firm (Upchurch, 2002; Upchurch and Lashley, 2006). Depending on the timeshare form, total assets can be differently affected. In other words, the timeshare investments may require a high investment in fixed assets, but if using deeded products, the fixed assets will reduce after sale. However, the right-to-use timeshare products imply that lodging companies will still own the assets even after sale, making them more asset heavy.

Having said that, this study will include the variable degree of franchising (DOF), calculated by dividing the number of franchising properties by the total properties, in order to verify if a company is expanding the franchising business (Kang and Lee, 2014; Koh et al., 2009), and the variable "total assets" to verify the companies' level of fixed assets. In other words, if DOF is increasing and fixed assets is reducing, this could indicate the manager's preferences for an ALFO strategy, and a higher propensity for a spin-off of non-related business, or a business that is asset heavy e.g. right-to-use timeshare.

Fig. 1 illustrates the research framework of this study.

3. Methodology

This research applies a contemporary methodology that has been applied in different areas. In the case of the hospitality industry, some examples are: Pappas (2018); Tran et al. (2018), and Yadav et al. (2018). The next subsections will detail the data collection sources, as well as, the model and the measurement instruments of each variable. Finally, there will be also a section dedicated to describing this new technique and explain its advantages when comparing with more traditional methods.

3.1. Data collection

This research aims to provide an analysis of accounting and financial antecedents of spin-offs in the lodging industry. For this purpose, the COMPUSTAT database was used to retrieve the data from all lodging companies that engaged in a timeshare spin-off in the last decade. In order to identify the companies that were involved in a timeshare spin-off, the SEC Electronic Data Gathering and Retrieval (EDGAR) system was used to download the companies' 10-K and to conduct a keyword search for words related to timeshare and spin-off. Four spin-offs were identified (Table 1).

For each company, the last 10 years prior to the spin-off announcement were selected. There are two complementary reasons that led to this choice: 1) it is a common practice within the accounting and financing setting to analyze 10 years of data (Savor and Wilson, 2016) ; and 2) the methodology chosen for this study is better suited for small sample sizes (below 50 observations) (Ragin, 2008a). However, for Hilton, data was not available from 2009 to 2013, as Hilton was out of the stock market. No impute of missing data was performed for the outcome of interest, as according to diverse authors, the deletion of the entire record is the least problematic method for missing data in the context of fuzzy set qualitative comparative analysis (fsQCA) (Allison, 2001; Fiss, 2011; Pappas, 2018). Thus, in total, 35 observations were considered for this research.

3.2. Variables measurement

According to the research framework of this study, there are six accounting and financial causal conditions considered for analysis. This number of variables is considered appropriate as according to Rihoux and Ragin (2009), only 5 to 6 variables should be included in this type of research designs, due to the *limited diversity* problem". For the measurement of book-to-market ratio, revenue growth and total assets, the COMPUSTAT data items were used. For the other three variables, the data was manually collected from the 10-K annual reports, mainly the properties information, and the year of entrance in the timeshare market. Table 2 summarizes the measurement information for all the causal conditions, and the literature supporting it.

Finally, regarding the outcome of interest, the variable spin-off aims to indicate the presence or absence of conditions for a spin-off. However, according to Ragin (2008b), both crispy sets (1 = fully in; 0 = fully out) or fuzzy sets (3, 4, or 6 value scales) can be applied, depending on how the degree of membership varies. In other words, some variables are not fully in (present) or fully out (absent), they can be for example, "mostly, but not fully in" or "more out, than in". In the case of this research, prior literature suggests that not only the company fulfills the conditions to spin-off before actually publicly announcing it, but also that in the prior years the company can mostly have the conditions, but not fully have them (Chai et al., 2018; Schipper and Smith, 1983). This rationale is consistent with a fuzzy set definition.

For the purposes of this research, the 6-value scale of Ragin (2008b): 1, 0.8, 0.6, 0.4, 0.2 and 0, was applied, as according to different authors, the last five years prior to the spin-off announcement should be considered (Boreiko and Murgia, 2016; Schipper and Smith, 1983). Thus, in the present study, the variable spin-off will take one of the
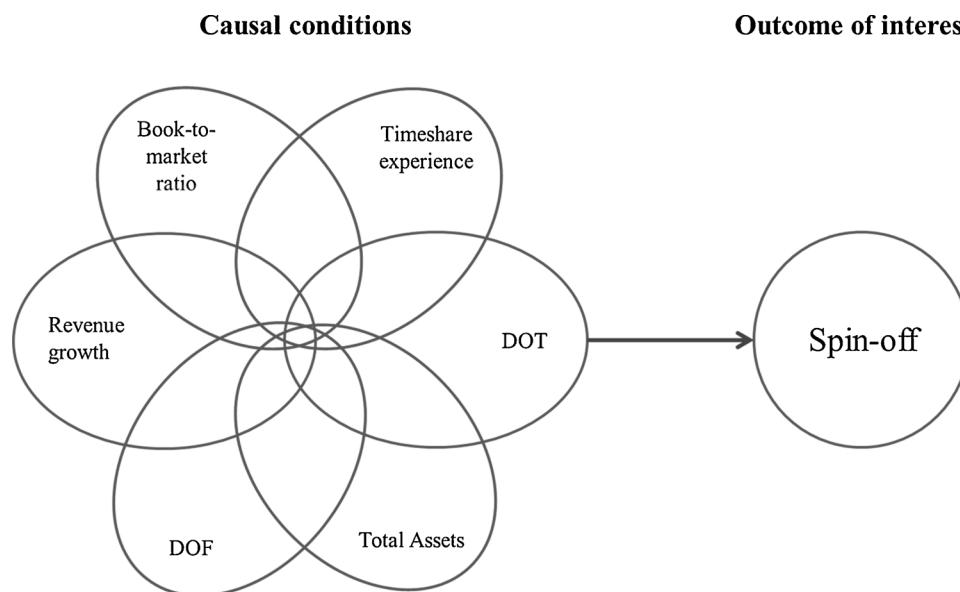
Causal conditions   **Outcome of interest**

Fig. 1. Research framework (adapted from Yadav et al. (2018)).

values of the 6-value scale depending on the year of observation. For example, if "year "is equivalent to one year prior to spin-off announcement, then the variable takes the value of 1 ("fully in" - presence of conditions to spin-off); If "year "is equivalent to two years prior to spin-off, the variable takes the value of 0.8 ("mostly in, but not fully in"); and subsequently (Ragin, 2008b). Table 3 shows the spin-off variable measurement per company.

3.3. Data analysis technique - fsQCA

For the purposes of this research, data was analyzed using fuzzy set qualitative comparative analysis (fsQCA). This technique enables a systematic comparison of cases to explain a specific result (or dependent variable). The main difference between the traditional methods, such as regression analysis, and the qualitative comparative methods, such as fsQCA lies on the theoretical approach. While regression analysis is based on correlation methods, the fsQCA applies set-theory and Boolean algebra (Ragin, 2008a). That is, it belongs to a group of configurational methods that aim to find relationships of necessity (the outcome cannot occur if the condition is absent) and sufficiency (the presence of that condition guarantees the outcome) between the conditions and the result. Consequently, this approach is well suited for research designs involving small and intermediate-size samples (e.g., 5–50), on contrast to standard econometric methods which depend on probability distributions (Fiss, 2011).

The first step of this method is the calibration process. The researcher transforms each variable into sets of scores, according to their degree of membership within a certain characteristic. Then, the calibrated sets are used to test the necessity of conditions, as well as to produce the truth table - the main tool of this technique. This output

provides all possible combinations of conditions to the outcome of interest. Using an algorithm based on counterfactual analysis, the truth table is simplified allowing the identification of core and peripheral conditions (Fiss, 2011; Ragin, 2008a). In the current study, this approach will be applied to examine the possible combinations of conditions that lead to a spin-off. Following the recommendation of Woodside and Zhang (2013), the same analysis will be also performed for the absence of spin-off (˜spin-off).

4. Results

4.1. Descriptive analysis and data calibration

As previously mentioned, the sample of this study is comprised of accounting and financial data for each company prior to the spin-off announcement. Table 4 presents the descriptive statistics for the 35 observations analyzed in this study. The main variable analyzed is the spin-off variable, which has a minimum value of 0 (absence of conditions to spin-off) and a maximum value of 1 (presence of conditions to spin-off). Book-to-market variable presents a mean value of 0.3370, ranging from 0.0886 to 2.0160. Revenue growth ranges from -0.2023 to 0.8278, and it has a mean value of 0.0543. Timeshare experience (EXPt) has a maximum value of 27 and a minimum of 7. DOT shows a maximum (minimum) value of 0.0098 (0.0303) with a mean value of 0.0194. DOF measure has a mean of 0.7086 and ranges between 0.3901 and 0.9792. Finally, the total assets variable ranges from 7933 to 26,125 and it has a mean value of 10,375.

As explained, before performing the main analysis, it is necessary to calibrate the data. In order words, the raw values must be converted into fuzzy scores (Tran et al., 2018). Each fuzzy-set value will range

Table 1

Sample of spin-offs.

Spin-off announcement	Parent company		New company	
	Ticket Symbol	Name	Ticket Symbol	Name
February 14, 2011	MAR	Marriott International Inc	VAC	Marriott Vacations Worldwide Corp
February 10, 2015	HOT	Starwood Hotels & Resorts Worldwide, Inc.	VSE	Vistana Signature Experiences, Inc.
June 2, 2016	HLT	Hilton Worldwide Holdings Inc	HGV	Hilton Grand Vacations Inc.
August 2, 2017	WYND	Wyndham Destinations, Inc.	WH	Wyndham Hotels & Resorts, Inc.

Table 2
Causal conditions measurement.

Causal Condition	Measurement	Supporting Literature
Book-to-market	$\frac{Stockholders\ Equity}{Common\ Shares\ Outstanding\ *\ Closing\ price}$	Chen and Guo (2005) Aktas et al. (2015)
Revenue growth	$\frac{Total\ Revenue\ year\ (t)}{Total\ Revenue\ year\ (t-1)} - 1$	Chen and Guo (2005) Park and Jang (2013)
Total Assets	Total Assets	Kang and Lee (2014)
EXPt	Number of the years with timeshare business	Koh et al. (2009)
DOF	Number of franchised properties divided by total properties	Park and Lee (2009) Koh et al. (2009)
DOT	Number of timeshare properties divided by total properties	Nabawanuka and Lee (2009)

Table 3
Measurement of spin-off variable.

Year	Wyndham (WYN)	Hilton (HLT)	Starwood (HOT)	Marriot (MAR)
2017	–	–	–	–
2016	1	–	–	–
2015	0.8	1	–	–
2014	0.6	0.8	1	–
2013	0.4	0.6	0.8	–
2012	0.2	0.4	0.6	–
2011	0	0.2	0.4	–
2010	0	0	0.2	1
2009	0	0	0	0.8
2008	0	0	0	0.6
2007	0	0	0	0.4
2006	–	0	0	0.2
2005	–	–	0	0
2004	–	–	–	0
2003	–	–	–	0
2002	–	–	–	0
2001	–	–	–	0

Table 5
Necessity analysis results for spin-off (presence).

Conditions	Outcome variable: Spin-off	
	Consistency	Coverage
fsbooktomarket	0.45	0.39
˜fsbooktomarket	**0.87**	0.75
fsrevenuegrowth	0.66	0.57
˜fsrevenuegrowth	0.69	0.58
fsEXPt	**0.81**	0.68
˜fsEXPt	0.46	0.41
fstotalassets	0.63	0.62
˜fstotalassets	0.70	0.55
fsDOT	0.64	0.52
˜fsDOT	0.66	0.62
fsDOF	0.69	0.57
˜fsDOF	0.62	0.57

Note: The symbol "~" stands for "absence of".

from 0 to 1 and it indicates the degree of membership (Woodside and Zhang, 2013). For the purpose of this paper, the cuts were made at 90% for full membership (presence), 50% for the crossover point of maximum ambiguity, and 10% for full nonmembership (absence) (Ho et al., 2016; Navarro et al., 2016).

Table 4 shows the calibration information for each variable. For example, for book-to-market ratio, full membership is considered above 0.5, and full nonmembership below 0.12. The crosspoint is at 0.25 (maximum ambiguity). Thus, the presence of book-to-market is associated with the highest values of this variable, and the absence to the lowest ones. To allow its recognition, the calibrated variables will have the prefix "fs" before the variable label, e.g. fsbooktomarket.

4.2. Main analysis

The goal of this study is to identify the accounting and financial conditions that lead to a spin-off. Therefore, an analysis of necessity was performed to verify if any of the proposed causal conditions can be

considered as necessary for the presence of the outcome (spin-off). Table 5 presents the results. According to various authors, a condition is considered "necessary" if the consistency score exceeds 0.9, and "almost always necessary" if it exceeds 0.8 (Ragin, 2008a; Schneider et al., 2010). Accordingly, none of the conditions is considered necessary (consistency < 0.9). Nevertheless, the absence of book-to-market (˜fsbooktomarket), and the presence of timeshare experience (fsEXPt) can be considered "almost always necessary", as their scores are higher than 0.8. Such results suggest that lower values of book-to-market and higher values of timeshare experience are almost always present if companies decide to spin-off the timeshare segment.

Next, an analysis of sufficiency was also performed to identify the sufficient conditions and the different causal configurations that can lead to a spin-off. Following Fiss (2011), this study also identifies both core and peripheral conditions by using the parsimonious and the intermediate solution computed by fsQCA. That is, a core condition is identified if appears in both solutions, indicating a stronger causal relationship with the outcome of interest. A peripheral condition appears only in the intermediate solution, and therefore it has a weaker relationship with the outcome. Table 6 shows the results of sufficient

Table 4
Descriptive statistics and calibration.

Descriptive statistics					Calibration		
Variable	Mean	Std. Dev.	Maximum	Minimum	Presence	Ambiguity	Absence
Spin-off	0.3086	0.3744	1	0	]1; 0.9[	]0.9; 0.1[	]0.1; 0[
Book-to-market	0.3370	0.3335	2.0160	0.0886	(0.5; 0.25; 0.12)*		
Revenue growth	0.0543	0.1574	0.8278	−0.2023	(0.12; 0.06; -0.04)*		
EXPt	18.4	5.6071	27	7	(24;19.5;11)*		
DOT	0.0194	0.0056	0.0303	0.0098	(0.025; 0.02; 0.01)*		
DOF	0.7086	0.2067	0.9792	0.3901	(0.978; 0.65; 0.45)*		
Total Assets	10,375	4,089	26,125	7933	(12,000; 9200; 8500)*		

Note: *variables were calibrated using the 10th, 50th, and 90th percentiles as the thresholds (Ho et al., 2016; Navarro et al., 2016).

Table 6
Sufficient analysis for spin-off.

	Spin-off					
	1	2	3	4	5	6
Fsbooktomarket		O	O	O	O	O
Fsrevenuegrowth	●	O	O	O	●	●
FsEXPt	o	o	●	●		●
Fstotalassets	●	O	O		●	●
fsDOT	O	O	●		●	●
fsDOF	O	O		●	●	●
Consistency	0.85181	0.81818	0.91375	0.92039	0.91979	0.92783
Raw coverage	0.28163	0.27347	0.42691	0.46588	0.41498	0.41670
Unique coverage	0.06883	0.06339	0.01063	0.00767	0.05202	0.00585
Overall solution consistency	**0.87612**					
Overall solution coverage	**0.73443**					

Note: Full black circles "●" represent the presence of a condition, and white circles "O" indicate its absence. Larger circles indicate core conditions, and small circles refer to peripheral conditions. Blank spaces indicate that the condition may be either present or absent (Fiss, 2011; Woodside et al., 2015).

analysis.

According to the results, there are six different configurations that can lead to a spin-off. All of them have an individual acceptable consistency (> 0.80), and the overall solution exceeds the thresholds recommended by Ragin (2008a) in terms of both consistency (> 0.80) and coverage (> 0.25). Further, all accounting and financial conditions suggested in this study are sufficient in at least one of the configurations that lead to a spin-off. Thus, the results suggest that investors should pay attention to all of these indicators when predicting a spin-off.

In configuration 1, firms show high levels of revenue growth and high total assets, while both timeshare and franchising business show low levels of relative importance in the company's portfolio (absence of DOT and DOF). Further, it is the only one in which the condition book-to-market is neutral (may be either low or high). This solution is consistent with previous research suggesting that high-growth firms show a high incidence of spin-offs. In other words, companies in need of financing will want to divest assets, so they could raise capital at a fair market price after the divesture (Boreiko and Murgia, 2016). Hence, this configuration fits the profile of a spin-off in companies with a **"capital seeking" strategy.**

Solution 2 suggests the existence of a path for a spin-off, in which all the causal conditions are absent, which means, with low levels. This configuration resembles the spin-offs of **underperforming assets**. That is, this solution is the only one in which companies are not showing high revenue growth, not having high timeshare experience, and not having high relative importance of timeshare in their portfolio. On contrary, the solution 3 clearly profiles the spin-offs of **larger businesses** (high EXPt and DOT). According to Chen and Guo (2005), companies with low book-to-market and low revenue growth are likely to spin-off larger businesses to improve its growth opportunities, either by reducing information asymmetries (Bergh et al., 2008; Boreiko and Murgia, 2016) or by improving the financial strength of the spin-off business (Chai et al., 2018).

By comparing solution 3 and 4, it is possible to observe that companies will also decide to spin-off a larger business (high EXPt and DOT), if high DOF is present, and it is somewhat immaterial if total asset are high or low. These findings are in line with current literature suggesting that hotel chains in the U.S. are shifting their business strategy towards a **fee-oriented strategy**, namely they are focusing in their management or franchising business (Sohn et al., 2013).

Finally, configurations 5 and 6 have the same core conditions and they only differ slightly from each other. Companies with low book-to-market value, high total assets, high relative importance of franchising

Table 7
Necessity analysis results for ~spin-off (absence).

Conditions	Outcome variable: ~ Spin-off	
	Consistency	Coverage
fsbooktomarket	0.78	0.88
˜fsbooktomarket	0.47	0.52
fsrevenuegrowth	0.62	0.72
˜fsrevenuegrowth	0.62	0.69
fsEXPt	0.50	0.55
˜fsEXPt	0.71	0.83
fstotalassets	0.56	0.71
˜fstotalassets	0.70	0.71
fsDOT	0.68	0.72
˜fsDOT	0.55	0.66
fsDOF	0.64	0.69
˜fsDOF	0.60	0.71

Note: The symbol "~" stands for "absence of".

business, and high timeshare experience will decide to engage in a spin-off if either high revenue growth (solution 5) or high DOT is present (solution 6). These two paths are consistent with spin-offs in lodging companies with an **ALFO strategy** (Sohn et al., 2013), i.e. to be less capital-intensive and to focus on the franchising business.

4.3. Supplementary analysis

According to Woodside and Zhang (2013), the fuzzy set analysis should also be performed for the absence of the outcome of interest. Following this recommendation, this study will also analyze the necessary and the sufficient conditions for the absence of spin-off (˜spin-off). This analysis is believed to complement the current findings by giving insights on asymmetric or symmetric causality (Fiss, 2011). In other words, the paths and conditions that lead to a spin-off may be quite different from those leading to the absence of a spin-off.

First, the necessity analysis was conducted for the absence of spin-off. Table 7 presents the results. Having the same thresholds in mind (consistency < 0.9), there are no necessary conditions for the absence of a spin-off (Ragin, 2008a; Schneider et al., 2010)

Next, and like the previous analysis, the different causal configurations that can lead to the absence of a spin-off were identified. Table 8 shows the results. As per the results, there are 5 different configurations of accounting and financial conditions that lead to the absence of a spin-off. Both the individual solutions and the overall solution present high levels of consistency (> 0.99), exceeding all the thresholds recommended by Ragin (Ragin, 2008a). Hence, a company likely will not engage in a spin-off if these variables are combined.

First, in all solutions, the book to market condition is present (high value) and it is core. This finding suggests an almost symmetric

Table 8
Sufficient analysis for ˜Spin-off.

	˜ Spin-off				
	A	B	C	D	E
Fsbooktomarket	●	●	●	●	●
Fsrevenuegrowth		o	●	●	●
FsEXPt	O	O	O	●	●
Fstotalassets	●			O	O
fsDOT	●	●	o	o	●
fsDOF		O	O	O	●
Consistency	0.99470	0.99345	0.99070	0.99840	0.99616
Raw coverage	0.41769	0.33724	0.30811	0.23462	0.29849
Unique coverage	0.08892	0.04648	0.05791	0.01132	0.02890
Overall solution consistency	**0.99283**				
Overall solution coverage	**0.63076**				

relationship between book to market condition and the outcome of interest. In other words, for a spin-off, the book-to-market condition is absent in almost all of the configurations (Table 6), while for the absence of the spin-off, the book-to-market conditions is present in all configurations (Table 8). Further, by comparing solution 2 for a spin-off with the solution E for the absence of a spin-off, it is possible to verify another almost symmetric relationship, as for a spin-off all the conditions were absent, and for a non-spin-off, a possible combination suggests all conditions present, except total assets that should be absence (low levels).

Regarding the remaining combinations, findings suggest that if EXPt is absent and DOT is present, together with the presence of book-to-market condition, companies will not engage in a spin-off if total assets is also present (solution A), or if revenue grow and DOF have low values (solution B). Further, if book-to-market is present, and revenue grow is high, and DOT and DOF are low, then firms will not spin-off if time-share experience is absent (solution C), or if timeshare experience is present, but total assets are low (solution D). These results suggest that firms can also predict if companies are not ready for a spin-off, because certain variables have not reached certain levels.

5. Conclusions

The purpose of this study is to identify the accounting and financial antecedents of corporate spin-offs in order to provide a framework capable of recognizing and predicting such events. By means of fsQCA method, this research profiles six different combinations of accounting and financial variables that lead to a spin-off, and five others that lead to the absence of a spin-off. Though no necessary conditions were found, the book-to-market ratio has showed to be an important variable to be considered. Not only that low levels of this variable are a core condition in five of the six combinations for a spin-off, but also high levels of this variable are a core condition in all combinations for a non-spin-off. Additionally, five other variables were considered sufficient conditions in at least one of the combinations for a spin-off, as well as for their absence: revenue growth, total assets, timeshare experience, DOT and DOF. Thus, investors would be wise to pay attention to the combinations of all these variables when analyzing the possibility of a spin-off.

Additionally, the results of this study lend support to extant literature through the suggestion that the different motivations behind a spin-off, suggested by the literature, are also linked to each of the combinations of variables found. In fact, for each identified combination, the respective motivation strategy was also recognized. Solution 1 profiles a company with a capital seeking strategy, solution 2 resembles a spin-off of an underperforming asset, solution 3 and 4 refer to a spin-off of larger businesses, and solution 5 and 6 refer to lodging companies with an ALFO strategy. Therefore, it would also be interesting to extend this research to other segments.

Finally, in terms of method, this study supports previous arguments suggesting the usefulness of fsQCA in providing information beyond hypothesis testing, mainly in terms of identification of causal conditions that are sufficient for the outcomes of interest (Pappas, 2018; Tran et al., 2018; Woodside et al., 2015; Yadav et al., 2018). As a result, this method may provide valuable for researchers who wish to study emerging conditions.

Overall, this recent spin-off trend in the lodging industry has brought great opportunities for research. The 4 spin-off announcements in the last 7 years in the same business line had created a great subset of analysis to test this research framework. Yet, this fact limits generalization possibilities of this study. Thus, the replication of this study in a broader sample, and/or in other markets and sectors is recommended in order to further develop this body of the literature.

6. Theoretical implications

This paper presents important academic implications at different levels. First, it brings attention to the importance of recognition and prediction of spin-offs. Previous research focused on the understanding of the drivers and motivations for spin-offs, missing out on another crucial side: the conditions leading to a spin-off. This study proposes a framework capable of analyzing the combination of accounting and financial conditions that lead companies to engage in a spin-off. According to Rihoux and Ragin (2009), the interpretation of fsQCA results cannot be per one condition but per a combination of conditions. In other words, only if all conditions are present at the same time, the spin-off will happen. This indicates that the reason – the 'why' - can exist, but the combination of financial and accounting conditions is not yet found. That is, the spin-off will only happen if all conditions are fulfilled together.

Additionally, this study also builds on previous research, as it suggests that the set of combinations found are linked to the motivations for a spin-off already suggested by prior studies. That is, if the motivation for a spin-off is known, then one can pay attention to a specific combination of variables that need to be present at the same time for that spin-off to happen. Finally, this study also provides a framework that can easily be extended to other industries, even if the number of spin-offs is relatively low, as this methodology is well suited for small sample sizes.

7. Practical implications

The implications of the study are not limited to the academic setting. In fact, this study can help investors in their decision-making process regarding stock investments. If investors expect that a company may have a motivation for a spin-off (they know why), they can also predict if it is going to happen. According to this methodology, only if a combination of conditions is all found at the same time, the spin-off will happen. Hence, investors may decide to buy more stocks in the periods before the spin-off announcement, in order to increase earnings, as spin-offs are known to increase firm value, and improve stock market performance. On the other side, if only one of these conditions is present or a combination of conditions for absence is found, then the spin-off is not expected in that period. As a result, investors can decide to direct their investments towards other more profitable stocks.

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