Causal recipes for customer loyalty to travel agencies: Differences between online and offline customers ☆

Graça Miranda Silva [a], Helena Martins Gonçalves [b,*]

[a] ISEG, School of Economics and Management, Universidade de Lisboa, R. Miguel Lúpi, n° 20, gab. 311, 1249-078 Lisboa, Portugal
[b] ISEG, School of Economics and Management, Universidade de Lisboa, R. Miguel Lúpi, n° 20, gab. 314, 1249-078 Lisboa, Portugal

A B S T R A C T

This study investigates how travel agencies can achieve high customer loyalty through offline and online shopping experiences. The study tests whether different configurations of perceived value, customer satisfaction, perceived quality, and trust affect loyalty. The results from an online survey of a travel agency's 1974 offline and 1014 online customers provide the data. Using the fsQCA, the study finds that different combinations of these factors lead to higher customer loyalty. The findings show that trust is a sufficient condition for high customer loyalty only in the offline shopping context. In the online shopping context, travel agencies must combine trust with perceived value or with perceived quality to achieve high customer loyalty. Further, in the offline shopping context, the combination of perceived value and perceived quality leads to higher loyalty, while in the online shopping context agencies need to add customer satisfaction to this configuration.

© 2016 Elsevier Inc. All rights reserved.

1. Introduction

Greater competition between firms fosters the development of long-term relationships with customers. These relationships in turn foster customer loyalty that leads to profitability (Morgan & Rego, 2006). The firms benefit from loyal customers because they are less price sensitive, the costs to maintain loyal customers are lower than those to attract new ones, they represent a more stable source of revenue, and they contribute to increasing the firm's profits (Mittal & Lassar, 1998). These benefits are why customer loyalty is an important strategic goal that managers pursue. In this sense, understanding what the drivers or causal conditions of customer loyalty are and how they combine in order to define adequate strategies is very important. Many studies exist that address this issue (e.g., Pan, Sheng, & Xie, 2012). However, the diversity in the results does not allow for the generalization of the findings due to various factors. On the one hand, the determinants of loyalty sometimes show conflicting results. For example, the relation between customer satisfaction and loyalty does not always exist (Szymanski & Henard, 2001). On the other hand, the conceptualization and measurement of customer loyalty are diverse: the behavioral perspective (e.g., Gonçalves & Sampaio, 2012), the attitudinal approach (e.g., Chen & Tsai, 2008) and a mixed approach (e.g., Dick & Basu, 1994) have different consequences on the evaluation of the determinants of loyalty (Gonçalves & Sampaio, 2012). Furthermore, the development of the empirical research in this domain encompasses very diverse contexts and industries, and in different conditions that point to different determinants. These problems hinder the comprehension of customer loyalty and therefore require further investigation. In this study customer loyalty refers to a specific desire to continue a relationship with a travel agency (Chen & Tsai, 2008).

The development of information technologies (IT) and the Internet offers firms new avenues to achieve competitive advantages and to improve performance through innovative ways to communicate, promote, and to distribute their products and services. This innovation contributes to the development of internet-based businesses such as the tourism industry and in particular its travel agency sector (e.g., Buhalis & Law, 2008; Kim, Chung, & Lee, 2011). Increasingly, travel agencies use online channels that enable travelers to access a wide variety of tourist services in easier, more convenient, cheaper, and customized manners that increase the perceived value of the offer and thus the online purchase (Wang & Wang, 2010). The new IT and Internet tools facilitate the interactivity between the travel agencies and their clients and also between the clients themselves. The latter interaction allows clients to better

know the tourist experience. With this information, agencies can improve their service quality and thereby improve customer satisfaction and the willingness to repeat the purchase, which thus facilitates the strengthening of the customer relationships (Buhalis & Law, 2008). The success of the purchases with online travel agencies relies on high trust (Kim et al., 2011) because feelings of uncertainty and risk negatively affect the customers' trust that does not promote online shopping (McKnight, Choudhury, & Kacmar, 2002). The online presence of travel agencies increases the competition in the sector that makes the understanding of what drives customer loyalty both online and offline much more relevant. Kumar, Pozza, and Ganesh (2013) and Pan et al. (2012) state that a need exists for more research in this area.

Therefore, this study extends the research by investigating which configurations of customer satisfaction, perceived value, perceived quality, and trust lead to high customer loyalty in both online and offline travel agencies. This research contributes to the body of knowledge on customer loyalty by clarifying the roles of the causal conditions and shows the advantages of the fsQCA, such as equifinality and conjunctural causation, in investigating these causal explanations (Ragin, 2008).

The organization of the study is as follows: after the introduction comes the literature review and the causal propositions. Then, the study presents the method, the results, and the discussion of the findings. The conclusion provides the limitations of this study and suggestions for future research.

2. Literature review

2.1. Customer loyalty

The literature generally defines customer loyalty as a mix of attitudes and behavior (Dick & Basu, 1994; Oliver, 1999) that becomes a "…deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future." (Oliver, 1999: 34). In the online context, Anderson and Srinivasan (2003) say that customer loyalty results from the favorable attitudes toward and the repeated purchase through an internet shopping channel. Oliver (1999) identifies four "levels" in customer loyalty: cognitive, affective, conative, and behavioral. The loyalty research focuses on the conative level (intention), such as recent works in the travel agency sector (Amaro & Duarte, 2015; del Bosque, San Martín, & Collado, 2006) and this study do.

2.2. Causal conditions for customer loyalty

The customers' experience with online and offline travel agencies differs because the personal contact, the information provision, the time period for interaction, and the brand presentation are different (Rose, Hair, & Clark, 2011). The personal interaction that exists in an offline travel agency favors service personalization more, which does not happen with the online travel agency. Online, the customer has access to more varied information and in different formats, which the offline travel agency can only offer in a limited form. Further, the Internet allows for information searches and purchases 24 h a day, 7 days a week, and gives the agency new ways (e.g., video) to present their offerings (Rose et al., 2011). These characteristics shape the access and use of the online and offline travel agencies and consequently affect the customers' attitudes and behaviors. Therefore, the factors of the perceived value and quality, customer satisfaction, and trust become relevant antecedents of customer loyalty (e.g., Kuo, Chang, Cheng, & Lai, 2013; Ponte, Carvajal-Trujillo, & Escobar-Rodríguez, 2015). Cronin, Brady, and Hult (2000) suggest that the use of fsQCA favors the simultaneous analysis of these antecedents.

2.2.1. Customer satisfaction

Customer satisfaction is a cognitive and affective evaluation that is a function of the disconfirmation of expectations (Oliver, 1997). After the post-consumption experience, if the travel agency satisfies the customer, then the customer is likely to repeat the purchase and become loyal. Many of the existing studies testify to the positive relation between satisfaction and customer loyalty in different domains (e.g., Pan et al., 2012) and in the travel agency sector (e.g., del Bosque et al., 2006; Lai, 2014; Kim et al., 2011). But some of the other studies fail to find this relation (e.g., Chen & Tsai, 2008). Shankar, Smith, and Rangaswamy (2003) find that this relation is stronger in online than in offline environments.

2.2.2. Trust

Trust is a complex construct and has different definitions. Lai (2014: 419) defines the trust in a travel agency as a "feeling of confidence that the travel package offered by a travel agency will meet his/her expectations." Trust is an important antecedent of customer loyalty in diverse environments (e.g., Pan et al., 2012), and also in the travel agency sector (Lai, 2014). Trust in online shopping for travel relates to keeping personal information private and realizing online transactions safely (Kim, Kim, & Shin, 2009). Different studies suggest that an online purchase needs a higher level of trust than an offline purchase due to unknown elements (Corbitt, Thanasankit, & Yi, 2003; van der Heijden, Verhagen, & Creemers, 2003). Because online users have more internet experience, their greater trust in e-commerce probably contributes to more online shopping (Corbitt et al., 2003). However, contradictory results continue to exist about trust in online shopping for travel and its customers' loyalty: the relation between trust and the intention to repurchase online travel services is positive in some studies (e.g., Ponte et al., 2015; Kim et al., 2011), but this direct effect is not present (Kamarulzaman, 2007) or is negative (Amaro & Duarte, 2015) in other studies. Therefore, Kim et al. (2011) argue that a need exists for more research on the perceived trust in online shopping for tourism products and services.

2.2.3. Perceived value

Perceived value is a major predictor of customer loyalty in different contexts: for example, in retail (Cronin et al., 2000), tourism (Brodie, Whittome, & Brush, 2009), and travel agencies (Kuo et al., 2013). The literature frequently defines perceived value as the result of the evaluation of "what is received and what is given" (Zeithaml, 1988), an approach that is highly effective in the study of the customer value–loyalty relation (Brodie et al., 2009). The higher the perceived value is, the higher the loyalty is (Kuo et al., 2013). The online shopping context follows the same concept of perceived value (Ponte et al., 2015; Zeithaml, 1988). Perceived value has a positive effect on online purchases from travel agencies (Ponte et al., 2015; Roger-Monzó, Martí-Sánchez, & Guijarro-García, 2015).

2.2.4. Perceived quality

The literature has widely studied the perceptions of service quality. Parasuraman, Zeithaml, and Berry (1985) define service quality as the discrepancy between the perceptions and the expectations by using the SERVQUAL instrument for measurement. But Caro and García (2008) develop a different conceptualization of the perceptions of service quality in the travel sector: a multidimensional and hierarchical model. In some studies, namely in online shopping (e.g., Gounaris, Dimitriadis, & Stathakopoulos, 2010), online travel agencies (e.g., Kim & Lee, 2004), and virtual travel community (Elliot, Li, & Choi, 2013), service quality has a direct effect on loyalty. In other studies (e.g., Clemes, Gan, & Ren, 2011) on the motel and the travel industries (Kuo et al., 2013), only an indirect effect exists between service quality and loyalty. Lai (2014) argues that insufficient research exists on the service quality–loyalty relation in the travel agency sector, which justifies its inclusion in this study.

Based on the literature review this study proposes:

Proposition 1. Disparate configurations of causal conditions (trust, satisfaction, perceived value, and perceived quality) are equifinal in achieving high customer loyalty.

Proposition 2. Causal recipes for high customer loyalty differ between offline and online customers.

3. Method

3.1. Data collection

This study uses data on the customers of a travel agency by using an online questionnaire. The sampling frame uses the email addresses of customers that had bought travel services in the past year. The study sends the questionnaire to a random sample of 15,925 customers. The questionnaire was available during January and February of 2013. During this period, the study received a total of 4001 responses for a response rate of 25.1%. Among the total questionnaires returned, the study excluded 1013 because of incomplete responses. As a result, this study has 2988 observations.

A majority of respondents are in the 25 to 44-year-old group (64.2%). In terms of gender, the balance is reasonable with 47.9% females and 52.1% males. The largest category of respondents has a higher education degree (56.5%). Approximately 66% of the respondents use stores to buy travel products (offline customers), and the remaining are online customers.

3.2. Measurement of variables

The study adopts measurement instruments from the literature (Churchill, 1979). The questionnaire consists of three sections: demographic characteristics of the respondents, travel behavior characteristics, and ten-point Likert type scales (strongly agree (1) to strongly disagree (10)) to measure the degree of the customers' perceived quality, satisfaction, trust, perceived value, and loyalty in the sample frame. The study draws the scales for loyalty (*loy*) and satisfaction (*sat*) from del Bosque et al. (2006), for trust (*tru*) from Kim et al. (2011), for perceived value (*vper*) from Kuo et al. (2013), and for perceived quality (*qper*) from Coelho and Henseler (2012).

Reliability is high for all of the scales: The Cronbach Alpha coefficient is greater than 0.89 (see Appendix A).

4. FsQCA analysis

This study applies the fsQCA (www.fsqca.com), which is a specific type of QCA, to analyze the data. The advantages of the QCA relative to the most traditional methods are relevant to deepening the accurate explanations of customer loyalty. These advantages, such as equifinality, multifinality, conjunctive causation, and asymmetric causality contribute to the QCA's ability to unravel complex causal structures (Wu, Yeh, Huan, & Woodside, 2014). Although the research originally developed the fsQCA for small sample sizes, more recent studies use this method for medium and large samples (e.g., Ordanini, Parasuraman, & Rubera, 2014; Wu et al., 2014). Following this trend, this study uses the fsQCA to analyze data from two large samples: an offline sample of customers (n = 1974) and an online sample (n = 1014).

4.1. Calibration

As presented previously, this study involves five constructs: perceived quality (measured by eight items), satisfaction (measured

Table 1
Summary data for independent variables (conditions) and outcome (uncalibrated).

	Statistics	loy	qper	vper	sat	tru
Offline customers	Mean	8.071	8.100	7.886	7.895	8.242
	Std. deviation	1.866	1.444	1.671	1.753	1.718
	Minimum	1.0	1.0	1.0	1.0	1.0
	Maximum	10.0	10.0	10.0	10.0	10.0
Online customers	Mean	7.644	7.657	7.690	7.519	7.821
	Std. deviation	1.982	1.549	1.793	1.862	1.816
	Minimum	1.0	1.0	1.0	1.0	1.0
	Maximum	10.0	10.0	10.0	10.0	10.0

by three items), trust (measured by three items), perceived value (measured by two items), and loyalty (measured by two items). This study uses multi-item measures and combines the scale items into an average score. The study transforms the average scores for the causal conditions (*qper*, *sat*, *tru*, and *vper*) and the outcome (*loy*) into fuzzy set scores ranging from 0.00 to 1.00 (Ragin, 2008). The study then establishes three qualitative anchors for the calibration: an anchor to define full nonmembership, an anchor to define full membership, and a crossover point. Similar to the procedure that Ordanini et al. (2014) use, the survey scale (10-point Likert type) is the basis for these anchors. In this study the rating of nine is full membership; the rating of four is full nonmembership; and the rating of seven is the crossover point.

The study uses the same calibration procedure for the two data sets. Table 1 provides the descriptive statistics for the uncalibrated outcome and the conditions for the two groups.

4.2. Analysis of necessary conditions

The first step of the fsQCA analysis examines whether any of the causal conditions are necessary to the outcome (Schneider & Wagemann, 2010: 404). Ragin (2008) suggests two measures to evaluate the necessary conditions: consistency and the trivialness of necessity. Table 2 presents these measures with regard to the loyalty of offline and online customers. Conventionally, a condition is "necessary" or "almost always necessary" if the consistency score exceeds the threshold of 0.9 or 0.8, respectively (Ragin, 2000). All of the conditions exceed these thresholds for both offline and online customers (see Table 2). Trust is the condition with the highest value of consistency for both offline (cons. = 0.970) and online customers (cons. = 0.955). All of the conditions present high values of coverage.

When the distributions for membership of either the condition(s), the outcome, or both have a skew, the presence (or the absence) of necessary conditions might have flaws (Schneider & Wagemann, 2012: 232). To overcome this problem Schneider and Wagemann (2012) suggest an updated formula for the trivialness of necessity. Since the sets of the outcome and the sets of the four conditions under analysis in this study have a skew toward high membership, Schneider

Table 2
Overview of necessary conditions.

Condition	High customer loyalty (*loy*)					
	Offline customers			Online customers		
	Cons.	Cov.	Relevance of necessity	Cons.	Cov.	Relevance of necessity
qper	0.938	0.917	0.791	0.909	0.892	0.817
vper	0.892	0.926	0.842	0.895	0.870	0.783
sat	0.918	0.947	0.878	0.897	0.920	0.871
tru	0.970	0.932	0.808	0.955	0.906	0.821

Note: cons. = consistency; cov. = coverage.
Calculations from the fsQCA 2.5 Software (www.fsqca.com).

and Wageman's formula assesses trivialness of necessity. Table 2 contains the results for all of the conditions. The values show that for both offline and online customers all of the conditions are non-trivial for the outcome.

4.3. Analysis of sufficient conditions

The analysis of sufficient conditions involves the construction, refinement, and analysis of a truth table (Ragin, 2008). The study uses the fsQCA algorithm to produce the truth table for each data set (see Fig. 1). The two criteria refine the truth table: frequency and consistency (Ragin, 2008). For large-scale samples (e.g., 150 and more cases), Rihoux and Ragin (2009:107) recommend a frequency threshold of at least five best-fit cases, and Ragin (2008) recommends a consistency threshold of 0.80. Because this study has offline (n = 1974) and online (n = 1014) subsamples of customers, the analyses set the configuration frequency thresholds

at six for both offline and online customers and use minimum consistency thresholds of 0.904 for offline and 0.901 for online customers. This study analyzes the intermediate solution, which includes only theoretically plausible counterfactuals and which Ragin (2008) generally considers the best solution. Table 3 shows that the intermediate solutions for *loy* are informative for both offline and online customers because the consistency and coverage values surpass the minimum acceptable values that the research suggests (Ragin, 2008).

4.3.1. Offline customers

The intermediate solution for offline customers comprises two configurations of *loy*. The first indicates that a high level of trust (*tru*) alone is sufficient for achieving *loy*. This configuration is highly consistent (cons. = 0.932) and explains a large amount of the cases (cov. = 0.970). The second causal recipe is *vper ∗ qper* and shows that high perceived value in combination with high perceived

- **Offline customers**

qper	vper	sat	tru	number	loy	raw consist.	PRI consist.	SYM consist
1	1	1	1	1198 (76%)		0.971173	0.964663	0.975901
0	0	0	0	187 (88%)		0.578827	0.088714	0.089651
1	0	1	1	45 (91%)		0.964549	0.909145	0.913043
1	1	0	1	31 (93%)		0.945138	0.833351	0.837768
1	0	0	1	19 (94%)		0.931131	0.731392	0.735178
0	1	0	0	16 (95%)		0.858613	0.316686	0.318739
0	0	0	1	16 (96%)		0.910097	0.576353	0.586949
1	0	0	0	13 (97%)		0.865302	0.334195	0.334195
0	1	1	1	13 (97%)		0.968305	0.889931	0.890286
1	1	0	0	9 (98%)		0.903871	0.470270	0.470271
0	1	0	1	7 (98%)		0.940633	0.743044	0.745486
1	1	1	0	6 (99%)		0.948176	0.699669	0.699669
0	0	1	1	6 (99%)		0.955943	0.796571	0.796572
1	0	1	0	3 (99%)		0.943133	0.607709	0.607709
0	0	1	0	2 (100%)		0.933504	0.509603	0.510180
0	1	1	0	0 (100%)				

- **Online customers**

qper	vper	sat	tru	number	loy	raw consist.	PRI consist.	SYM consist
1	1	1	1	497 (65%)		0.959213	0.945787	0.959405
0	0	0	0	121 (81%)		0.557060	0.077775	0.078675
1	1	0	1	24 (84%)		0.919458	0.728768	0.738580
0	1	1	1	21 (87%)		0.937058	0.783579	0.785929
0	1	0	0	21 (90%)		0.799602	0.240539	0.241542
1	0	1	1	15 (92%)		0.944301	0.826057	0.829497
1	0	0	1	15 (94%)		0.901298	0.608844	0.611496
0	0	0	1	11 (95%)		0.884252	0.495269	0.502253
1	0	0	0	9 (96%)		0.842272	0.259487	0.260184
0	1	0	1	7 (97%)		0.911634	0.627155	0.631751
1	1	1	0	6 (98%)		0.919014	0.596889	0.596887
1	1	0	0	4 (99%)		0.877021	0.361536	0.363506
0	1	1	0	3 (99%)		0.901325	0.463427	0.463425
0	0	1	1	2 (99%)		0.932439	0.664760	0.664755
1	0	1	0	1 (99%)		0.917704	0.465930	0.465928
0	0	1	0	1 (100%)		0.908339	0.378883	0.378881

Fig. 1. Truth table with logical remainders for *loy*.

Table 3
Results of the intermediate solutions for *loy*.

Offline customers			
Frequency cutoff: 6			
Consistency cutoff: 0.904			
Causal configuration	Row cov.	Uni. cov.	Cons.
1. *tru*	0.970	0.114	0.932
2. *vper* * *qper*	0.864	0.007	0.950
Solution coverage: 0.977			
Solution consistency: 0.921			
Online customers			
Frequency cutoff: 6			
Consistency cutoff: 0.901			
Causal configuration	Row cov.	Uni. cov.	Cons.
1. *tru* * *vper*	0.872	0.038	0.935
2. *tru* * *qper*	0.891	0.057	0.933
3. *sat* * *vper* * *qper*	0.816	0.009	0.949
Solution coverage: 0.938			
Solution consistency: 0.915			

Note: "*" means logical operator AND.

quality is a sufficient condition for *loy*. This pathway is also highly consistent (cons. = 0.950) and also explains a large amount of cases with high customer loyalty (cov. = 0.864).

4.3.2. Online customers

The intermediate solution for online customers comprises three possible configurations that predict *loy*. The first indicates that a high level of trust in combination with high perceived value results in *loy* (cons. = 0.935; cov. = 0.872). The second shows that a high level of trust in combination with high perceived quality also results in *loy* (cons. = 0.932; cov. = 0.891). The third indicates that high customer satisfaction with high customer perceived value and high perceived quality results in *loy* (cons. = 0.949; cov. = 0.816). An analysis of these configurations shows that for online customers none of the four conditions alone is a sufficient condition to achieve *loy*.

4.4. Predictive validity

A critical validation question in the fsQCA is whether or not the models (sets of sufficient configurations) predict a dependent variable (outcome) in the additional samples (Gigerenzer & Brighton, 2009; Wu et al., 2014). An analysis of the predictive validity is important because a good model fit does not necessarily mean that the model offers good predictions. Although the literature recognizes the importance of the predictive validity in the fsQCA, the majority of studies only report the fit's validity (Wu et al., 2014). This study also reports the predictive validity of the proposed models for *loy* for both online and offline customers (see Fig. 2).

To test for the predictive validity, the study follows several steps and uses holdout samples. First, the study splits each sample (offline customers and online customers' samples) into a modeling subsample (subsample 1) and a holdout sample (subsample 2). Second, the study performs the fsQCA to obtain the highly consistent models for subsample 1. Third, to check if these models have high predictive abilities for subsample 2, the study tests the models for subsample 1 by using data from subsample 2. Fourth, the study repeats the previous two steps for subsample 2. Fig. 2 summarizes the results.

The results for offline customers show that the models for subsample 1 are the same as those for subsample 2. The findings for online customers show that models 1 and 3 for subsample 1 are equal to models 1 and 3 for subsample 2, and that model

2 for subsample 1 (*tru* * *qper*) is a superset of model 2 for subsample 2 (*tru* * *sat* * *qper*).

The results for both online and offline models support the conclusion that the models for subsample 1 have high predictive abilities for subsample 2 and vice versa.

5. Discussion and conclusions

This study explores sufficient conditions to create high customer loyalty (*loy*) in travel agencies by using a fsQCA. Most studies on the antecedents of loyalty in travel agencies focus on the average effects of single variables rather than on the effects of combinations (sets) of several variables. Thus, this study differentiates from these studies by successfully addressing the assumptions of additivity and equifinality, both of which affect traditional correlational approaches. The models in this study offer good predictions for high customer loyalty as the results from the predictive validity tests show through their high values.

The results show that global solutions for offline and online customers comprise two and three configurational pathways, respectively, which are sufficient to predict high customer loyalty. These solutions explain 98% of the *loy* for offline customers and 94% of the *loy* for online customers. According to the results different combinations of antecedents (customer satisfaction, trust, perceived value, and perceived quality) can lead to *loy*, providing support for Proposition 1. In addition, the results show that the causal recipes for *loy* are different for offline and online customers, which supports Proposition 2. The findings also suggest that travel agents should be especially careful in their online offers because additional conditions are necessary to achieve *loy* in that context. In particular, while trust alone is a sufficient condition for *loy* in the offline context, in an online context agencies need to combine trust with perceived value or with perceived quality to achieve *loy*. This finding is in line with the studies that show a positive and strong impact from perceived value on customer loyalty in the online context for travel agencies (Ponte et al., 2015; Roger-Monzó et al., 2015). These causal recipes also confirm the importance of trust, which the research identifies (Kim et al., 2011; Lai, 2014; Pan et al., 2012; Ponte et al., 2015) as an antecedent of loyalty in both online and offline contexts. However, trust alone in an online context is not sufficient to achieve *loy*.

In the same vein, perceived quality in combination with perceived value is sufficient for high customer loyalty in an offline context but the online context requires the addition of customer satisfaction to achieve high loyalty. This finding complements the literature that investigates the effect of customer satisfaction on loyalty in travel agencies (e.g., del Bosque et al., 2006; Kim et al., 2011; Kuo et al., 2013; Lai, 2014). On the one hand, the finding supports the strong positive relation between customer satisfaction and loyalty that Kim et al. (2011) find in an online context. On the other hand, the results also suggest that in the offline context the presence of customer satisfaction is not necessary to achieve *loy*, which is in contrast with the studies that find a positive and strong association between customer satisfaction and loyalty (e.g., del Bosque et al., 2006). However, Jones and Sasser (1995) show that a completely satisfied customer is more loyal than a merely satisfied customer, particularly in sectors where competition is intense. The high levels of satisfaction are easier to achieve in online environments because more opportunities exist for interactive and personalized marketing (Shankar et al., 2003). Overall, the findings of this study are consistent with Shankar et al. (2003) who state that this relation is stronger in online than in offline contexts. The need to combine perceived quality with perceived value and satisfaction (*vper* * *qper* and *qper* * *vper* * *sat*) to achieve *loy* is also consistent with the research on customer loyalty in travel agencies in which perceived quality appears as an antecedent of perceived value (Roger-Monzó et al., 2015), customer satisfaction (Chen & Tsai, 2008; Kuo et al., 2013), or both (Lai, 2014).

Offline customers

Models from Subsample 1				Test models from Subsample 1 using data from Subsample 2			
	row cov.	uni. cov.	cons.		row cov.	uni. cov.	cons.
1. tru	0.969	0.102	0.938	1. tru	0.972	0.125	0.930
2. vper*qper	0.873	0.006	0.950	2. vper*qper	0.854	0.008	0.949

Solution coverage: 0.975
Solution consistency: 0.922

Solution coverage: 0.979
Solution consistency: 0.921

Models from Subsample 2				Test models from subsample 1 using data from Subsample 2			
	row cov.	uni. cov.	cons.		row cov.	uni. cov.	cons.
1. tru	0.972	0.125	0.930	1. tru	0.969	0.102	0.938
2. vper*qper	0.854	0.008	0.949	2. vper*qper	0.873	0.006	0.950

Solution coverage: 0.979
Solution consistency: 0.921

Solution coverage: 0.975
Solution consistency: 0.922

Online customers

Models from Subsample 1				Test models from subsample 1 using data from Subsample 2			
	row cov.	uni. cov.	cons.		row cov.	uni. cov.	cons.
1. tru*vper	0.865	0.038	0.940	1. tru*vper	0.879	0.038	0.930
2. tru*qper	0.892	0.064	0.936	2. tru*qper	0.891	0.050	0.928
3. sat*vper*qper	0.808	0.007	0.955	3. sat*vper*qper	0.825	0.011	0.943

Solution coverage: 0.937
Solution consistency: 0.919

Solution coverage: 0.940
Solution consistency: 0.910

Models from Subsample 2				Test models from subsample 2 using data from Subsample 1			
Causal configuration	row cov.	uni. cov.	cons.	Causal configuration	row cov.	uni. cov.	cons.
1. tru*vper	0.879	0.065	0.930	1. tru*vper	0.865	0.064	0.940
2. tru*sat*qper	0.850	0.036	0.949	2. tru*sat*qper	0.845	0.044	0.958
3. sat*vper*qper	0.825	0.011	0.943	3. sat*vper*qper	0.808	0.007	0.955

Solution coverage: 0.925
Solution consistency: 0.919

Solution coverage: 0.917
Solution consistency: 0.927

Note: "*" means logical operator AND

Fig. 2. Predictive validity testing.

The causal recipes in this study help online and offline travel agents to better understand how to achieve high customer loyalty and to establish the most appropriate marketing strategies. Further, an important strategy is to increase the level of customer satisfaction in the offline context because customer loyalty requires high levels of satisfaction (Jones & Sasser, 1995). The creation of offline experiences more similar to online experiences or developing special initiatives that enhance customer satisfaction for their offline customers can achieve these high levels. For instance, these initiatives could provide more information and easier access, reduce service time, offer more personalized services, and provide easier ways to compare alternative offers. Using an analysis of the stock market collapse of 2000, Browne, Durrett, and Wetherbe (2004) suggest that business models based on both internet and physical channels might be the most successful. Thus, understanding the causal recipes that lead to high customer loyalty in both contexts (online versus offline) is extremely relevant for travel agents.

To conclude, the limitations of this study are first that the data comes from a single travel agency that limits the generalization of the findings. Second, this study only examines four key antecedents of customer loyalty. Future research should add other variables such as a tourist's commitment to a travel agent, switching costs, brand reputation, or transaction costs in order to explain a phenomenon as complex as loyalty. In the particular case of the online context, future research should consider additional antecedents such as perceived security, perceived privacy, perceived risk, perceived behavioral control, or compatibility.

Appendix A. Measurement item description.

Item	Coefficient α
Customer satisfaction (adapted from del Bosque et al., 2006) – The service was better than I expected. – Overall, I felt satisfied with the travel agency. – I was pleased to do business with this travel agency.	0.944
Perceived value (adapted from Kuo et al., 2013) – The products/services of this travel agency are reasonably priced given their quality. – The quality of services/products offered at this travel agency is reasonable given the price paid for them.	0.975
Perceived quality (adapted from Coelho & Henseler, 2012) – Overall, I think that this travel agency has high quality. – This travel agency offers a wide range of products/services. – The quality of products/services offered by this travel agency are better than of their major competitors. – I think that the services of this travel agency has high quality. – This travel agency provides service to the customers punctually. – This travel agency provides clear and transparent information. – I consider that stores from this travel agency are well located. – The geographic distribution of stores from this travel agency is widespread.	0.951
Trust (adapted from Kim et al., 2011) – This travel agency is reliable regarding its products/services. – This travel agency has a high integrity. – This travel agency is trustworthy.	0.977
Customer loyalty (adapted from del Bosque et al., 2006) – I would recommend this travel agency to my relatives and friends. – The next time I need this service I will come back to this travel agency.	0.897

References

Amaro, S., & Duarte, P. (2015). An integrative model of consumers' intentions to purchase travel online. *Tourism Management, 46*, 64–79.

Anderson, R. E., & Srinivasan, S. S. (2003). E-satisfaction and e-loyalty: A contingency framework. *Psychology and Marketing, 20*(2), 123–138.

del Bosque, I. A. R., San Martín, H., & Collado, J. (2006). The role of expectations in the consumer satisfaction formation process: Empirical evidence in the travel agency sector. *Tourism Management, 27*(3), 410–419.

Brodie, R. J., Whittome, J. R. M., & Brush, G. J. (2009). Investigating the service brand: A customer value perspective. *Journal of Business Research, 62*(3), 345–355.

Browne, G. J., Durrett, J. R., & Wetherbe, J. C. (2004). Consumer reactions toward clicks and bricks: Investigating buying behaviour on-line and at stores. *Behaviour & Information Technology, 23*(4), 237–245.

Buhalis, D., & Law, R. (2008). Progress in information technology and tourism management: 20 years on and 10 years after the internet — The state of eTourism research. *Tourism Management, 29*, 609–623.

Caro, L. M., & García, J. A. M. (2008). Developing a multidimensional and hierarchical service quality model for the travel agency industry. *Tourism Management, 29*(4), 706–720.

Chen, C. -F., & Tsai, M. -H. (2008). Perceived value, satisfaction, and loyalty on TV travel product shopping: Involvement as a moderator. *Tourism Management, 29*, 1166–1171.

Churchill, G. A., Jr. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research, 16*(February), 64–73.

Clemes, M. D., Gan, C., & Ren, M. (2011). Synthesizing the effects of service quality, value and customer satisfaction on behavioral intentions in the motel industry: An empirical analysis. *Journal of Hospitality and Tourism Research, 35*(4), 530–568.

Coelho, P. S., & Henseler, J. (2012). Creating customer loyalty through service customization. *European Journal of Marketing, 46*(3/4), 331–356.

Corbitt, B. J., Thanasankit, T., & Yi, H. (2003). Trust and e-commerce: A study of consumer perceptions. *Electronic Commerce Research and Applications, 2*(3), 203–215.

Cronin, J., Brady, M., & Hult, T. (2000). Assessing the effects of quality, value and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing, 76*(2), 193–218.

Dick, A., & Basu, K. (1994). Customer loyalty: Towards an integrated framework. *Journal of the Academy of Marketing Science, 22*(2), 99–113.

Elliot, S., Li, G., & Choi, C. (2013). Understanding service quality in a virtual travel community environment. *Journal of Business Research, 64*(11), 1234–1238.

Gigerenzer, G., & Brighton, H. (2009). Homo heuristics: Why biased minds make better inferences. *Topics in Cognitive Science, 1*, 107–143.

Gonçalves, H. M., & Sampaio, P. (2012). The customer satisfaction-customer loyalty relationship: Reassessing customer and relational characteristics moderating effects. *Management Decision, 50*(9), 1509–1526.

Gounaris, S., Dimitriadis, S., & Stathakopoulos, V. (2010). An examination of the effects of service quality and satisfaction on customers' behavioral intentions in e-shopping. *Journal of Services Marketing, 24*(2), 142–156.

van der Heijden, H., Verhagen, T., & Creemers, M. (2003). Understanding online purchase intentions: Contributions from technology and trust perspectives. *European Journal of Information Systems, 12*, 41–48.

Jones, T., & Sasser, W. E., Jr. (1995). *Why customers defect.* Harvard Business Review, 88–99 (Nov–Dec).

Kamarulzaman, Y. (2007). Adoption of travel e-shopping in the UK. *International Journal of Retail & Distribution Management, 35*(9), 703–719.

Kim, H., Kim, T., & Shin, S. W. (2009). Modeling roles of subjective norms and eTrust in customers' acceptance of airline B2C eCommerce websites. *Tourism Management, 30*(2), 266–277.

Kim, M. J., Chung, N., & Lee, C. K. (2011). The effect of perceived trust on electronic commerce: Shopping online for tourism products and services in South Korea. *Tourism Management, 32*(2), 256–265.

Kim, W. G., & Lee, H. Y. (2004). Comparison of web service quality between online travel agencies and online travel suppliers. *Journal of Travel & Tourism Marketing, 17*(2–3), 105–116.

Kumar, V., Pozza, I. D., & Ganesh, J. (2013). Revisiting the satisfaction–loyalty relationship: Empirical generalizations and directions for future research. *Journal of Retailing, 89*(3), 246–262.

Kuo, N. T., Chang, K. C., Cheng, Y. S., & Lai, C. H. (2013). How service quality affects customer loyalty in the travel agency: The effects of customer satisfaction, service recovery, and perceived value. *Asia Pacific Journal of Tourism Research, 18*(7), 803–822.

Lai, I. K. W. (2014). The role of service quality, perceived value and relationship quality in enhancing customer loyalty in the travel agency sector. *Journal of Travel & Tourism Marketing, 31*, 417–442.

McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). Developing and validating trust measures for e-commerce: An integrative typology. *Information Systems Research, 13*(3), 334–359.

Mittal, B., & Lassar, W. M. (1998). Why do customers switch? The dynamics of satisfaction versus loyalty. *Journal of Services Marketing, 12*(3), 177–194.

Morgan, N. A., & Rego, L. L. (2006). The value of different customer satisfaction and loyalty metrics in predicting business performance. *Marketing Science, 25*(5), 426–439.

Oliver, R. L. (1997). *Satisfaction: A behavioral perspective on the consumer.* New York, NY: McGraw-Hill.

Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing, 63*, 33–44.

Ordanini, A., Parasuraman, A., & Rubera, G. (2014). When the recipe is more important than the ingredients a qualitative comparative analysis (QCA) of service innovation configurations. *Journal of Service Research, 17*(2), 134–139.

Pan, Y., Sheng, S., & Xie, F. T. (2012). Antecedents of customer loyalty: An empirical synthesis and reexamination. *Journal of Retailing and Consumer Services, 19*, 150–158.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing, 49*(4), 41–50.

Ponte, E. B., Carvajal-Trujillo, E., & Escobar-Rodríguez, T. (2015). Influence of trust and perceived value on the intention to purchase travel online: Integrating the effects of assurance on trust antecedents. *Tourism Management, 47*, 286–302.

Ragin, C. C. (2000). *Fuzzy-set social science.* Chicago: University of Chicago Press.

Ragin, C. C. (2008). *Redesigning social inquiry: Fuzzy sets and beyond.* Chicago and London: University of Chicago Press.

Rihoux, B., & Ragin, C. C. (2009). *Configurational comparative methods: Qualitative comparative analysis (QCA) and related techniques.* Los Angeles: Sage.

Roger-Monzó, V., Martí-Sánchez, M., & Guijarro-García, M. (2015). Using online consumer loyalty to gain competitive advantage in travel agencies. *Journal of Business Research, 68*(7), 1638–1640.

Rose, S., Hair, N., & Clark, M. (2011). Online customer experience: A review of the business-to-consumer online purchase context. *International Journal of Management Reviews, 13*, 24–39.

Schneider, C. Q., & Wagemann, C. (2010). Standards of good practice in qualitative comparative analysis (QCA) and fuzzy-sets. *Comparative Sociology, 9*, 397–418.

Schneider, C. Q., & Wagemann, C. (2012). *Set-theoretic methods for the social sciences. A guide to qualitative comparative analysis.* Cambridge, UK: Cambridge University Press.

Shankar, V., Smith, A. K., & Rangaswamy, A. (2003). Customer satisfaction and loyalty in online and offline environments. *International Journal of Research in Marketing, 20*, 153–175.

Szymanski, D. M., & Henard, D. H. (2001). Customer satisfaction: A meta-analysis of the empirical evidence. *Journal of the Academy of Marketing Science, 29*(1), 16–35.

Wang, H. -Y., & Wang, S. -H. (2010). Predicting mobile hotel reservation adoption: Insight from a perceived value standpoint. *International Journal of Hospitality Management, 29*(4), 752–765.

Wu, P. -L., Yeh, S. -S., Huan, T. -C., & Woodside, A. G. (2014). Applying complexity theory to deepen service dominant logic: Configural analysis of customer experience and outcome assessments of professional services for personal transformations. *Journal of Business Research, 67*(8), 1647–1670.

Zeithaml, V. (1988). Consumer perception of price, quality and value: A means-end model and synthesis of evidence. *Journal of Marketing, 52*(3), 2–22.