

Social diffusion and loyalty programs: a path to succeed

Social
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programs

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Abstract

Purpose – The purpose of this study is to define a model of social technology diffusion, comprising constructs that explain guests' likelihood of recommending their hotel loyalty program to their peers.

Design/methodology/approach – The diffusion effect is explained by commitment-trust, satisfaction with user-to-user interactivity, satisfaction with user identifiability and word of mouth. A total of 2,812 usable responses were obtained through an online questionnaire sent to guests with two or more transactions with the loyalty program.

Findings – The results suggest that commitment and trust and word of mouth are crucial to enact social diffusion. As such, hotel loyalty programs need to be leveraged through enacting social diffusion.

Practical implications – Tourism and hospitality practitioners dealing with loyalty programs should create and post new trustworthy content that might be beneficial for the hotel loyalty program in their efforts to provide a more valuable experience for guests.

Originality/value – The paper provides empirical evidence that the likelihood of sharing with other guests or the intention to belong to a hotel loyalty program community exists and then goes on to offer a range of possible responses based upon four relational mediators.

Keywords Word of mouth, Structural equation modeling, Satisfaction, Hotel loyalty program, Commitment-trust

Paper type Research paper



1. Introduction

Nowadays, social diffusion is an emerging force which is critical to leverage tourism services and subsequently the adoption of e-business in the area of e-marketing (Tsotsou *et al.*, 2010). The internet plays a key role as a communication tool (e.g. information sharing) and helps to build a closer relationship between hotels and guests and induces guests to repeat their purchase of that hotel's brand (Lacey and Morgan, 2009). The online world has become more dynamic and is changing how hotels contribute to the creation and

distribution of personalized information. In this sense, by obtaining information from the experiences of others, potential guests could be attracted to the loyalty program.

Previous research proves that social diffusion occurs when customers trust and are committed to the online service (Barreda *et al.*, 2015; Gustafsson *et al.*, 2005). The willingness of a guest to rely on the hotel loyalty program is crucial in the mediation between a website's physical characteristics and a guest's behavioral intentions (Herrero *et al.*, 2015; Javernpaa *et al.*, 1999). Online trust is a key factor behind purchasing behavior (Cugelman *et al.*, 2009), whereas commitment is a desire to maintain that behavior in the long term (Gustafsson *et al.*, 2005). Trust and commitment are key variables when decisions are related to enhancement in the scope of the relationship. However, to guarantee the continuity of a relationship, the key variable is satisfaction (Cugelman *et al.*, 2009). In this sense, commitment-trust and satisfaction are two complementary attitudinal constructs in a social diffusion process, well-established in predicting behavioral intentions (Garbarino and Johnson, 1999).

In this research, the focus is on technology enacting social diffusion. That is why loyalty programs must behave as a communication technology tool. In this sense, two satisfaction constructs are included: satisfaction with user-to-user interactivity and satisfaction with user identifiability, as two technology-oriented constructs which help guests to create and maintain social contacts, and which may influence other behavioral beliefs such as word of mouth (Livari, 2014). Word of mouth represents a favorable personal recommendation from one individual to another regarding a hotel and its services. Word of mouth is well understood as a credible source of communications and plays an instrumental role in new guest acquisition, through intentional behavior of sharing (Herrero *et al.*, 2015; Lacey and Morgan, 2009). The impact of intentional behavior of sharing and word of mouth in capturing new guests via loyalty programs is still under research (Lacey, 2015; Rong *et al.*, 2012). Furthermore, hotel loyalty programs have caught the attention of a number of researchers (Hansen *et al.*, 2010; Lacey, 2015), although more research is required to develop models able to account for guests' attitudinal and behavioral responses to social relatedness or belongingness (Hansen *et al.*, 2010, 2015; Lacey and Morgan, 2009; Rong *et al.*, 2012). Understanding the effects of hotel loyalty programs requires a view into the potential of social diffusion.

The objective of this study is, therefore, to analyze the likelihood of guests sharing hotel loyalty program contents among their friends and relatives. Attitudinal components, such as commitment-trust, satisfaction with user-to-user interactivity and satisfaction with user identifiability and behavioral variables such as word of mouth were introduced as explanatory variables for the likelihood of sharing.

To enable a better understanding of guests' behavior and make them more involved in their business decisions, hotel loyalty programs require a transformation tool such as social media platforms. Two crucial questions drove this research:

- Q1. Could loyalty programs be supported by online word of mouth referrals for capturing new segments?
- Q2. How can this be developed and made to last in a continuum relationship?

To answer these questions, we follow a threefold research process: We first attempt to assess the importance and influence of these factors in leveraging loyalty programs supported in the literature. Further, by splitting satisfaction into two dimensions (satisfaction with user-to-user interactivity and satisfaction with user identifiability), this research contributes to the literature by encompassing the expectations of guests' self-

behavior intention based on the unified theory of acceptance and use of technology (UTAUT) (Venkatesh *et al.*, 2003). This theory will impact motivation (intention) to use the system, which in turns leads to actual usage (Udo *et al.*, 2010; Venkatesh *et al.*, 2003). We then develop and validate a structural equation model to measure and understand the latent constructs. This model was tested with a sample of 2,812 questionnaires collected online by direct e-mail from one of the biggest hotel chains in Portugal.

Based on the findings, we summarize our theoretical contributions and provide managerial implications regarding how to enhance and capture the social motives and guests' behaviors while sharing their loyalty program experiences. In this sense, a new theoretical perspective is proposed, by adopting social technology diffusion in hotel loyalty programs, the crucial importance of commitment-trust and word of mouth for intentional behavior of sharing and the need for committed guests who are satisfied with the communication tools offered by the hotel loyalty programs. Finally, this study is also important for practitioners, as measurable awareness of guests can lead to changes in guest loyalty and the acquisition of new guests.

2. Conceptual development and hypotheses

2.1 *The essence of loyalty programs*

The current literature argues that a hotel loyalty program suggests a stronger working relationship, although not all guests respond and behave in the same way (Barreda *et al.*, 2015; Garbarino and Johnson, 1999). In this sense, it is crucial to identify guests' engagement with the loyalty program, depicting the attitude the guests adopt in relation to the program (Cugelman *et al.*, 2009). A loyalty program is a program that allows customers to accumulate free rewards when they make repeat purchases in a hotel (Sharp and Sharp, 1997; Liu, 2007). First, it is a program which gives points at the time of purchase, i.e. they have important psychological meaning for customers, and second, as customers can later redeem points for free rewards, point accumulation creates an anticipation of positive future events, which increases consumers' likelihood of staying in the relationship (Liu, 2007). A loyalty program requires a one-to-one "commitment" (Liu, 2007) and permits guests to communicate, interact virtually, form a social community, recommend services, post comments and share experiences (Barreda *et al.*, 2015). However, the challenge is to evaluate how attitudes shape repeat patronages. The longer a guest has been in a program, the more intrinsic motivation and interests he/she has in the program (Dorotic *et al.*, 2012; Liu, 2007; Xie and Chen, 2013).

In this sense, loyalty programs help to increase customer purchase behaviors over time, which means developing relationships based on trust and commitment rather than satisfaction, as mediators between attitudes and future intentions and behaviors (Dorotic *et al.*, 2012; Garbarino and Johnson, 1999).

All factors that involve information sharing, accurate information, marketing support, word of mouth referrals and repatronage intentions suggest that behavior can be predicted from intentions that correspond directly to that behavior (Lacey and Morgan, 2009). This assumption leads this study to the concept of "self-efficacy" or the judgment of the guests' ability to use/access their own loyalty program profile on the internet (Udo *et al.*, 2010).

2.2 *The e-business impact on loyalty programs*

Internet technology has an intrinsic global reach characteristic, especially for gratifying existing business or creating virtual business, namely, e-business (Rodrigues, 2002). E-business is an integrated approach which highlights the aspects of customer service and other tasks inherent in the electronic business, integrating a whole range of technological resources such as database systems (customer relationship management) and transaction

processing (Rodrigues, 2002). Without internet technologies, e-business would not be possible on a large scale. E-business offers the hotel a degree of relationship intensity that provides a massive expansion of business and innovation, which is crucial for loyalty programs. To work properly, loyalty programs need information systems as an empowerment tool for guests to post and share the hotel loyalty program and their own tourism experiences (Binkhorst and Dekker, 2009; Confente, 2014).

In e-business, usage levels are highest in the first year (Rodrigues, 2002). In this sense, operating loyalty programs requires knowledge of long-run customer loyalty patterns to justify and evaluate investments (Dowling and Uncles, 1997). One of the failures of loyalty programs is the complicated way of communicating about the program and another is the lack of involvement of all participants (Xie and Chen, 2013). Managers should therefore use information technologies and manage their offerings according to their behavior cycle (Law *et al.*, 2009).

The ease of use of technology and its social influence are embedded in the UTAUT (Venkatesh *et al.*, 2003). This theory assumes that attitudes toward a system will impact the motivation (intention) to use that system, which in turn leads to actual usage. The UTAUT gives us the link between technology and social diffusion, i.e. the social technology model – the degree to which an individual perceives that important others believe he/she should use the new system and the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system (Udo *et al.*, 2010).

Furthermore, this approach will provide the reasoning to predict and explain their attitudes and make them involved (Tsotsou *et al.*, 2010) in sharing the loyalty program in a technology environment.

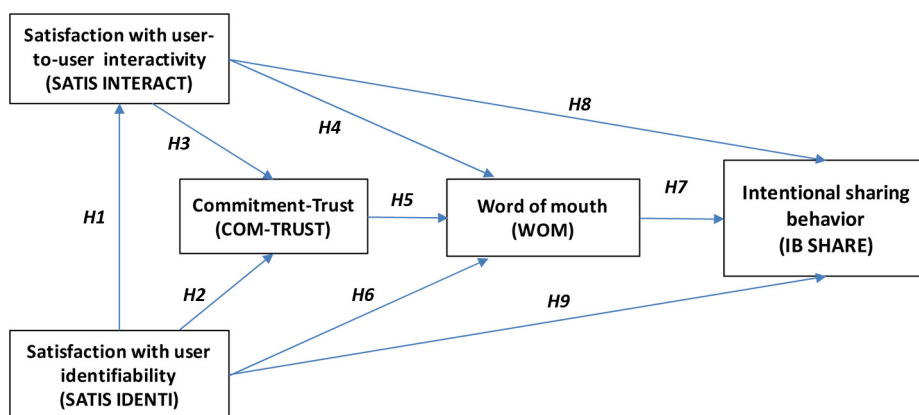
2.3 Dimensions of loyalty programs and hypotheses

Understanding different consumers' online behavior could increase the possibility of online transaction completion (Law *et al.*, 2009). Online social environments create new forms of group interactions with large numbers of participants taking on different roles (Libai *et al.*, 2010). Customers are more willing to follow the advice given to them by their predecessors than to copy their actions in markets with imperfect information (Libai *et al.*, 2010). As such, the social online influence embedded in loyalty programs helps to develop and create long-term relationships based on attitudinal factors, through trust, commitment, satisfaction and word of mouth (Barreda *et al.*, 2015; Dorotic *et al.*, 2012).

The dimensions of the model of social technology diffusion of the chain hotel loyalty program are given in Figure 1.

One of the most important attitudinal factors in building and maintaining stronger relationships between loyalty programs and guests is satisfaction (Barreda *et al.*, 2015). Satisfaction can be defined as "a result of personal evaluation of whether or not the chosen alternative meets expectations or exceeds them" (Engel *et al.*, 1993, p. 20). In such a way, satisfaction is considered a "psychological concept that involves the feeling of well-being and pleasure" (Pizam *et al.*, 2016, p. 4).

Satisfaction is considered the key mediating construct between component attitudes, such as commitment-trust evaluations and future intentions, and it is well-established in predicting behavioral intentions (Garbarino and Johnson, 1999; Gustafsson *et al.*, 2005) for both online and offline businesses (Zhang and Prybutok, 2005). However, it is important to realize that satisfaction in an online service environment, i.e. e-satisfaction, has a bigger impact on intention by reinforcing the likelihood of purchasing (Zhang and Prybutok, 2005). Furthermore, the importance of satisfaction is greater, whereby a guest reassures another about an experience or about his or her identifiability in a loyalty program, the best source

Figure 1.
Study model and
hypotheses

for facilitating personalized communications (Lacey and Morgan, 2009). Additionally, a guest believes that using information system technology will help him/her create and maintain social contacts, namely, satisfaction-with-user-identifiability (Livari, 2014).

H1. Satisfaction with user-to-user interactivity is influenced by satisfaction with user identifiability.

Besides satisfaction, trust is another critical factor in developing long-term relationships with customers in online contexts and is a key antecedent of online customer satisfaction (Barreda *et al.*, 2015). Trust is defined as the perception of “confidence in the exchange partners’ reliability and integrity” (Morgan and Hunt, 1994, p. 23). Trust is critical for customer satisfaction in developing long-term online business-to-consumer relationships (Barreda *et al.*, 2015).

Another vital attitudinal factor which gives rise to this evaluation is long-term affective commitment (Liu, 2007). Commitment has been defined as “an enduring desire to maintain a valued relationship” (Moorman *et al.*, 1993, p. 316). A commitment is considered long-term affective when a psychological attachment exists based on personal interaction, reciprocity and trust (Bowden, 2009; Gustafsson *et al.*, 2005; Verhoef, 2003). Moreover, a long-term commitment means a relationship between two or more parties who put intense and emotional effort into maintaining it (Garbarino and Johnson, 1999; Morgan and Hunt, 1994; Ou *et al.*, 2011).

The commitment-trust relational dimension resists short-term alternatives in favor of long-standing relationships with existing partners (Lacey and Morgan, 2009). Gwinner *et al.* (1998) find the psychological benefit of confidence and trust to be more important than special treatment or social benefits in consumer relationships with service firms.

Because of the enhancement in the scope of the relationship given by the commitment-trust dimension, the continuity and repetitive “stabilized mechanism” is provided by satisfaction (Ou *et al.*, 2011; Selnes, 1998) with commitment-trust being considered the construct which reflects the level of customer satisfaction (Garbarino and Johnson, 1999).

H2. Commitment-trust is influenced by satisfaction with user identifiability.

H3. Commitment-trust is influenced by satisfaction with user-to-user interactivity.

As previously mentioned, satisfaction, trust and commitment are considered attitudinal factors in a relationship. For the behavioral context, word of mouth recommendation is

proposed as an important factor affecting the vocational choice of individuals (Demir *et al.*, 2014). Positive word of mouth communication is considered a key relational outcome; it is a powerful input in decision-making and stands out as a highly trusted, reliable and credible information source (Herrero *et al.*, 2015; Ng *et al.*, 2011). In this sense, word of mouth is defined as informal communication between guests and friends/acquaintances, sharing information regarding products and services (Arndt, 1967; Rong *et al.*, 2012), with a strong and oriented link between satisfaction with user-to-user interactivity and word of mouth intention and also an effect of user identifiability on social processes (Livari, 2014). The inability to access the credibility of a source, such as user identifiability, and hold the source accountable may lead members to discount his or her contributions (Rains, 2007). Knowing the identity of a source helps, first, him or herself and, second, group members to hold him or her accountable (Rains, 2007). By acquiring the willingness to recommend, through not only satisfaction but also commitment-trust, loyalty programs could increase repurchase intentions as an important indicator of subsequent repurchase behavior at hotels and restaurants (Anderson and Sullivan, 1993; Ng *et al.*, 2011).

H4. Word of mouth is influenced by satisfaction with user-to-user interactivity.

H5. Word of mouth is influenced by commitment-trust.

H6. Word of mouth is influenced by satisfaction with user identifiability.

Nowadays, in loyalty programs, it is important to measure future behavioral intentions of customers to assess their potential intentional sharing behaviors. First, behavioral intentions “can be viewed as indicators that signal whether customers will remain with or defect from the company” (Zeithaml *et al.*, 1996, p. 33). Furthermore, the intention to transact is defined as the consumers’ intent to engage in an online exchange relationship (Pavlou, 2003). Second, the intentional sharing behavior is the transfer of satisfaction to the intention to purchase or to communicate and can be captured by such measures as repurchase intentions, word of mouth and that customer experiences are also related (Udo *et al.*, 2010; Zhang and Prybutok, 2005). In this sense, satisfaction, positive vacation experience and word of mouth affect behavioral intentions (Anderson and Sullivan, 1993; Demir *et al.*, 2014) and therefore intentional sharing behaviors.

H7. Intentional sharing behavior is influenced by satisfaction with user-to-user interactivity.

H8. Intentional sharing behavior is influenced by satisfaction with user identifiability.

H9. Intentional sharing behavior is influenced by word of mouth.

Finally, one of the most powerful tools for measuring the constructs and their relations in tourism marketing behavior studies is the structural equation model (Fornell and Larcker, 1981; Chin *et al.*, 2008; Hellier *et al.*, 2003; Lacey and Morgan, 2009; Reinartz *et al.*, 2009).

In this sense, structural equation modelling (SEM) is used in this study as an approach to testing the nine hypotheses established (Chin *et al.*, 2008; Udo *et al.*, 2010; Herrero *et al.*, 2015).

3. Research method

3.1 Web-based questionnaire survey

This research is based on data drawn from an online questionnaire via direct e-mail (Web-survey instrument) sent to the guests of a hotel chain loyalty program and covers guests

who made two or more purchases while being a member of the loyalty program (since 2011). This questionnaire was previously tested through a preliminary study conducted at the hotel chain with no modifications observed from respondents' comments. The survey questionnaire is given in [Appendix 1](#).

The questionnaire was organized into 13 variables attempting to explain four constructs derived from the literature ([Bowden, 2009](#); [Cugelman et al., 2009](#); [Hansen et al., 2010](#); [Lacey and Morgan, 2009](#); [Livari, 2014](#); [Mills et al., 2014](#); [Morgan and Hunt, 1994](#); [Oliver, 1999](#)). The four constructs used in the survey are commitment-trust, satisfaction with user-to-user interactivity, satisfaction with user identifiability and word of mouth, serving as the independent variables. Intentional sharing behavior, i.e. the number of times they shared or were willing to share, is defined as the dependent factor ([Chin et al., 2008](#); [Hansen et al., 2010](#)). These constructs and their individual items are discussed below.

The construct of commitment-trust measures the level of relationship with the loyalty program members, including four items: honesty and trust; examples of good practice; something the guest likes to be associated with; and the only way the guest books with the hotel chain. The construct of satisfaction with user-to-user interactivity is captured by using three items:

- (1) intention to be an active member of a new loyalty program members' online community;
- (2) intention to share online experiences with other customers; and
- (3) intention to post information that might be of interest to other customers.

The construct of satisfaction with user identifiability is ensured by the accuracy of the identity printed on the loyalty program membership and in the information which is provided on the website of the loyalty program. Finally, the construct of word of mouth is measured by using three items:

- (1) intention to recommend loyalty program membership to friends and relatives;
- (2) intention to recommend the loyalty program membership; and
- (3) the intention of booking upon recommendation of friends ([Hansen et al., 2010](#)).

3.2 Sample and data

The online survey questionnaires were sent to 47,593 guests with the content of the e-mail message explaining the purpose of the study with a reward for their answers – 1,000 points to be credited on their loyalty program membership, after filling in all the questionnaire. This e-mail was sent by hotel chain direct e-mail randomly by gender, age and nationality from the customer relationship management database to customers with two or more purchases.

A total of 12,113 opened the link to the questionnaire. Of these only 4,654 started to fill it in and at the end 2,812 were considered valid, which represents a response rate of 5.9 per cent. A demographic profile of the respondents is presented in [Table I](#).

This sheds light on the challenging task of using the internet to collect data. Furthermore, this shows that this loyalty program is far from being established, as only 25.45 per cent of the guests with a loyalty program membership opened the link sent by direct e-mail. Subsequently, the answers were sorted in SPSS 22.0 software to withdraw possible data entry errors.

Table I.
Demographic
characteristics of the
sample

Demographics	(%)
<i>Gender</i>	
Female	26.6
Male	73.4
<i>Age</i>	
20 or less	0.0
21-30	2.4
31-40	16.3
41-50	24.6
51-60	24.3
61-70	25.2
71 or more	7.1
<i>Education level</i>	
Basic school	0.8
Secondary school	13.9
Higher education	85.3
<i>Nationality</i>	
Portuguese	53.8
British	15.3
Spanish	6.9
Brazilian	6.5
German	5.0
Other	12.5
<i>Financial resources</i>	
Very little	0.4
Little	1.5
Sufficient	70.1
Very good	27.2
Unlimited	0.9
<i>Occupation</i>	
Student	0.2
Retired	26.3
Unskilled employee	0.3
Skilled employee	12.0
Homemaker	0.7
Self-employed	14.2
Middle management	16.7
Higher management	29.6

Note: $n = 2,812$

3.3 Data analysis

The research model was assessed through SEM, using AMOS 22.0 software. SEM is conducted to measure the four constructs which it is not feasible to measure directly and relations within these constructs called path analysis. The maximum likelihood estimation method of SEM was applied to the analysis as it is robust to minor variations of normality (Hellier *et al.*, 2003; Marôco, 2010; Ng *et al.*, 2011) and to estimate a set of model parameters that maximize the likelihood of observing the true value of the population, with normal distribution (Hair *et al.*, 2011; Marôco, 2010; Reinartz *et al.*, 2009). Indicators to assess normal distribution of the parameters are in Appendix 2. Specifically, a two-step approach was used

(Anderson and Gerbing, 1988). The first is the measurement model, i.e. it starts with common assumptions about items and their relationships to the dependent factor and sources of error (Marôco, 2010), through confirmatory factor analysis (CFA). To test measurement model reliability, convergent and discriminant validity was first conducted and then other statistical tools were used for data analysis such as correlation analysis. The second stage was to perform SEM to test and validate the hypothesis established, i.e. validate the structural relationships between the latent constructs in the research model (Javernpaa *et al.*, 1999; Ou *et al.*, 2011; Ng *et al.*, 2011).

4. Results

4.1 Measurement model

The CFA of the measurement model specifies the relationship of each observed variable with the latent construct. The sample was randomly divided in two (1,406 each). The results showed a good overall fit for both, suggesting that the CFA structure is feasible for any sample of data, which ensures the generalizability of the results. This is confirmed by CFA estimate values, indicated in Table II.

Results show that satisfaction with user-to-user interactivity is mostly explained by the guest's willingness to share online experiences with other guests (SATIS INTERACT 2) (0.980) and be an active member of the loyalty program members' online community (SATIS INTERACT 1) (0.948), as argued by Livari (2014) and by Mills *et al.* (2014), suggesting that even in an online environment, one-to-one relations are favored. As for commitment-trust, results indicate that the program and the loyalty program membership is an example of good practice (0.906) (COM-TRUST 3) (Venkatesh *et al.*, 2003; Hansen *et al.*, 2010), suggesting that engagement with the program depends on the evidence of good performance. Moreover, results show that accuracy and updated information provided on the website (such as name, address and contact information on the loyalty card) mostly explained satisfaction with user identifiability (0.910) (SATIS IDENTI 1) (Livari, 2014), which posits that updated information is a must-have for the success of loyalty programs. Finally, word of mouth is mostly explained by the guest's recommendation not only to friends and relatives (0.871) (WOM 3) but also to anyone who asks for her/his advice or opinion (0.809) (WOM 2) (Lacey and Morgan, 2009; Hansen *et al.*, 2010).

Furthermore, an average variance extracted, i.e. the degree to which the measurement items are explained by the construct and are dissimilar, above 0.5 is adequate for convergent

Items	Constructs	Standard estimate	SE	CR	<i>p</i>
COM-TRUST 1	← Commitment-trust	0.213	0.038	10.757	***
COM-TRUST 2	← Commitment-trust	0.860	0.024	48.374	***
COM-TRUST 3	← Commitment-trust	0.906	0.024	50.198	***
COM-TRUST 4	← Commitment-trust	0.777			
SATIS IDENTI 1	← Satisfaction with user identifiability	0.910	0.057	20.02	***
SATIS IDENTI 2	← Satisfaction with user identifiability	0.791			
SATIS INTERACT 1	← Satisfaction with user-to-user interactivity	0.948			
SATIS INTERACT 2	← Satisfaction with user-to-user interactivity	0.980	0.009	113.6056	***
SATIS INTERACT 3	← Satisfaction with user-to-user interactivity	0.834	0.012	70.126	***
WOM 1	← Word of mouth	0.441	0.029	21.651	***
WOM 2	← Word of mouth	0.809			
WOM 3	← Word of mouth	0.871	0.027	40.134	***

Table II.
CFA values

discriminant validity (Gustafsson *et al.*, 2005). In this sense, Table III shows the results of convergent and discriminant validity.

For the analysis of construct reliability, a component reliability above 0.7 for all constructs is considered indicative of a reliable instrument (Udo *et al.*, 2010), which means good internal consistency and reliability, as indicated by Marôco (2010, p. 175). In this sense, it can be concluded that the results in Table III show signs of high reliability for all constructs.

In the present analysis, goodness-of-fit measures were considered to be able to summarize the overall fit of the model. Despite the overall fit indices, with χ^2/df ratio = 5.34 ($p = 0.000$), being out of range (between 2.0 and 5.0 for some authors' suggestions) (Marôco, 2010, p. 43; Barreda *et al.*, 2015), the minimum was achieved. However, the sample size is more than 250, reaching 2,812. Moreover, several fit-indices are considered acceptable: goodness-of-fit index (GFI) = 0.985; adjust GFI = 0.976; normed fit index (NFI) = 0.987; comparative fit index (CFI) = 0.989; incremental fit index (IFI) = 0.989; relative fit index (RFI) = 0.982, as these values are greater than 0.9 (Anderson and Gerbing, 1988). However, for root-mean-square residual (RMSR) index and for root-mean-square error of approximation (RMSEA) index, the values should be less than 0.1 to be acceptable (Anderson and Gerbing, 1988) (RMSR = 0.033, RMSEA = 0.039).

As the CFA presents good fits, without validity concerns and with all the items willing to contribute to the latent construct above 0.7, and further as all the factors were proved to be freely correlated among themselves, the structural model could be tested.

4.2 Hypotheses testing and validation

The estimation of the complete model with the path coefficients and significant levels is given in Table IV.

Almost all the coefficients are significant at a 1 per cent significance level, except *H8*, between satisfaction with user-to-user interactivity (SATIS INTERACT) and intentional sharing behavior (IB SHARE), which is significant at a 5 per cent significance level. Despite the χ^2/df ratio = 6.88 ($p = 0.000$) being out of range, the minimum was achieved. The other relationships seem to indicate a good overall model fit (absolute fit index: GFI = 0.979; RMSEA = 0.046. Incremental fit index: NFI = 0.981; IFI = 0.984; RFI = 0.974; CFI = 0.984). An indicator such as parsimonious normed fit index (PCFI) shows the parsimony of the model. The PCFI value (0.719) is between 0.6 and 0.8, indicating good adjustment (Marôco, 2010, p. 51). The other indicators of the model fit summary indicate an adequate and incremental fit for the structural model.

Table III.
Convergent and
discriminant validity

Constructs	CR	AVE	MSV	ASV	Commitment-trust	Satisfaction with user-to-user interactivity	Word of mouth	Satisfaction with user identifiability
Commitment-trust	0.809	0.553	0.386	0.175	0.743			
Satisfaction with user-to-user interactivity	0.945	0.852	0.085	0.049	0.225	0.923		
Word of mouth	0.761	0.534	0.386	0.195	0.621	0.292	0.731	
Satisfaction with user identifiability	0.841	0.727	0.114	0.071	0.297	0.109	0.338	0.852

The conceptual model comprises a number of theoretical hypotheses. The strong validity and reliability, as well as the resulting fit indices provide robust support for the study hypotheses. Results indicate that the model fits the data well. All the research hypotheses were supported (Table IV).

The results in Table IV show a significant statistical relationship between satisfaction with user identifiability (SATIS IDENTI) and satisfaction with user-to-user interactivity (SATIS INTERACT) (*H1*: path coefficient = 0.175; $p < 0.001$). This implies that when guests are satisfied with the way the loyalty program addresses them and with correct information about their own name, they are likely to feel satisfied enough to share online experiences with other customers in a loyalty program online community, as argued by Livari (2014). There is also a significant relation between SATIS IDENTI and commitment-trust (COM-TRUST) (path coefficient = 0.217; $p < 0.001$) showing that a committed and trusted relationship to the loyalty program will only occur if the hotel carefully manages information about personal identification (Selnes, 1998; Hansen *et al.*, 2010; Livari, 2014), and as such *H2* is not rejected. The result for *H3*, which proposes that SATIS INTERACT positively influences guests' COM-TRUST, was also significant (path coefficient = 0.095; $p < 0.001$). Interacting and sharing information or experiences with other guests of the loyalty program community strengthens the belonging attitude to the loyalty program members (Lacey and Morgan, 2009). These findings suggest that intentions of interacting with other guests and having their own accurate personal information printed on the loyalty program membership are fundamental in building trust and commitment in establishing a strong and continuous relationship between guests and the loyalty program (Livari, 2014; Mills *et al.*, 2014; Lacey and Morgan, 2009). SATIS IDENTI has a stronger effect on COM-TRUST than SATIS INTERACT. The test results confirmed that SATIS INTERACT had a significant and positive effect on word of mouth (WOM) (*H4*: path coefficient = 0.110; $p < 0.001$). This provides support for satisfied guests as active members of the loyalty program online community having a higher effect in recommending this loyalty program membership to anyone or to friends and relatives than on building trust with the loyalty program. Previous research indicates that SATIS IDENTI is positively related to WOM (Hansen *et al.*, 2010; Williams and Naumann, 2011; Livari, 2014), confirming *H6* (path coefficient = 0.181; $p < 0.001$). This suggests that it is crucial that guests with up-to-date and

Structural path	Standardized path coefficient	<i>t</i>	Hypothesis supported?
<i>H1</i> . SATIS IDENTI → (+)SATIS INTERACT	0.175	0.001***	Yes
<i>H2</i> . SATIS IDENTI → (+)COM-TRUST	0.217	0.001***	Yes
<i>H3</i> . SATIS INTERACT → (+)COM-TRUST	0.095	0.001***	Yes
<i>H4</i> . SATIS INTERACT → (+)WOM	0.110	0.001***	Yes
<i>H5</i> . COM-TRUST → (+)WOM	0.808	0.001***	Yes
<i>H6</i> . SATIS IDENTI → (+)WOM	0.181	0.001***	Yes
<i>H7</i> . WOM → (+)IB SHARE	0.736	0.001***	Yes
<i>H8</i> . SATIS INTERACT → (+)IB SHARE	0.041	0.05**	Yes
<i>H9</i> . SATIS IDENTI → (−)IB SHARE	0.153	0.001***	Yes

Notes: H = hypothesis; SATIS IDENTI = satisfaction with user identifiability; SATIS INTERACT = satisfaction with user-to-user interactivity; COM-TRUST = commitment-trust; WOM = word of mouth; IB SHARE = intentional sharing behavior; ** $p < 0.05$; and *** $p < 0.001$

Table IV.
Structural model
results

accurate personal information match with the intention to recommend the loyalty program to other persons, friends and relatives.

COM-TRUST had a significant positive effect on WOM, lending support to *H5* (path coefficient = 0.808; $p < 0.001$) and between WOM and IB SHARE for *H7* (path coefficient = 0.736; $p < 0.001$). These findings are the strongest of all hypotheses and consistent. It shows a significant positive relationship between COM-TRUST and WOM (defended by Morgan and Hunt, 1994; by Ranaweera and Prabhu, 2003; and by Herrero *et al.*, 2015). A guest who trusts in the honesty of the hotel chain and its program and is also attached to and associated with it will be more likely to recommend the loyalty program membership to friends and relatives. The relationship between WOM and IB SHARE completes the former behavior on account of the times friends and relatives recommended by guests have joined the loyalty program, as argued by Lacey and Morgan (2009) and by Udo *et al.* (2010). *H8*, which assumes that SATIS INTERACT is positively associated with IB SHARE, is supported (path coefficient = 0.736; $p < 0.05$). This finding reveals that belonging to a loyalty program online community and sharing experiences and information with that community is fundamental in a long-term relationship with the program and with the friends and relatives who are recommended to join it (Demir *et al.*, 2014).

Finally, we found that SATIS IDENTI was negatively related to IB SHARE; however, *H9* is supported (path coefficient = -0.153 ; $p < 0.001$). A hotel loyalty program which is concerned only with guest information will generate negative intentional sharing behavior. This result is consistent with Bowden (2009), who argues that for a guest to attain the willingness to recommend, a psychological bond with the loyalty program is necessary, only achieved through the mediation of SATIS INTERACT or WOM. These findings suggest the importance of the presence of committed behavior in loyalty programs. Guests who recommend the loyalty program membership will be more likely to be influenced in their intentional behavior to repurchase in the future.

5. Discussion and conclusions

5.1 Conclusion

This research discusses customer behaviors within multiple communication strategies in a hotel chain loyalty program. By focusing on satisfaction, trust, commitment and WOM, this study offers a comprehensive explanation of the development of how customer behaviors in a loyalty program potentiate new communications strategies to achieve new customers through the loyalty of existing ones.

This study focuses on the study of the attitudinal/behavioral dimensions, such as satisfaction (user-to-user interactivity and user identifiability), commitment-trust and word of mouth and determining how this is influenced by the presence of information technology systems by using SEM, which in this research constitutes the model of social technology diffusion. Attitudinal/behavior dimensions are explained by the SEM which provides a firewall to increase and maintain a long-term relationship with guests in a loyalty program. It is argued that the main dimensions of guests' attitudes to word of mouth intentions and therefore to sharing can be assessed considering the present model. In fact, the intensity of the relationship between guests and the CRM program in a long-term view differs according to their identifiability and accurate information given by the hotel's loyalty program. Measuring attitudinal/behavior dimensions is scarce and a difficult area of research because of available data and the evolution of customers' behavior. However, the SEM confers the possibility of analyzing the intensity of relationship between guests, through their intentional sharing behavior and the intention of the hotel chain loyalty program to motivate guests to influence others to join the program.

Thus, this research confers the necessary formality to analyze consumer behavior states and to enhance the development of the behavior/attitudinal components, not only between customers themselves, but also between customers and loyalty programs. Further, the present research confers visibility on hotel loyalty programs and improves communication between hotels and customers.

5.2 Theoretical implications

From a theoretical perspective, the present study contributes to the body of knowledge on sharing economies in loyalty programs, research on consumers' behavioral intentions and word of mouth in a loyalty program. The aim of this study is to analyze the likelihood of guests sharing hotel loyalty program contents among their friends and relatives. Therefore, attitudinal components (commitment-trust, satisfaction with user-to-user interactivity and satisfaction with user identifiability and word of mouth as behavioral variable) were introduced as explanatory variables of the likelihood of sharing (Barreda *et al.*, 2015). This study presents one of the few empirical examinations of relationship marketing concepts in the consumer market place (Garbarino and Johnson, 1999). In this sense, the present study proposes theoretical perspectives regarding how to enhance and capture social motives and guests' behaviors while sharing their loyalty program experiences by adopting social technology diffusion.

The problems associated with measuring either attitudinal/behavioral dimensions or determining how this is influenced by the presence of internet technology makes it a difficult area of research. In this study, the model of social technology diffusion was tested and the use of the SEM approach provides a firewall because of its capability to facilitate the evaluation of complex structures of relationships such as the customers' behaviors in a hotel chain loyalty program. The first explains the antecedents and outcomes of the key-relational constructs (commitment-trust, satisfaction with user-to-user interactivity, satisfaction with user identifiability and word of mouth) and the latter measures the intensity of relationships between guests, through their intentional sharing behavior to increase and maintain a long-term relationship with guests in a loyalty program.

The results also suggest that a hotel chain loyalty program intends to motivate guests to influence others to join the program. A well-identified and satisfied guest will recommend the hotel chain loyalty program to several potential new guests. To assess overall willingness to recommend, this research outlines the influence of the main dimensions of guests' attitudes on word of mouth intentions and therefore on sharing. Word of mouth and the two types of satisfaction seem to act as mediators between commitment-trust and sharing intentional behavior. One of the main influencing factors in guests' behavior is word of mouth because of the fact that if hotels develop and intensify the relationship between guests and program, i.e. identifying exactly what customers value, it will attract potential long-term guests (Hellier *et al.*, 2003). This will create a continuous net worth for them, using the hotel loyalty program website to share their own experiences online (Rong *et al.*, 2012; Herrero *et al.*, 2015). The results also differentiate between those sharing and not sharing, willing to recommend or not and having accurate and imprecise information in the program.

In addition to the importance, not only mainly of word of mouth but also of other factors in the customers' behavior, the overall model based on the UTAUT, together with its implications for personalized communication, is a source of loyalty. This study concludes that loyalty programs need to try to embed service in customers' existing and future contexts, activities and experiences (Stauss *et al.*, 2010), through two types of components: attitude and behavior.

5.3 Managerial implications

In a marketplace, in which hotels spend millions of dollars on word of mouth initiatives, managers need a better understanding of loyalty program strategies. Loyalty programs are no longer only platforms to manage the information of each guest. These programs have advanced to become a critical part of brand marketing (Barreda *et al.*, 2015).

The service literature argues that specialized marketing should be used to build customer relationships (Berry, 1995). For this reason, and as a loyalty program is a business model for keeping customers, it should be possible for websites to allow the visitor to customize their content according to their preferences (e.g. Facebook) so as to encourage repeat visits and avoid a dissuasive lack of news. If the information does not change, visitors lose interest (Rodrigues, 2002). After customers have returned home, they often liked to share and exchange their travel experiences (Law *et al.*, 2009).

In this sense, for example, a marketing technique such as opening two-way lines of communication and guaranteeing service should be used (Garbarino and Johnson, 1999). Moreover, in a virtual tourism community, the loyalty program could offer guests the possibility of downloading an app with a guide to the city where hotel is located or a virtual movie about the hotel they choose (local culture). This purpose helps hotels attract new online loyalty program guests, as a superior e-marketing strategy (Binkhorst and Dekker, 2009).

Important strategies for practitioners also include posting trustworthy content on loyalty programs. For example, pictures of the guestroom could be shown in the online guest loyalty program account. These pictures should reflect the actual guestrooms that guests will find once they check into the hotel. This online tool should be user-friendly and properly maintained, otherwise brands could instantly lose credibility with their online visitors (Barreda *et al.*, 2015).

5.4 Limitation and future research

The study has a limitation in the procedure of data collection, which is restricted to the period of November/December 2014, a peak season for the majority of hotel chain guests.

For future research, it may be interesting to test the model in business-to-business markets and a study of how word of mouth develops over time would make an important contribution to theory.

Finally, there are strong linkages between commitment-trust and word of mouth, showing that guest advocacy is a reality for extended projected future repatronage behaviors. This could suggest a driver to contribute to the loyalty behavior of loyalty program members. In this sense, the hotel chain loyalty program should focus on improving these factors, by using periodic surveys to continuously explain certain behaviors.

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Appendix 1. The web-survey questionnaire

1. Card Number

2. E-mail

Commitment-Trust (COM-TRUST)

Please mark only one oval per row.

Totally disagree / Disagree / Partially agree / Agree / Totally agree

3. I only book with this hotel chain because I have the card. (COM-TRUST 1)
4. My connection to the program and the card...
- 4.1 Is honesty and truth. (COM-TRUST 2)
- 4.2 Is an example of good practice. (COM-TRUST 3)
- 4.3 Is something I like to be associated with. (COM-TRUST 4).

Satisfaction with user-to-user interactivity (SATIS INTERACT)

Please mark only one oval per row.

Totally disagree / Disagree / Partially agree / Agree / Totally agree

5. I would like to be an active member of the hotel chain card online community. (SATIS INTERACT 1)
6. I would like to share online experiences with other customers. (SATIS INTERACT 2)
7. I would like to post information that might be of interest to other customers. (SATIS INTERACT 3)

Satisfaction with user identifiability (SATIS IDENTI)

Please mark only one oval per row.

Totally disagree / Disagree / Partially agree / Agree / Totally agree

(continued)

8. The information provided (such as name, address and contact information) on the website of the hotel chain card is accurate and up-to-date. (SATIS IDENTI 1)
9. The information printed on the card represents my identity (such as the means of address using my professional title). (SATIS IDENTI 2)

Word of mouth (WOM)

Please answer placing a dot in the field that best fits your opinion.

No / I don't know / Yes / Yes, of course / Definitely

10. Have any of your friends or relatives booked upon your recommendation? (WOM 1)
11. I will recommend this card whenever anyone asks for my advice or opinion. (WOM 2)
12. I will recommend this card to my friends and relatives. (WOM 3)

Intentional behaviour of sharing (IB SHARE)

Please mark only one oval.

1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 or more

13. If you have information that your friends or relatives have already joined the loyalty program, to how many of those persons have you recommended the hotel chain loyalty card?

Demographic attributes

Please mark only one oval.

14. *Age* (Up to 20 years old / From 21 to 30 years old / From 31 to 40 years old / From 41 to 50 years old / From 51 to 60 years old / From 61 to 70 years old / 71 years old or more).
15. *Sex* (Female / Male).
16. *Education* (Basic school / Secondary school / Higher education).
17. *Financial resources* (Very little / Little / Sufficient / Very good / Unlimited).
18. *Occupation* (Student / Retired / Unskilled employee / Skilled employee / Homemaker / Self-employed / Middle management / Higher management).

19. *Nationality*
-

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Table AI.
Assessment of
normality

Variable	Minimum	Maximum	Skew	CR	Kurtosis	CR
Q3. I only book with this hotel chain because I have the card	1	5	−0.404	−8.751	−0.885	−9.575
Q4.1. My connection to the program and the card is honesty and truth	1	5	−0.661	−14.308	1.192	12.901
Q4.2. My connection to the program and the card is an example of good practice	1	5	−0.559	−12.104	1.072	11.603
Q4.3. My connection to the program and the card is something I like to be associated with	1	5	−0.412	−8.913	0.763	8.255
Q5. I would like to be an active member of the hotel chain card online community	1	5	−0.195	−4.213	−0.62	−6.715
Q6. I would like to share online experiences with other customers	1	5	−0.269	−5.813	−1.043	−11.29
Q7. I would like to post information that might be of interest to other customers	1	5	−0.335	−7.251	−1.044	−11.303
Q8. The information provided on the website of the hotel chain card is accurate and up-to-date	1	5	−1.013	−21.937	1.063	11.502
Q9. The information printed on the card represents my identity	1	5	−0.774	−16.743	0.644	6.967
Q10. Some of my friends and relatives book or booked upon my recommendation	1	5	0.202	4.377	−0.604	−6.535
Q11. I will recommend this card whenever anyone asks for my advice or opinion	1	5	0.029	0.619	−0.405	−4.378
Q12. I will recommend this card to my friends and relatives	1	5	0.218	4.725	−0.616	−6.662
					24.088	34.837

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