“Brand loyalty towards online accommodation booking platforms”

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BRAND LOYALTY TOWARDS ONLINE ACCOMMODATION BOOKING PLATFORMS

Abstract

This study investigates the brand loyalty of consumers in the online booking platform industry. The Mabalingwe Nature Reserve served as a case study, while the Mooolla and Bisschoff brand loyalty model was used to measure brand loyalty across twelve antecedents. This study aimed to, firstly, validate the model for use in online booking platforms, secondly, to measure the reliability of the data, and finally, to measure brand loyalty across twelve antecedents in online booking platforms. Online questionnaires were distributed via an online link by the booking managers of the game reserve, and 131 responses were captured; this represented a statistically adequate sample as per the KMO measure (.741). The descriptive statistics, using a 5-point Likert scale, showed that Brand trust (4.03) and Customer satisfaction (3.96) are the most important brand loyalty antecedents, while Culture (2.34) is the least important brand loyalty antecedent in an online booking platform. Exploratory factor analysis validated the questionnaire for online booking platforms, while Cronbach's alpha coefficient (.701) indicated that the reliability of the data is acceptable. Regarding latent variable identification, Brand quality and Brand relationship are two most important factors, respectively, explaining variance of 13.1% and 8.7%. The study culminated in a model to measure and manage brand loyalty of online booking platforms. This model can be operationalized for use by managers, researchers, and academia.

Keywords

brand loyalty, online booking platforms, customer satisfaction, brand management

JEL Classification

M31, M37, Z33

INTRODUCTION

Tourists traveling to South Africa require bookings for accommodation. The Internet has dramatically changed the way to conduct business in the past two decades, and online travel bookings via booking platforms are no exception. The once tedious process of actually contacting each accommodation provider to make a reservation for a specific date, checking availability, making deposits, and providing proof thereof is now easily performed and managed by a booking platform (Satguru Travel, 2019). These booking platforms now link the consumer with the supplier in real time (Bookeo, 2019). Formally, an online booking platform is defined as software that is used to make and manage reservations (Medium.com, 2019). But most platforms also have access to features such as real-time booking and availability, attractive call to action, social media integration (Googleflights.com, 2019), online visual calendar, multiple options to choose from (Hotels.com, 2019), comparative pricing (Trivago.com), location maps (Booking.com, 2019), and online reviews (TripAdvisor, 2019).

This study investigated booking at Mabalingwe Nature Reserve (MNR). The nature reserve is a privately owned reserve located in the Limpopo province of South Africa. The nature reserve has a strict "no day visitors" policy, which means every guest entering the nature reserve has a confirmed accommodation booking within the nature reserve. Most of these bookings are made online via booking platforms.

1. LITERATURE REVIEW

1.1. Brands

The traditional definition of a brand is seen as an organization's logo, sign, name, or any other invisible or visible association that represents an organization so that customers can differentiate its products from their competitors (Shen, 2018). Shen (2018) continues to state that a well-known brand would affect the customers' perceptions and has the potential to evoke comfort with their purchase process. The term "brand" is defined by the influential American Marketing Association (2019) as a name, term, design, symbol, or any other feature that identifies one seller's good or service as distinct from those of other sellers. Alan (2019), however, notes that there might be some confusion about what a real brand is. He explains his view by defining the term brand in detail and by breaking it down into the following four sub-definitions, namely:

- psychological and emotional relationship one has with the organization or a brand;
- type of product or service manufactured or delivered using a specific name;
- identifying a product or service with a name, symbol, design term, or any other attributes, which distinguish it from competitors (Kotler & Armstrong, 2019);
- organizational personality the brand represents (Tailor, 2019).

A brand name is a strategic tool that helps organizations to differentiate themselves from their competitors. Customers expect products to have branding, and they often build relationships with brands that they trust. As a result, they will frequently purchase these brands even if identical competitive branded products are available. Some customers will only purchase a particular brand and not even consider substitute products. They will display high levels of brand loyalty and rather go without a specific product, although there are acceptable alternatives on the market (Tailor, 2019). For example, in purchasing a new mobile phone, a customer will not accept viable Huawei phones

but insist on buying an Apple iPhone 11 because of their brand loyalty to Apple Inc. (Geldenhuys, 2019). Similarly, some shoppers shop only at Pick n Pay for their groceries or book their accommodation via Booking.com; this shows loyalty to the retail chain.

1.2. Brand loyalty

Brand loyalty has many definitions because customers might perceive brand loyalty differently. Some authors place more emphasis on repeat purchases; others consider preferences and various degrees of dedication and commitment towards a specific brand to be loyal, while some consider customer satisfaction similar to brand loyalty. This study underpins the views of TrackMaven (2019) that brand loyalty is the tendency of consumers to purchase one brand's products over another continuously.

Gunelius (2019) states that the repeated purchase action of a brand by consumers can be conscious or unconscious buying behavior; that is because consumers trust that the brand will continue to deliver and satisfy the consumers' needs and meet their expectations. Loyal customers will not purchase a competitor's products when their preferred brand is not available. Some will even go as far as to visit multiple shops to locate their desired brand because they are only comfortable with the specific brand and trust their desired brand (Gunelius, 2019). In this regard, Carol (2019) adds that brand loyalty is a positive association that consumers have towards a particular brand's product, which they demonstrate by their repeated purchase behavior, even though a viable alternative competitive brand's product is available to select. Brand loyalty is a result of a relationship between the customer and the organization. A customer buys a specific brand from a specific organization and evaluates the purchase to see if it meets expectations. Repeated buying instills trust in the product and as soon as trust is established, customers can start building their relationship with a brand (Lamb et al., 2015). Customers then commit to the specific brand and is more likely to enter into repeat behavior of the same brand, while they are also less likely to be influenced by competitors' products or marketing strategies (Pawpa, 2018).

1.3. Measuring brand loyalty

The exact wording of Peter Drucker's seminal quotation that what gets measured, gets done, and if one cannot measure it, one cannot manage it or what gets measured, gets managed is unclear; however, whichever wording is preferred, the value of measurement in management is crystal clear (Prusak, 2010). These words of wisdom still ring true today in the management of modern businesses and likewise apply to brand loyalty as a competitive strategy (Tartaglione, Cavacece, Risso, & Granata, 2019). Only by measurements can managers characterize areas of performance and non-performance in brand loyalty. Kyriakidis and Rach (2010, p. 8) also conveyed that in 2010, astonishingly, only one in three organizations measure the performance of their brand. More recently, Gartner (2019) states that an estimated 50% of organizations engage in some form of brand performance measurement, which encompasses in brand impacts on the behavior existing customers, keeping their brand relevant, staying aligned to the changing needs of their target audience, and measuring the impact of brand investments (Gartner, 2019).

Although many brand loyalty measurement models exist, researchers agree that identifying the relevant antecedents for the specific brand is crucial (Jacoby, 1971; Klemperer, 1987; Punniyamoorthy & Raj, 2007; Moolla & Bisschoff, 2012; Hill, 2018). These antecedents should also befit the brand's target market to ensure reliable results. It is also commonly accepted that to measure these antecedents of brand loyalty, the measuring criteria and antecedents should be validated for the specific market and brand (Wong & Merrilees, 2008; Hill, 2018; Kotler & Armstrong, 2019; Tartaglione et al., 2019). The identification of brand loyalty antecedents for the tourist market and its respective measuring criteria follows next.

1.4. Brand loyalty antecedents

Moolla and Bisschoff (2012) developed a brand loyalty conceptual framework to identify the antecedents that influence behavior related to brand loyalty. The framework was developed, and twelve most important brand loyalty influences were identified (Moolla & Bisschoff, 2012). The most important factors that play a role in the measurement of brand loyalty in the fast-moving consumer goods (FMCG) industry was the primary aim

of Moolla's study. According to Moolla (2012), several influences of brand loyalty have been identified and tested over the years. Moolla (2010) first identified 26 influences based on brand loyalty studies in his literature review, by much-admired academics such as Schijns (2003), Rundle-Thiele (2005), Musa (2005), Punniyamoorthy and Raj (2007), Traylor (1981), Jacoby and Chestnut (1978), Dick and Basu (1994), Chaudhuri and Holbrook (2001), Park (1996), Jensen and Hansen (2006), Giddens (2001), Maritz (2007), Kim et al. (2008) (all cited by Moolla and Bisschoff, 2012, pp. 126-140). These 26 influences were reduced to 12 antecedents of brand loyalty (see Table 1), whereafter the model was statistically validated using structural equation modeling. The model has a good fit with a CFI index of 0.82; the index exceeds 0.80 (Bentler, 1990). These brand loyalty antecedents are defined, their respective measuring criteria listed, and the descriptive statistics shown in Table 1.

2. AIMS

This study aims to:

- determine the most preferred online booking platform of guests staying at the nature reserve;
- measure brand loyalty towards online booking platforms;
- provide a demographic profile of respondents.

3. METHODS AND DATA

3.1. Questionnaire

The study empirically investigates brand loyalty within online booking platforms. The twelve brand loyalty antecedents were measured using a 5-point Likert scale, while demographic information was analyzed using inferential statistics and frequencies. The questionnaire consists of two sections:

- Section 1 captures demographic information. The section also had two screening questions

to ensure that only respondents who made on-line bookings complete the survey.

- Section 2 consists of 50 close-ended questions, which captured responses on a five-point Likert scale. The data collection period took approximately six weeks to distribute the questionnaires via an online link that was distributed by the booking manager of the nature reserve.

The questionnaire was successfully adapted, validated, and applied in several industries (such as health [generic and original medicines], banking, public services, and agriculture), but never for on-line booking research. Therefore, the original questionnaire was also adapted and statistically validated to measure brand loyalty of online booking platforms. The questionnaire captured the brand loyalty responses on a five-point Likert scale (where 1 = strongly disagree and 5 = strongly agree).

3.2. Study population

The study population consisted of tourists who visited the nature reserve between January 1, 2019 and August 31, 2019. Only individuals who had made an online accommodation booking were considered part of the population. No sample was drawn.

3.3. Data collection

Data were collected online via Google Forms. The data collection consisted of several steps. These are:

Step 1. Obtain authorization from the nature reserve to conduct the research.

Step 2. The final questionnaire's Google Forms address was provided to the bookings manager of the reserve who sent a collective email to all the customers who stayed at the nature reserve between January 1, 2019 and August 31, 2019. This email contained an invitation letter to participate in the study and a live link on which the customers could click to transfer them to the first page of the questionnaire, where they found the letter of consent.

Step 3. After reading the letter of consent, respondents could agree by clicking on the "Yes" button to continue to the questionnaire. If they clicked on the "No" tick box, they were thanked for their time and did not receive the questionnaire to complete.

Step 4. If they agreed and gave consent for their data to be used, the questionnaire opened up, and the customers could now complete the questionnaire.

Source: Adapted from Scholtz (2014, p. 6).

Figure 1. Data analysis flow chart

Step 5. After completion, the data were automatically saved as part of the other responses. It is not possible to identify any respondent (or IP address) to any specific data entry. The data remain anonymous.

3.4. Data analysis

A quantitative research design collected data were analyzed using the Statistical Package for Social Science (version 25) (IBM SPSS, 2018). Firstly, the Kaiser, Meyer, and Olkin test was done to determine the adequacy of the sample size and the sphericity properties of the data at the significance level ($p \leq 0.05$) using Bartlett's test of sphericity. Satisfactory results led toward exploratory factor analysis. The reliability of the data was determined by calculating the Cronbach's alpha coefficient. The data analysis flow and sequence are explained in Figure 1.

3.5. Research ethics

The study was submitted for scrutiny and approval to the North-West University's Faculty of Economic and Management Sciences Ethics

Committee. The committee approved the study as a low-risk study and registered a formal ethics number NWU-01320-19-A4.

4. RESULTS

4.1. Descriptive statistics per brand loyalty antecedent

The data from the validated questionnaire were used to measure brand loyalty antecedents. Table 1 shows the descriptive statistics on customer satisfaction. The mean values and standard deviation values were calculated. The standard deviation provides a secondary measure; it indicates whether the respondents agree on the questions, and to what extent (Field, 2009).

The majority (39.7%) of the respondents use an online booking platform at least once every 2-3 months. 34.4% of the respondents indicated that they use an online booking platform at least once in six months. Only 3.1% indicated that they use

Table 1. Descriptive statistics and the origins of the questionnaire items

Source: Compiled from Moolla and Bisschoff (2012), Hill (2018), Cole (2019), Lloyd (2019), All Business (2019), Warc (2019), Debitoor (2019), and Business dictionary (2019).

Antecedent	Definition	Code	Adapted measuring criteria for electronic booking platforms	Source	Mean	SD
Customer satisfaction (3.96)	The degree to which customer expectations of a brand are met or exceeded	CUS01	I am very satisfied with the online booking system that I use	Delgado et al. (2003, p. 53)	4.14	.567
		CUS02	Distinctive attributes of the booking system I am currently using keep me loyal towards the brand	Saaty (1994, p. 21).	3.86	.811
		CUS03	My loyalty towards the booking system increases when I am a satisfied customer	Anderson and Sullivan (1993, p. 125)	3.98	.513
		CUS04	I book again on the same booking system if I am satisfied about the brand	Chen and Lue (2004, p. 26)	4.17	.703
		CUS05	I attain pleasure from the booking system I am loyal towards	Leuthesser and Kohli (1995, p. 17)	3.78	.807
Switching cost (3.01)	The costs incurred by switching brands. High switching cost is a barrier that makes it difficult and costly for them to move business activities from one to another organization (Debitoor, 2019)	SCR01	I do not switch booking system because of the high-cost implications	Farrell and Klemperer (2007, p. 116)	2.78	1.049
		SCR02	I do not switch booking system because of the effort required to reach a level of comfort	Beggs and Klemperer (1992, p. 56)	3.10	1.189
		SCR03	I avoid switching online booking system due to the risks involved	Self-generated item	3.12	1.100
		SCR04	I switch to online booking system according to the prevailing economic conditions	Kim et al. (2003, p. 27)	3.04	.964
		SCR05	I prefer not to switch online booking systems as I stand to lose out on the benefits from loyalty programs	Klemperer (1995, p. 520)	3.03	1.170

Table 1 (cont.). Descriptive statistics and the origins of the questionnaire items

Antecedent	Definition	Code	Adapted measuring criteria for electronic booking platforms	Source	Mean	SD
Brand trust (4.03)	Brand trust reflects a consumer's expectation that a brand's products, services, or, more broadly, corporate behavior, reflects the promise the organization has made. This feeling of security with the brand is based on the perceptions that the brand is reliable and responsible for the interests and welfare of the consumer (Warc, 2019)	BTS01	I trust the online booking system I am loyal towards	Halim (2006, p 1)	4.03	.733
		BTS02	I have confidence in the online booking system that I am loyal to	Morgan and Hunt (1994, p. 23)	4.02	.739
		BTS03	The online booking system I make use of has consistently high quality	Reast (2005, p. 11)	4.01	.770
		BTS04	The reputation of the online booking system is a key factor in me maintaining brand loyalty	Raimondo (2000, p. 33)	4.05	.716
Relationship proneness (3.45)	Brand relationship proneness is the consequence of how a given customer perceives her relationship with a brand over time	RPR01	I prefer to maintain a long-term relationship with the online booking system	Dwyer (1987, p. 18)	3.63	.844
		RPR02	I maintain a relationship with an online booking system in keeping with my personality	Bloemer (1999, p. 106)	3.37	.906
		RPR03	I maintain a relationship with an online booking system that focuses and communicates with me	Davis (2002, p. 10)	3.83	.776
		RPR04	I have a passionate and emotional relationship with the online booking system I am loyal to	Reast (2005, p. 10)	2.95	1.120
Involvement (3.55)	An ongoing commitment on the part of the consumer with regard to thoughts, feelings and behavioral response	INV01	Loyalty towards an online booking system increases the more I am involved with it	Quester and Lim (2003, p. 29)	3.74	.790
		INV02	Involvement with an online booking system intensifies my arousal and interest towards that brand	Knox and Walker (2001, p. 121)	3.47	.897
		INV03	I consider other online booking systems when my involvement with my online booking system brand diminishes/ decreases	Self-generated item	3.81	.776
		INV04	My choice of an online booking system is influenced by the involvement others have with their brands	Quester and Lim (2003, p. 25)	3.17	1.031
Perceived value (3.45)	Customer's opinion of a brand's value to him or her. It may have little or nothing to do with the brand market price and depends on the brand's ability to satisfy his or her needs or requirements	PVL1	My online booking system loyalty is based on service quality and expected performance	Olson (2008, p. 246)	4.09	.779
		PVL02	I have an emotional attachment with the online booking system I am loyal towards	Petromilli, Morrison, and Million (2002, p. 22)	2.85	1.053
		PVL03	Price worthiness is a key influence in my loyalty towards an online booking system	Punniyamoorthy and Raj (2007, p. 233)	3.96	.798
		PVL04	The online booking system that I am loyal to enhances my social self-concept	Punniyamoorthy and Raj (2007, p. 233)	2.92	1.038

Table 1 (cont.). Descriptive statistics and the origins of the questionnaire items

Antecedent	Definition	Code	Adapted measuring criteria for electronic booking platforms	Source	Mean	SD
Commitment (3.19)	The degree to which a customer is committed to a given brand in that they are likely to re-purchase/re-use in the future. The level of commitment indicates the degree to which a brand's customer franchise is protected from competitors	COM01	I have pledged my loyalty to a particular online booking system	Kim et al. (2008, p. 111)	2.80	1.077
		COM02	I book at other online booking systems if my preferred brand is not available	Self-generated item	3.92	.680
		COM03	I identify with the online booking system and feel like part of the brand community	McAlexander et al. (2002, p. 18).	3.24	.977
		COM04	The more I become committed to an online booking system, the more loyal I become	Fullerton (2005, p. 100)	3.53	.897
		COM05	I remain committed to an online booking system even though price increases and popularity decreases	Foxall (2002, p. 18)	2.47	1.068
Repeat purchase (3.12)	An axiomatic term that simply refers to the extent to which consumers re-purchase the same brand in any equal-length period (All Business, 2019). Repeat purchase is often a measure of loyalty to a brand (Business dictionary, 2019)	RPS01	My loyalty towards an online booking system is purely habitual	Gordon (2003, p. 333)	3.09	1.007
		RPS02	I do not necessarily book at the same online booking system all the time	Self-generated item	3.56	.938
		RPS03	I always sample new online booking systems as soon as they are available	East and Hammond (1996, p. 165)	2.98	1.078
		RPS04	I establish a booking pattern and seldom deviate from it	Heskett (2002:356)	2.95	1.099
		RPS05	Loyalty programs are the reason I repeatedly book at a certain online booking system	Sharp et al. (2003, p. 20)	2.98	1.133
Brand affect (2.83)	Brand affect can be defined as a brand's potential to elicit a positive emotional response in the average consumer as a result of its use (Chaudhuri & Holbrook, 2001, p. 82)	BAF01	I attain a positive emotional response, booking at a certain online booking system	Chaudhuri and Holbrook (2001, p. 146)	3.17	.949
		BAF02	The online booking system that I am loyal towards makes a difference in my life	Moorman et al. (1992, p. 45)	2.81	1.031
		BAF03	I am distressed when I am unable to book at a particular online booking system	Matzler et al. (2006, p. 430)	2.51	1.084
Brand relevance (3.54)	The alignment of a brand's strategy and identity to provide a clearly stated benefit that addresses a need, want, or desire of a given consumer or consumer segment. Here differentiation is almost just as important as relevance (Lloyd, 2019)	BRV01	The online booking system that I am loyal towards stands for issues that actually matters	Minninni (2005, p. 24)	3.09	.952
		BRV02	The online booking system that I am loyal to has freshness about them and portray positive significance	Henkel, Tomczak, Heitmann, and Herrmann (2007, p. 311)	3.61	.792
		BRV03	I know that an online booking system is relevant through the brand messages communicated	Moore, Fernie, and Burt (2008, p. 922)	3.63	.779
		BRV04	The online booking system that I am loyal to are constantly updating and improving so as to stay relevant	Self-generated item	3.83	.751

Table 1 (cont.). Descriptive statistics and the origins of the questionnaire items

Antecedent	Definition	Code	Adapted measuring criteria for electronic booking platforms	Source	Mean	SD
Brand performance (3.77)	The subjective evaluation of the core product (i.e., attributes of the focal product), comprising both intrinsic (effectiveness) and extrinsic (packaging) characteristics (Awan, 2014, p. 30)	BPF01	I evaluate an online booking system based on perceived performance	Musa (2005, p. 47)	3.82	.840
		BPF02	I will switch online booking system should a better performing online booking system be available	Baldauf, Cravens, and Binder (2003, p. 222)	4.02	.832
		BPF03	I am loyal only towards the top-performing online booking system	Wong and Merrilees (2008, p. 377)	3.51	.923
Culture (2.34)	The characteristics and knowledge of a particular group of people, encompassing language, religion, cuisine, social habits, music, and arts (Zimmerman, 2017). This includes the values, attitudes, beliefs, artefacts, and other meaningful symbols represented in people's adopted pattern of life (Cole, 2019)	CUL01	My choice of online booking system is in keeping with the choice made by other members in my race group	Self-generated item	2.30	1.050
		CUL02	My loyalty towards an online booking system is based on the choice of online booking system used by my family	Kotler and Armstrong (2019)	2.48	1.115
		CUL03	Religion plays a role in my choice and loyalty of online booking system	Self-generated item	2.11	1.107
		CUL04	Family used online booking system indirectly assures brand security and trust	McDougall and Chantrey (2004, p. 9)	2.50	1.267

Note: $n = 131$.

an online booking platform less than once a year. Interestingly, 88.5% made their booking for their previous accommodation visit, and only 11.5% of the respondents used a third party to make the booking on their behalf. Some 83.8% of the respondents indicated that they had booked accommodation for leisure. The rest used the facilities for weddings and business conferences. The position of the preferred online booking platform is shared between a local (Lekkeslaap, 34.95%) and an in-

ternational (Booking.com, 33.98%) booking platform. These two platforms dominate the bookings made at the nature reserve (see Table 2).

The validity of the model to measure brand loyalty (actually to measure what it is supposed to measure) is crucial because the Moolla and Bisschoff model have been developed for fast-moving consumer goods. Although it was successfully applied in many application settings to measure brand loyalty

Table 2. Top online booking platforms

Booking platform	Frequency	Percentage
Lekkeslaap	72	34.95%
Bookings.com	70	33.98%
Safarinow	16	7.76%
Airbnb	19	9.22%
Trivago	14	6.79%
Holidayclub	15	7.28%
Other	<5	<1%

Table 3. Validity results of factor analysis on individual loyalty antecedents

Customer satisfaction	Factor loadings	Perceived value	Factor loadings	Brand affect	Factor loadings
CUS 1	.806	PVL 4	.835	BAF 3	.875
CUS 2	.804	PVL 1	.623	BAF 2	.847
CUS 3	.790	PVL 3	.621	BAF 1	.652
CUS 5	.691	PVL 2	.634		
Variance explained	50.45%	Variance explained	73.06%	Variance explained	63.63%
Switching costs	Factor loadings	Involvement	Factor loadings	Brand relevance	Factor loadings
SCR 3	.833	INV 1	.826	BRV 2	.889
SCR 2	.791	INV 2	.697	BRV 3	.850
SCR 1	.778	INV 3	.609	BRV 4	.822
SCR 5	.603	INV 4	.434	BRV 1	.620
SCR 4	.895				
Variance explained	69.76%	Variance explained	43.20%	Variance explained	64.36%
Brand trust	Factor loadings	Commitment	Factor loadings	Brand performance	Factor loadings
BTS 1	.908	COM 4	.853	BPF 2	.819
BTS 2	.906	COM 1	.836	BPF 1	.781
BTS 3	.889	COM 3	.818	BPF 3	.585
BTS 4	.786	COM 5	.711		
		COM 2	.974		
Variance explained	76.38%	Variance explained	73.22%	Variance explained	54.12%
Relationship proneness	Factor loadings	Repeat purchases	Factor loadings	Brand affect	Factor loadings
RPR 2	.850	RPS 4	.811	CUL 4	.900
RPR 1	.798	RPS 1	.763	CUL 2	.891
RPR 4	.783	RPS 5	.756	CUL 3	.813
RPR 3	.666	RPS 2	.877	CUL 1	.811
		RPS 3	.752		
Variance explained	60.37%	Variance explained	68.39%	Variance explained	73.06%

and has proved its worth as brand loyalty measurement instrument in the pharmaceutical industry, agriculture, services industry, pet food industry, and others, it has not done so in online booking platforms. The validity was statistically confirmed by subjecting each brand loyalty antecedent to a factor analysis to confirm if the measuring criteria, indeed, measures the specific loyalty antecedent (Moolla & Bisschoff, 2012; Salim, 2011; Wiese, 2014; Hill, 2018). The results of the statistical validation of the model for the online booking platforms appear in Table 3. Table 3 also shows the measuring criteria about each antecedent in declining order according to their factor loadings.

From the table, it is evident that their respective measuring criteria indeed measured all the loyalty antecedents because all the criteria respectively load under their initial antecedents. One criterion (B1.4, about customer service) was discarded from the analysis because its factor loading was below the required 0.40 minimum factor loading set for this study. Three antecedents consist of sub-factors. These loyalty antecedents are Switching

cost, Repeat purchases, and Commitment. Their sub-factors have been labeled and indicated in brackets in Table 4.

Table 4. The KMO, Bartlett's test, variance explained, and reliability of the brand loyalty antecedents

Antecedents	KMO	Bartlett	Variance	Alpha
Customer satisfaction	0.76	0.00	50.45	.692
Switching cost (prevailing economic conditions)	0.67	0.00	69.76	.716
Brand trust	0.83	0.00	76.38	.896
Relationship proneness	0.72	0.00	60.37	.773
Perceived value	0.57	0.00	73.06	.614
Involvement	0.50	0.00	43.19	.525
Commitment (flexibility)	0.71	0.00	73.22	.734
Repeat purchases (experiment with competitors)	0.59	0.00	68.39	.555
Brand affect	0.60	0.00	63.63	.712
Brand relevance	0.76	0.00	64.36	.797
Brand performance	0.57	0.00	54.12	.561
Culture	0.78	0.00	73.06	.876

The value of the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is satisfactory with eight antecedents exceeding the desired KMO value of .6; other four antecedents scored acceptable KMO values of .5 and higher (Field, 2009). Bartlett's test of sphericity is significant ($p \leq .05$); this indicates that there are no strong relationships between the data-points (Miljko, 2017).

4.2. Reliability of results

Cronbach's alpha coefficients are calculated to determine if the data are reliable and internally consistent. The closer the Cronbach's alpha coefficient is to 1.00, the higher the reliability and the internal consistency, and a coefficient of .70 or higher is desirable (Pallant, 2010, p. 6). This dataset has an acceptable alpha coefficient of .704 (George & Mallery, 2003; Field, 2009, p. 669). The majority of the brand loyalty antecedents had alpha coefficients above .7. However, Goforth (2015) recommends that an alpha coefficient below .50 is usually unacceptable. Applying this criterion, all the antecedents are deemed reliable (Goforth, 2015).

4.3. Exploratory factor analysis

Exploratory factor analysis requires data that is suitable for the study. The suitability of the data was tested by the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, and the sphericity was determined using Bartlett's test. To extract meaningful data successfully, data should have the following properties: adequate sample ($KMO \geq 0.700$), low sphericity ($p \leq 0.05$), and explain sufficient variance ($\sigma \geq 60\%$) (IBM, 2019). These results appear in Table 5.

Table 5. KMO and Bartlett's test

Kaiser-Meyer-Olkin measure of sampling adequacy		.741
Bartlett's test of sphericity	Approx. Chi-square	3767.726
	Df	1225
	Sig.	.000

The sample adequacy is satisfactory (0.741), Bartlett's test indicates that $p \leq .05$ and score is 0.000 and is lower than 0.05. This means that the data are suitable for exploratory factor analysis to determine how many embedded factors exist and if there is sufficient variance explained by the data.

4.4. Retention of factors

Almost 73% of the variance is explained among 13 potential factors. However, although all the factors have eigenvalues (a measure of explained variance) greater than one (as per the Kaiser criterion), a secondary measure called the Point of Inflection can be used complementary to determine how many factors should be retained from the rotated factor matrix. It graphically explains factor variances and is used to measure the discrepancy between the factors. The point of inflection is shown in Figure 2.

From the figure, it is clear that two points of inflection exist: Factors 3 and 9. However, the cumulative variance explained after these factors (28.7% and 59.7%, respectively) suggest that these points of inflection should be further explored. The additional variance explained (13.2%) by Factors 10-13 (after the 2nd point of inflection) resulted in the inclusion of these factors; thus, over-ruling the evidence of the point of inflection.

Figure 2. Point of inflection

Table 6. Factors, variance explained and reliability coefficients

Factor name	Variance explained (%)	Cronbach's alpha
Factor 1. Brand quality	13.14	0.896
Factor 2. Brand relationship	8.73	0.868
Factor 3. Culture	6.89	0.876
Factor 4. Improvement	6.70	0.775
Factor 5. Commitment	5.63	0.721
Factor 6. Switching cost and risk	5.41	0.721
Factor 7. Loyalty	5.13	0.735
Factor 8. Flexible	5.56	0.617
Factor 9. Involvement	3.68	0.554
Factor 10. Value	3.62	***
Factor 11. Curiousness	3.40	0.628
Factor 12. Dissatisfied	3.10	***
Factor 13. Economic condition	3.00	***

Note: *** Reliability not calculated due to minimum criteria.

5. DISCUSSION

In this study, a new model was developed to measure brand loyalty in specifically the online booking platform industry. The bookings made by respondents at the nature reserve were used as a case-study approach. The model was developed in three stages.

In the first stage, brand loyalty antecedents were obtained through the research study done by Moolla and Bisschoff. These antecedents were tested in a wide array of other industries and found to be applicable. This study adapted the original questionnaire based on theoretical evidence to suit measuring brand loyalty of online booking platforms. The empirical analysis of each brand loyalty antecedent and its respective measuring criteria were validated using factor analysis; this ensured that the new questionnaire is suitable to measure online booking brand loyalty. The statistical process validated all twelve antecedents. This is a first contribution to the research, a validated questionnaire that academia and managers can use to measure their brand loyalty (or even selected antecedents) of the online platforms they use to secure bookings for their resorts.

In the second stage, these brand loyalty criteria were structured into twelve brand loyalty antecedents, namely Customer satisfaction, Switching cost, Brand trust, Repeated purchases, Perceived value, Involvement, Commitment, Brand affect, Brand

relevance, Brand performance, and Culture. The actual measurement of the antecedents indicated an order of importance where managers can gain the most return on their efforts by targeting the more important brand loyalty antecedents. The study showed that Brand trust (80.6%), Customer satisfaction (79.2%), and Brand performance (75.4%) are the most important antecedents that should be tended to first in any managerial intervention. Culture (46.8%) and Brand affect (56.6%) are the least important antecedents. Noteworthy is the high reliability of Brand trust ($\alpha=0.86$); this means that Brand trust is considered as the most constant antecedent in brand loyalty.

In the third and final stage, the model has subjected the measuring criteria to exploratory factor analysis to identify 13 underlying or latent variables of brand loyalty, namely Involvement, Value, Curiousness, Dissatisfied, Economic condition, Brand quality, Brand relationship, Culture, Improvement, Commitment, Switching cost/risk, Loyalty, and Flexibility. Regarding the latent variables, Brand quality (13.1%) is the most important factor, followed by Brand relationship (8.7%). Both these variables have high reliability coefficients ($\alpha=0.86$ and $\alpha=0.89$, respectively), indicating that these variables can be regarded as highly constant in brand loyalty management. Economic conditions (3.0%) is the least important factor. Similarly, the most important latent variable will provide higher returns on managerial interventions than the lower order latent variables.

The integrated model appears in Figure 3.

From the above model, it is evident that all twelve original antecedents are all important in measuring the brand loyalty of online booking platforms. The model also shows the relative importance of each of the antecedents in percentage format, and it is evident that Brand trust (80.6%) and Customer satisfaction (79.2%) are two most important antecedents in booking platform loyalty. Culture is the least important antecedent in online booking platforms (46.8%). Regarding the factors, the model shows that Brand quality and Brand relationship are the most important latent variables (explaining variance of 13.1% and 8.7%, respectively). Economic conditions represent the least important latent variable (3.0%).

Figure 3. Integrated model to measure brand loyalty in the online booking platform industry

This model presents a practical tool that can be used by researchers, marketers, and managers to measure brand loyalty in the online booking platform industry. Measuring represents the first step towards managing brand loyalty, and with the in-

crease in the number of booking platforms, and their differentiating competitive thrusts, active management of brand loyalty can ensure sustainable business from loyal online customers.

CONCLUSION

The primary aim was to measure the brand loyalty of customers towards online booking platforms in a nature reserve. This was done by adapting an existing brand loyalty model and apply it to online booking platforms. This statistically validated model measured twelve brand loyalty antecedents and identified 13 underlying (or latent variables) of brand loyalty in online booking platforms. The reliability coefficients of the data and each of the antecedents and latent variables were determined, and the sample adequacy ensured. The study culminates in a final integrated model that can be used to measure and manage brand loyalty of online booking platforms. This model integrates the relative importance of the antecedents and the latent variables in a managerial model that can be used by booking platforms targeting nature reserves in South Africa, and by managers to guide them towards listing their nature reserves on the most suitable booking platforms.

AUTHOR CONTRIBUTIONS

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