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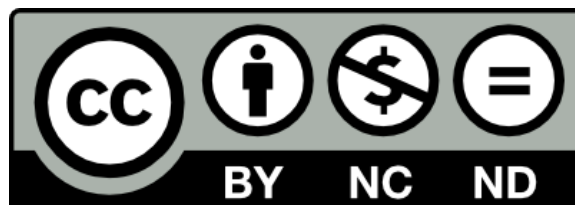
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Re-thinking visitor loyalty at ‘once in a lifetime’ nature-based tourism destinations: Empirical evidence from Purnululu National Park, Australia

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Abstract

Visitor loyalty with respect to national parks has been under-researched, especially for iconic or ‘once in a lifetime’ tourism destinations. This study reports on results from a survey of 529 visitors to the remote and iconic Purnululu National Park, Australia. An investigation of the relationships between loyalty, satisfaction and service quality indicates loyalty has multiple dimensions, including word of mouth recommendations and intention to revisit, with each having a different relationship with satisfaction and service quality. These findings, plus the weak correlation between revisiting and positive word of mouth intentions, suggests a need to reconceptualise loyalty in relation to ‘once in a lifetime’ destinations. For these tourism destinations, there may be other ways for visitors to demonstrate loyalty and the associated means for measuring it, rather than intention to revisit. Loyalty may be a transferred concept, with loyalty to one iconic destination resulting in visitation to other, similar destinations.

Management implications

Traditional measures of visitor loyalty may not be applicable to iconic or 'once in a lifetime' tourism destinations. Managers of these types of tourism destinations may be best served measuring word of mouth recommendations or intentions of visitors to engage in positive communications about the destination as a means of determining visitor loyalty. Although potentially difficult to influence, a focus on visitor satisfaction rather than service quality would be beneficial.

Keywords: Iconic; Loyalty; National park; Satisfaction; Service quality; Visitor research

1. Introduction

Nature-based tourism, based on viewing nature and natural landscapes, is increasing worldwide with national parks and other protected areas the focus for much of this tourism activity (Newsome, Moore, & Dowling, 2013). Visitor loyalty would be of benefit to these areas due to the positive social, financial and political support it garners (Rodger, Taplin, & Moore, 2015). Loyal visitors are those who demonstrate commitment to a place by revisiting, influencing others to visit, or by spreading positive word of mouth communications about it (Baker & Crompton, 2000). A loyal visitor network also allows managers to establish and defend a strong market position with increasing competition for limited resources as well as potentially providing funds to the destination itself through willingness to pay user fees or make donations (Eagles, 2001; Moore, Rodger, & Taplin, 2015). Understanding loyalty itself and what contributes to visitor loyalty are important areas of research focus, especially as funding opportunities for protected areas become scarcer and expectations for their financial autonomy increase (Moore et al., 2015).

The last decade has seen a shift in tourism research from examining visitor satisfaction as a measure of experience quality to also measuring visitor loyalty (Moore et al., 2015; Rodger et al., 2015). In the simplest tourism sense, loyalty can be defined as a commitment to a particular destination, place or brand (Baker & Crompton, 2000; Rodger et al., 2015; Zabkar, Brencic, & Dmitrovic, 2010). It has previously been measured through behavioural intentions such as intention to revisit, recommending

to others and faithfulness to similar attractions (Rodger et al., 2015). However, recent research by Rivera and Croes (2010) has indicated that intention to revisit may not be the best form of measurement for loyalty at iconic or 'once in a lifetime' tourism destinations. In their study of the Galapagos they found that loyalty was only expressed as a willingness to recommend, not revisiting. Further work is needed in examining, determining and measuring loyalty and the influences on it across the range of nature-based tourism destinations.

'Once in a lifetime destinations' are those where the effort and/or expense of visiting is such that they are generally only visited once, meaning that visitors are dominated by first-timers. Rivera and Croes (2010) suggest that such visitors are seeking a 'spectacle' and to 'self-indulge' in the conclusions to their study of visitors to the Galapagos Islands, which were identified as an iconic, once in a lifetime destination. Iconic destinations can be such for a number of reasons, but it seems the common thread is being acknowledged nationally and internationally as a place that warrants visiting. The Galapagos is an iconic destination because it is considered one of the top ecotourism destinations in the world (Rivera & Croes, 2010). Geosites in Australia and Taiwan have been identified by Newsome, Dowling, and Leung (2012) as iconic because of their popularity and international reputation. Iconic status can also apply to developed/urban destinations such as Byron Bay in eastern Australia, based on its long history as a beach and party destination for international backpackers (Hanlan & Kelly, 2005).

Previous studies have shown that satisfaction and service quality have an influence on the loyalty of visitors with both the focus as important antecedents of visitor loyalty (Chi & Qu, 2008; Li & Petrick, 2008; Weaver & Lawton, 2011). However the use, definition and measurement of these terms has been problematic. There has been a lack of consistency in the variables selected for analysis as determinants of loyalty, the place of satisfaction in these analyses, and operationalization of loyalty itself. For example, service quality as a determinant of loyalty (Crilley, Weber, & Taplin, 2012; Lee, Graefe, & Burns, 2004, 2007), has been described and measured as quality of performance (Tian-Cole, Crompton & Willson, 2002), quality of staff, service delivery and physical condition of the

destination (O'Neill, Riscinto-Kozub and Van Hyfte, 2010), perception (Rivera & Croes, 2010) and attribute satisfaction (Chi, 2012).

Satisfaction has experienced a similarly diverse conceptualisation (Graefe & Burns, 2013; Manning, 2011) and diversity of placements as an influence on loyalty. Although overall satisfaction is generally included as an influence (Lee et al., 2004; O'Neill et al., 2010; Tian-Cole et al., 2002), how it is measured varies widely (Moore et al., 2015). Measurement approaches range from using a semantic differential scale (e.g. Tian-Cole et al., 2002) to simply asking visitors how satisfied they are (e.g. Moore et al., 2009). Also highly variable is the reported contribution of overall satisfaction to loyalty or behavioural intentions. Overall satisfaction has been identified as directly influencing loyalty and behavioural intentions (del Bosque & San Martin, 2008; Rivera & Croes, 2010; Wang, Zhang, Gu, & Zhen, 2009) as well as mediating the effect of service quality on loyalty/behavioural intentions (Lee et al., 2004, 2007; Tian-Cole et al., 2002).

As such, this paper aims to make two contributions to better understanding visitor experiences and loyalty intentions to iconic and other nature-based tourism destinations more generally. The first contribution is to add clarity to understanding the complex relationships between loyalty, service quality and satisfaction, through modelling these constructs and their inter-linkages, accompanied by empirical testing. The second contribution is to investigate loyalty as a multidimensional construct. Acknowledgement of this multidimensionality is a response to concerns raised by researchers such as Rivera and Croes (2010) in their study of visitor loyalty to the Galapagos Islands as an iconic tourism destination where it was identified that visitors responded very differently to their two loyalty items. Visitors had a high intention to recommend and a low intention to return. This result suggests loyalty is a multidimensional construct, a matter investigated further in this paper.

2. Theoretical background and conceptual model

2.1. Review of constructs

Key constructs in this paper include visitor loyalty, service quality and satisfaction. *Visitor loyalty* is commitment to a destination (Rivera & Croes, 2010). Behaviors associated with visitor loyalty include repeat visitation and positive word of mouth communications (Akama & Kieti, 2003; Baker & Crompton, 2000; Vargo, Nagao, He, & Morgan, 2007; Weaver & Lawton, 2011). Repeat visitation offers potential for a more stable revenue base and lower advertising expenditure compared to attracting first time visitors (Swanson & Hsu, 2009; Zabkar et al., 2010). Positive word of mouth communications (recommending a destination or saying positive things about it) can have a greater impact on decisions to visit than formal marketing communications as they often come from a trusted source, such as a friend or relative (Swanson & Hsu, 2009). Hence, they are seen as the most effective and economic form of advertising (Akama & Kieti, 2003).

Loyalty intentions are measured as predictors of future behaviour (Ajzen & Fishbein, 1980; Ajzen, 1991) as measuring visitors' actual post-visit behaviour is often not possible because it is removed in time and place from the study site. The Theory of Reasoned Action (Ajzen & Fishbein, 1980) and the Theory of Planned Behaviour (Ajzen, 1991) postulate that the intention to perform a behaviour is a direct determinant of actual behaviour. A high level of intention to perform a behaviour (e.g. return to a destination) reflects a high level of motivation to perform it and is thus more likely to lead to that behaviour. Behavioural intentions are better indicators of future behaviour if they are specific in action, time and place (Baker & Crompton, 2000).

In nature-based tourism research there has been a growing interest in loyalty behaviors (Lee et al., 2004; Moore et al., 2015; O'Neill et al., 2010; Rivera & Croes, 2010; Tian-Cole et al., 2002). Loyalty has been widely operationalized as a single construct measured using multiple items, such as intention to revisit, positive word of mouth and willingness to pay (Chi, 2012; O'Neill et al., 2010; Rivera & Croes, 2010; Tian-Cole et al., 2002). Weaver and Lawton (2011) have recently taken a more complex approach by studying loyalty as a three dimensional construct including referral (i.e., recommending

the destination to others) and repeat visitors, volunteering, and advocacy and financial support. They suggest that the first of these requires less commitment from visitors than the second and third sets of intended behaviors, i.e. financial support requires more commitment than saying positive things.

Efforts have also been made to consider loyalty as a complex, sequenced construct including attitudinal, conative (intentions-related) and behavioural loyalty (Lee et al., 2007).

The term loyalty, rather than behavioural intentions, is used in this paper for several reasons. First, it encapsulates the items in Baker and Crompton (2000) loyalty subscale, items that have been consistently used in other studies, although other items have also been added. Second, loyalty as a term resonates with the interests of managers, especially in better understanding how to improve the political and financial support for protected areas. It is also a practical and easily understood term. Loyalty, with its narrower sub-set of intentions including intention to revisit and positive word of mouth, provides a focused concept for this research.

Perceived *service quality* is an attitude held by visitors toward a destination based on the service providers' outputs (Baker & Crompton, 2000; Tian-Cole et al., 2002; Zabkar et al., 2010). These outputs include process outputs, such as the way staff interact with visitors, as well as tangible outputs, from using infrastructure and facilities (Parasuraman, Zeithaml, & Berry, 1985; Zabkar et al., 2010). Because service outputs, and hence service quality perceptions, can be largely manipulated by the service provider, some consider them to be one of the most important areas for managers to focus on (Baker & Crompton, 2000; Crompton & Love, 1995).

Evaluations of individual service outputs (condition of walk trails, quality of roads) are regarded as mainly cognitive in nature (Nowacki, 2009; Tian-Cole & Crompton, 2003; Tomas, Scott, & Crompton, 2002). These cognitive judgements are compensatory, since an output that is perceived negatively can be offset by one that is perceived more positively; and cumulative as added together they contribute to overall perceived service quality (Tian-Cole et al., 2002). Visitors' overall perception of service quality has both cognitive and emotive components (Tian-Cole & Crompton, 2003; Tian-Cole et al., 2002). That is, *overall service quality* evaluations take into account both

evaluative judgements such as comparing perceived costs and benefits of a service, and also emotional judgements such as weighing up positive and negative feelings about the destination.

Satisfaction refers to the evaluation of experiences, rather than service outputs, and is a psychological outcome felt by the visitor (Crompton & Love, 1995; del Bosque & San Martin, 2008; Tonge & Moore, 2007; Zabkar et al., 2010). The terms satisfaction and service quality have often been used interchangeably in tourism literature; however they are best viewed as related, yet separate, concepts (Graefe & Burns, 2013; Tian-Cole & Crompton, 2003). Satisfaction can be defined as the level of conformity between an individual's desired and actual experience. As such, an individual is likely to have a satisfying experience when their expectations are met (Graefe & Burns, 2013).

Overall satisfaction is an attitude judged by elements both intrinsic and extraneous to the tourist product. For example, visitors' satisfaction may be influenced by the benefits they gain, elements of the service, social group dynamics, mood, cultural characteristics, values, and even the weather (Baker & Crompton, 2000; Chhetri, Arrowsmith, & Jackson, 2004; Connell & Meyer, 2004; Fletcher & Fletcher, 2003; Tian-Cole et al., 2002). As with overall service quality, the formation of overall satisfaction judgements involves both affective and cognitive processes (Connell & Meyer, 2004; Tian-Cole & Crompton, 2003).

2.2. Conceptual model

A series of hypotheses are presented in a conceptual model (Fig. 1) that will be used to investigate the relationship between service quality, satisfaction and loyalty. Loyalty, overall service quality and overall satisfaction are modelled as latent constructs. That is, they are constructs that cannot be directly observed but are measured using a number of items (Wang et al., 2009).

It is assumed by many that overall service quality has a positive effect on loyalty but very few researchers have measured this relationship. Those who have, found that overall service quality positively influences intentions to engage in future loyalty behaviour (Crompton & Love, 1995; Tian-Cole et al., 2002). Satisfaction also positively influences loyalty, although its magnitude of influence

depends on the situation (Baker & Crompton, 2000; Lee et al., 2007; Nowacki, 2009; Wang et al., 2009; Zabkar et al., 2010). Hypotheses one and two are thus:

H₁

Overall service quality positively influences loyalty behavioural intentions.

H₂

Overall satisfaction positively influences loyalty behavioural intentions.

A number of authors have indicated that service quality is an antecedent to satisfaction (de Rojas & Camarero, 2008; Jensen, 2007; Wang et al., 2009). It has also been conceptualised as a consequence of satisfaction (Tian-Cole et al., 2002). Indeed, as O'Neill et al. (2010) and Gonzalez, Comesana, and Brea (2007) note there is often a strong relationship between the two. Causal inferences about the direction of the relationship between the two, although often made, cannot be justified empirically using correlation-based data analysis (Anderson & Gerbing, 1988; Tomas et al., 2002). For the purpose of hypothesis testing, however, this study takes the view that the more positive a protected area visitor is toward overall service quality, the more satisfied they will be. As such, Hypothesis 3 is:

H₃

Overall service quality positively influences overall satisfaction.

3. Study area

Purnululu National Park is an iconic national park in north-western Australia listed as a World Heritage site in 2003 as an outstanding landscape with incomparable natural phenomenon (DoE AG, 2016). Its iconic status is based on its World Heritage listing, where the Bungle Bungle Range and its unique black and orange banded 'beehive domes', is the most famous feature of the Park and is one of the region's major tourist attractions (CALM, 1995). UNESCO (2016) note 'the Bungle Bungles are, by far, the most outstanding example of cone karst sandstones anywhere in the world'. Dark bands of

cyanobacteria wind around the domes, with these bacteria being one of the oldest life forms on earth. They have been found in rocks up to 3500 million years old (DoE AG, 2016). It is IUCN category II – national park and was declared in 1987.

The Park, with an area of 239,723 ha, is located in the remote, sparsely populated East Kimberley Region of Western Australia over 3000 km from Perth, the capital of Western Australia (Fig. 2). It is approximately 300 km south of the larger town of Kununurra and the 160 km north west of the smaller town of Halls Creek. Visitors access the Park via a challenging, rough four-wheel-drive only track with numerous creek crossings, or by light plane or helicopter. Because of its remoteness and access difficulties visitor numbers are low at 28,000 per year. These factors combine to make Purnululu National Park a ‘once in a lifetime’ tourism destination.

Although Purnululu National Park is remote and difficult to access, it still provides a comprehensive set of facilities and services for visitors. These include: a staffed visitor centre; commercially run eco-resorts with permanent ‘safari’ style tents, with bathroom facilities and meals provided; and park-run public campgrounds with toilets, picnic tables, shaded picnic areas, fire rings and fire wood, and untreated bore water. No showers, food outlets or rubbish disposal are available. There are also day use sites, and an extensive network of walk trails of various lengths and difficulties. Inside the Park, visitors can drive to areas of interest and explore on foot using these designated walk trails. They can also take a helicopter or light plane flight over the Range.

This study focused on an iconic nature-based tourism destination because of the lack of attention paid to visitor loyalty and its importance in engendering political support for parks and other nature-based tourism destinations (Lee et al., 2007). The remoteness of Purnululu National Park and the difficulties in accessing it raises interesting questions about repeat visits and whether intention to revisit measures a different construct to other dimensions of loyalty as previously measured. Additionally, the Park was also selected as a focus because of the strong support by its managers and the paucity of visitor research at this World Heritage Site.

4. Methods

4.1. Survey design and rationale

Self-complete surveys were personally administered to visitors at Purnululu National Park in 2010 and handed back to the researchers as soon as they were completed. The survey was conducted in July as this corresponded with peak visitor numbers and included Australian school holiday and non-school holiday periods. The method maximised the likelihood of achieving a large sample size and allowed for a broad demographic mix of visit and visitor types to be included. Surveying took place in the public and private campgrounds. To avoid artificial inflation of sample size, one person per personal group (friends, family, couple or single) was asked to fill out a survey. This was the person with the next birthday, which ensured random sampling (Moore et al., 2009).

4.2. Survey instrument

Loyalty, perceived service quality and satisfaction were each measured using seven-point Likert scales with multiple items for each of the three constructs. Multiple item scales allow researchers to gather impressions of a variety of components for each construct (Moore & Shuptrine, 1984; Nowacki, 2009). Seven-point scales are more reliable than five-point scales as they are sensitive enough to capture the variety of respondent perceptions without forcing respondents to answer in a category that does not reflect their view (Alwin & Krosnick, 1991; Finstad, 2010). Only the anchor points (one and seven) were labelled with text. Some visitor and visit characteristics were also included in the questionnaire such as gender, whether they were with a tour group or an 'independent' traveller, and place of residence.

Four items measured loyalty (Table 1). The instruction was, 'Based on this trip to Purnululu National Park, please circle the number that indicates how likely you are to take each of the following actions within the next twelve (12) months'. This wording was used to ensure that the items were specific in action, time and place (Baker & Crompton, 2000). The time frame given for the item regarding revisit intentions was extended to the next ten years because the likelihood of revisiting a destination such as Purnululu within one year was thought to be low. Loyalty items were adapted from Tian-Cole et

al.'s (2002) study of wildlife refuge visitors, Lee et al.'s (2007) study of visitors to a national forest, and studies by Nowacki (2009) and Wang et al. (2009) who also measured visitor loyalty, but not in protected areas.

Overall service quality was operationalised using three items (Table 1).² The instruction was, 'Please circle the number that best reflects your overall views about what is offered at this National Park by its managers and / or tour operators'. Tour operators were included in the question as they offer many of the services and facilities that some visitors experience in the Park. The items included both evaluative and emotional judgements to capture the cognitive and affective components of this construct (Tian-Cole & Crompton, 2003; Tian-Cole et al., 2002).

Overall satisfaction was operationalised using four items (Table 1). Items were adapted from Oliver (1997) universal scale and have been used in other studies (e.g. del Bosque & San Martin, 2008; Zabkar et al., 2010). They included an overall satisfaction item as well as affective (really enjoyed), cognitive (wise choice) and fulfilment (what I needed) components of satisfaction. Directions were 'Please circle the number that best reflects your overall views about your visit to Purnululu National Park'.

4.3. Data analysis

Relationships between the three constructs – overall service quality, overall satisfaction and loyalty – were analysed using structural equation modelling (SEM). SEM allows multiple relationships to be assessed simultaneously (Bollen, 1989). Before undertaking SEM, the validity of each construct was determined using principal components analysis with varimax rotation and minimum Eigenvalue of 1. The minimum accepted factor loading for indicator variables was set at .7 and the maximum amount of cross-loading accepted was .35. Construct reliability was tested using Cronbach's Alpha, with an alpha above .7 considered acceptably reliable (Bohrnstedt & Knoke, 1988).

A measurement model was created to reflect the constructs validated using the exploratory process outlined above. Using the maximum likelihood method of estimation with SPSS Amos 17.0, absolute and incremental fit indices determined the model's goodness of fit (Hu & Bentler, 1999). For absolute

fit the normed Chi-square statistic (Chi-square divided by the degrees of freedom), RMSEA (root mean square error approximation) and SRMR (standardised root mean square residual) were examined in terms of their recommended cut-off values. Acceptable fit is indicated by normed Chi-square <3 (Lee et al., 2007) plus a combination of RMSEA ≤ 0.06 and SRMR ≤ 0.08 . The CFI (comparative fit index) measured incremental goodness of fit. A combination of CFI ≥ 0.95 and SRMR ≤ 0.09 should be met to confirm incremental fit (Hu & Bentler, 1999).

5. Results

5.1. Visitor and visit characteristics

Visitors completed 529 surveys over 33 days at Purnululu National Park with a response rate of 96%. Most respondents were Australian (89%) and visiting the National Park for the first time (90%). Three quarters of the visitors surveyed were over 45 years old (77%), with the largest age group being 55–64 (36%). One third of visitors surveyed were travelling as part of a commercial tour group (32%).

5.2. Service quality, satisfaction and loyalty intentions – construct validity and reliability

Principal components analysis confirmed that the indicator items/variables for overall service quality and overall satisfaction were accurate and valid measures of the two constructs. Factor loadings were all above the cut-off of .7 and the variance explained by the variables in both cases was high (Table 2). The Cronbach's alpha scores for overall service quality and overall satisfaction were .89 and .87 respectively, thus, confirming construct reliability.

Construct validity was not confirmed for loyalty based on the factor loadings of its four indicator variables. Two variables, 'say negative things' and 'revisit' had factor loadings below the .7 cut-off indicating that they were not measuring the same construct as the variables 'say positive things' and 'recommend', which both loaded strongly (Table 2). Reliability of the loyalty construct was poor (Cronbach alpha =0.51).

Thus, 'say positive things' and 'recommend' were retained as indicators of a single latent construct. The construct was renamed 'positive word of mouth (WOM) intentions' to reflect the qualities of the two remaining variables. The two variables accounted for 84.2% of the variance and had a high Cronbach alpha of .80, which meant that positive WOM intentions could be modelled as a valid and reliable construct. 'Revisit' intentions was modelled as a manifest variable rather than as an indicator of a latent construct. 'Say negative things' was discarded from analysis as its correlation with other WOM questions was weaker and its distribution was heavily skewed (82% of respondents provided the most extreme answer indicating they would not say negative things, and an extra 9% provided the next response).

Discriminant validity was confirmed using principal components analysis, specifying four factors (Table 3). Satisfaction variables all loaded on factor one, service quality variables on factor two and positive WOM variables (previously loyalty variables) loaded on factor three. Revisit, which was also previously a loyalty variable, loaded on factor four. Cross-loadings were all substantially lower than other loadings and below the cut-off of .35. The three latent constructs, and one manifest variable, were subsequently analysed using SEM.

5.3. Structural equation modelling (SEM)

For SEM, all rows of data containing one or more missing values were deleted leaving a sample size of 515. Initial assessment of the model revealed that it had reasonable, although not good, fit to the data (Table 4). The Chi-square (χ^2) statistic was significant and the normed Chi-square was above 3.0, indicating poor fit. The RMSEA value of .07 confirmed that the model was poorly fitted to the data. Incremental fit was confirmed, however, as SRMR was below .08 and CFI was above .95.

To improve absolute fit, data were examined to identify individuals who differed significantly and to a large degree from other individuals in the sample (outliers). Four visitors had significantly high Mahalanobis d-squared statistics of over 50. These outliers were removed from the data set, leaving a sample size of 511, and goodness of fit was recalculated. The model's absolute and incremental fit improved, with all fit indexes conforming to goodness of fit cut-offs (Table 4). The Chi-square

statistic remained significant but this is often the case when using structural equation modelling with large sample sizes (Bollen, 1989).

The standardised coefficients presented in the structural model (Fig. 3) reflect the strength of relationships between the constructs (circled) and between constructs and their indicator variables (boxed). Service quality had a positive but weak direct influence on WOM intentions ($r = 0.26$, p (2-tailed) $< .001$). Satisfaction had a much greater positive effect on positive WOM intentions than did service quality ($r = 0.57$, p (2-tailed) $< .001$). Revisit intentions was not influenced directly by service quality ($r = -0.01$, p (2-tailed) $= .902$). The influence of satisfaction on revisit intentions was positive but weak ($r = 0.29$, p (2-tailed) $< .001$). There was a moderate positive relationship between overall service quality and overall satisfaction ($r = 0.54$, p (2-tailed) $< .001$). Thus, all three hypotheses were supported when loyalty is measured as positive word of mouth intentions.

6. Discussion

A single loyalty construct incorporating revisit and word of mouth intentions was not supported by the results produced in this study. Rather, positive word of mouth and revisiting are differentially affected by satisfaction and service quality. Both overall satisfaction and service quality positively influenced visitors' word of mouth intentions with the effect of satisfaction more than twice that of service quality. Satisfaction had a weak influence on revisit intentions but this was much stronger than the effect of service quality – which had no direct effect.

6.1. Service quality and visitor satisfaction

Analysis confirmed that overall service quality and satisfaction were separate constructs (Borrie & Birzell, 2001; Tian-Cole & Crompton, 2003; Tian-Cole et al., 2002; Zabkar et al., 2010). Measuring visitor satisfaction using perceptions of service quality, as is often done, is therefore unreliable and should be avoided. This is important because overall service quality and satisfaction have different effects on visitors' loyalty. Accurate and separate measurements of service quality and satisfaction can help to ensure that their antecedents and consequences are properly attributed and that attempts to

manipulate and improve visitors' experiences are made with full cognizance of the likely outcomes that such manipulations will have.

In the current study overall satisfaction had a higher mean score than overall service quality (Table 2). Borrie and Birzell (2001, 31) note that high levels of visitor satisfaction with outdoor recreation experiences are to be expected 'given the voluntary nature, the high emotional and financial commitment, and the social desirability typically associated with them'. To minimise cognitive dissonance visitors will rarely report having low satisfaction due to the personal investment made to ensure a satisfying experience (Chhetri et al., 2004). Cognitive dissonance may play a lesser role in influencing service quality perceptions as there is less personal investment in the successful delivery of services and facilities than there is in creating a personally satisfying experience (Bawa & Kansal, 2008).

Despite differing perceptions of overall service quality and overall satisfaction the two constructs were highly influential on one another. Although the relationship was modelled as service quality → satisfaction, causality cannot be assumed (Anderson & Gerbing, 1988). Most researchers have conceptualised service quality as an antecedent to satisfaction (e.g. Baker & Crompton, 2000; de Rojas & Camarero, 2008; Jensen, 2007; Wang et al., 2009) although the relationship is likely to be bi-directional (O'Neill et al., 2010). By bi-directional we mean that service quality influences satisfaction and vice versa.

6.2. Re-thinking the loyalty construct

The original loyalty construct used in this study had low internal consistency and validity. Compared to many other tourism studies it is unusual that WOM intentions and revisit intentions did not form a reliable latent construct (e.g. del Bosque & San Martin, 2008; Lee et al., 2007; Tian-Cole et al., 2002; Wang et al., 2009). However, Fuller and Matzler (2008) and Nowacki (2009) also reported low construct reliability for loyalty intentions measured by WOM and revisit intentions. Instead of modifying the construct, however, these studies retained both types of variable as indicators of a single construct. Similarly, other studies have found weak correlations within the loyalty construct yet

have retained the variables as indicators (e.g. Lee et al., 2004). How tourism studies should interpret low internal consistency when developing latent constructs has not been addressed in this literature so far. The current study took the view that because WOM and revisit were not highly correlated and construct reliability was poor, loyalty could not be modelled as a single latent factor. Revisit intentions and WOM intentions were thus analysed separately.

Satisfaction played only a small positive part in determining revisit intentions and the direct effect of service quality was close to zero. Although there is often an implicit assumption in tourism literature that satisfied visitors will return, in marketing literature it is accepted that, for some types of service, repeat visitation is not a necessary consequence of satisfaction. As Oliver (1999) highlights, although repeat customers are usually satisfied, satisfied customers do not always return. Other intervening factors may counteract the effect of satisfaction (or service quality) on revisitation and these factors may not necessarily affect word of mouth.

Due to factors unique to tourism that can negatively affect repeat visitation to a place, the loyalty construct, as traditionally applied in the marketing field, cannot simply be transferred to tourism studies (Pearce & Kang, 2009). Novelty seeking, recognised as being a core motivator of tourism behaviour, is an example of one such factor (Fuller & Matzler, 2008; Oliver, 1999; Pearce & Kang, 2009). Additionally, iconic destinations such as Purnululu National Park may be visited only once. Contributing factors to this single visit could include cost, difficulty in getting to the destination, and visitors' satisfying their need to view and experience the features that make the site iconic, in this case the beehive rock formations are central to the Purnululu experience. These aspects also contribute to such destinations being identified as "once in a lifetime". Researchers at another iconic World Heritage site in Western Australia – Ningaloo Reef and the adjacent Cape Range National Park – noted that 'For Cape Range National Park and other iconic protected areas the majority of visitors are there for the first time and they might not visit again' (Moore & Polley, 2007, 299). Rivera and Croes (2010) reached a similar conclusion in their study of ecotourists to Galapagos, concluding that for these 'once in a lifetime' destinations intention to revisit may not be a relevant indicator of loyalty.

Pearce and Kang (2009) propose that satisfied visitors may 'transfer' their loyalty to other sites. Rather than returning to the same place visitors with positive and satisfying tourism experiences may develop a preference to re-engage in the same type of tourism. Understanding transferred loyalty would be helpful from a strategic point of view for public agencies managing a number of protected areas. If transferred loyalty exists at a multiple destination level, and is influenced by experiences at the individual level, each visit to a national park may be viewed as a component of a long-term relationship rather than a single transaction. The role of satisfaction or service quality in the development of transferred loyalty is so far unclear (Pearce & Kang, 2009).

Many Purnululu visitors intended to engage in positive word of mouth communications with others after their visit. Other studies have found that positive WOM is more effective than formal marketing for attracting new customers (Swanson & Hsu, 2009). Indeed, a large proportion of visitors were influenced to visit Purnululu as a result of WOM themselves. In a broader sense than simple customer creation, WOM can influence 'what people know, feel and do' (Buttle, 1998, 241). Therefore, in protected areas where visitor management is often focussed on creating knowledge of and experience in nature as well as controlling what visitors do, managers have an interest in influencing what people say and hear and what influences WOM.

Perceptions of satisfaction and service quality both influenced WOM intentions. The direct effect of service quality (e.g. the visitor centre, camping facilities, walk trails, field staff) on WOM was positive but more than twice as weak as the direct effect of satisfaction. Many other studies have also found that satisfaction is a greater predictor of WOM than service quality. Gonzalez et al. (2007) tested WOM and revisit intentions separately and satisfaction had a stronger influence than service quality on both. Satisfaction had an effect about twice that of overall service quality on behavioural intentions (including WOM) for visitors to a wildlife refuge (Tian-Cole et al., 2002) and was three times more influential for visitors to a national forest (Lee et al., 2004). In contrast, for festival visitors, service quality had a stronger effect on loyalty intentions (including WOM) than did satisfaction (Baker & Crompton, 2000). This may be because services and facilities are more

important to visitors' experiences of festivals than to visitors' experiences of protected areas and they therefore exert more influence on loyalty.

7. Conclusion

This paper makes a significant contribution to loyalty research by statistically examining the loyalty construct as well as the relationship between it, satisfaction and service quality. Although research effort continues in these areas, limited analysis of the loyalty construct has been undertaken and these relationships in nature-based tourism destinations have received little attention (Lee et al., 2007; Moore et al., 2015; Weaver & Lawton, 2011). In a number of studies, a single loyalty construct has been taken as given even when not fully supported by the data (e.g. Fuller & Matzler, 2008; Lee et al., 2004; Nowacki, 2009). The current study addressed these research gaps by examining loyalty intentions, service quality and satisfaction and the associated relationships between them for visitors to the iconic Purnululu National Park, Western Australia.

This research confirmed that satisfaction and service quality are separate constructs with differing effects on loyalty intentions. Despite other studies also supporting this finding (e.g. Tian-Cole et al., 2002; Zabkar et al., 2010), much visitor satisfaction research continues to use service quality attributes to measure visitor satisfaction. Future research should measure satisfaction and service quality separately in order to more fully understand the tourist experience. Part of this research will necessarily include developing more sophisticated scales to measure overall satisfaction, a measurement enterprise subject to ongoing critique and attention in nature-based tourism research (e.g. Tian-Cole & Crompton, 2003). The experiential basis of visitor satisfaction judgements makes measuring and managing it challenging. However, it should continue to be a priority for researchers because, as this study showed, satisfaction has a much stronger effect on both word of mouth and revisit behavioural intentions than service quality.

There is also a growing interest in researching benefits accrued through visiting and the positive effect of benefit accrual on satisfaction and loyalty (Crilley et al., 2012). In Crilley et al.'s (2012) study of

the World Heritage listed Kakadu National Park, they found that benefits, such as experiencing and learning about nature, were more strongly correlated with overall satisfaction and recommending to others (part of the loyalty construct) than were service quality items, such as provision of information and cleanliness of facilities. Further research is required to investigate these potential relationships between benefits accrued, satisfaction and loyalty. Moore et al. (2015), in their review of the research needs for visitor loyalty and satisfaction with respect to nature-based tourism, flag the benefits-satisfaction-loyalty conundrum as an essential focus for future research.

Finally, the finding that revisiting and positive word of mouth intentions were not highly correlated in this study suggests a need to reconceptualise loyalty in relation to iconic, remote parks or 'once in a lifetime' destinations (Rivera & Croes, 2010). For these destinations there may be more important ways for visitors to demonstrate their loyalty than a commitment to return. One such avenue for further investigation is whether loyalty is shown by visitors through an allegiance or desire to visit other iconic or 'once in a lifetime' nature-based tourism destinations and how this could be used and marketed by managers of these destinations. Interestingly, the US National Park Foundation has recently created a "bucket list" (i.e., must see in your lifetime) of national parks to visit suggesting that visitors may indeed have a broad loyalty to such iconic sites (USNPF, 2016).

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²The questionnaire also included questions on the performance of individual services and facilities but the results are not reported in this paper as they are not directly relevant to the conceptual framework and hypotheses.

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Fig. 1. Conceptual model of relationships between satisfaction, service quality and loyalty.

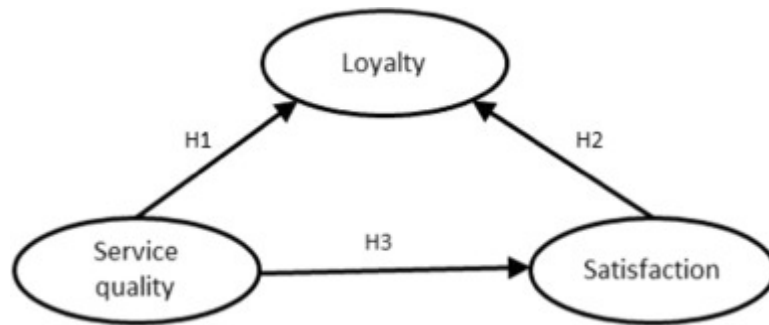


Fig. 2. Location of Purnululu National Park, Western Australia.¹

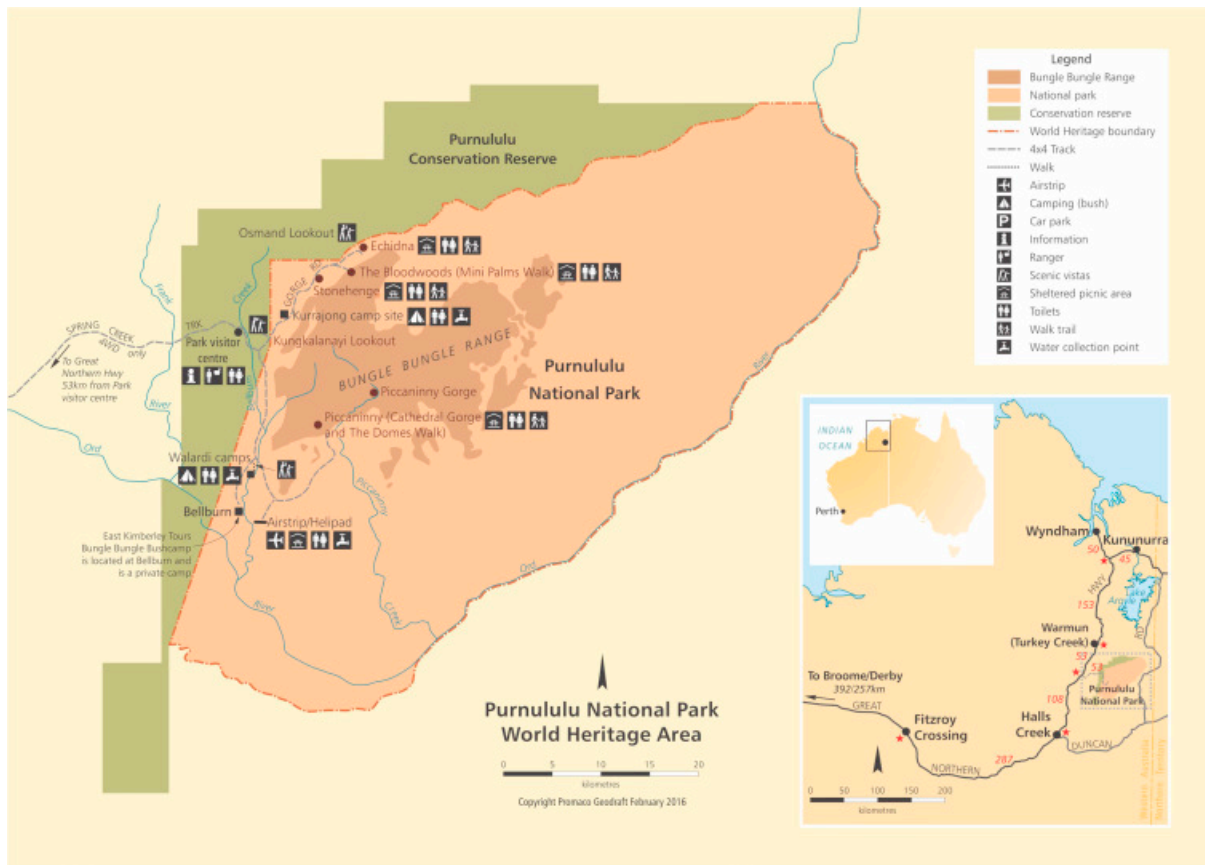


Fig. 3. Structural model of relationships between service quality, satisfaction, word of mouth (WOM) and revisit intentions (coefficients are standardised).

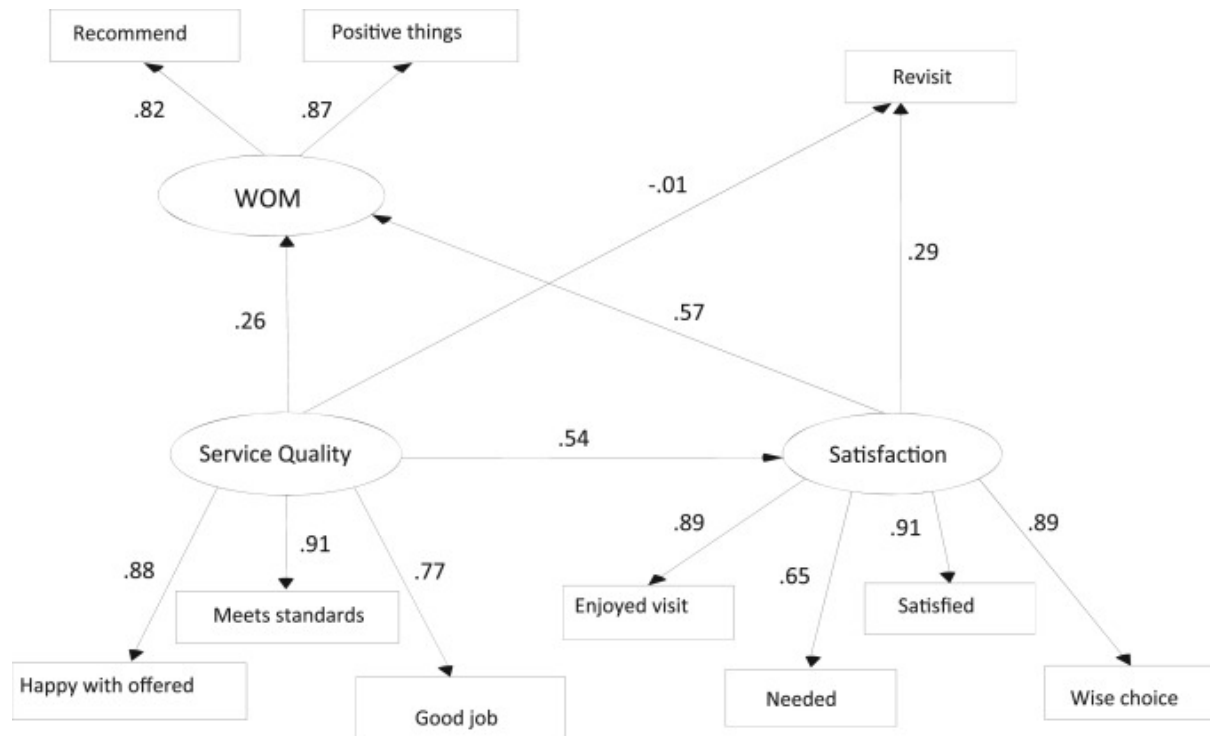


Table 1. Constructs, items and scales used in the visitor questionnaire.

Construct	Items
Loyalty behavioural intentions (1 = very unlikely to 7 = very likely)	<p data-bbox="612 434 1098 461">Say positive things about this Park to other people</p> <p data-bbox="612 490 1203 517">Visit Purnululu National Park again within the next ten years</p> <p data-bbox="612 546 1190 573">Recommend to friends and relatives that they visit this Park</p> <p data-bbox="612 602 1104 629">Say negative things about this Park to other people</p>
Overall service quality (1= strongly disagree to 7 = strongly agree)	<p data-bbox="612 665 1337 692">I am happy with the services, facilities and information offered at this Park</p> <p data-bbox="612 721 1458 775">The quality of what is offered at this Park by its managers and / or tour operators meets my standards</p> <p data-bbox="612 777 1430 804">The people that provide service, facilities and information at this Park do a good job</p>
Overall satisfaction (1 = strongly disagree to 7 = strongly agree)	<p data-bbox="612 837 1018 864">I have really enjoyed my visit to this Park</p> <p data-bbox="612 893 1070 920">My visit to this Park was exactly what I needed</p> <p data-bbox="612 949 994 976">I am satisfied with my visit to this Park</p> <p data-bbox="612 1005 1031 1032">My choice to visit this Park was a wise one</p>

Table 2. Mean scores and factor loading for each item, with variance extracted and reliability measurements of constructs.

	Mean	Factor Loading	Variance extracted	Cronbach Alpha (α)
Overall service quality	5.80		81.8	.89
Happy with offered	5.67	.91		
Meets standards	5.72	.93		
People do good job	6.01	.87		
Overall satisfaction	6.14		76.1	.87
Enjoyed visit	6.49	.91		
What needed	5.50	.76		
Satisfied	6.26	.91		
Wise choice	6.31	.90		
Loyalty Intentions*			52.4	.51
Say positive things	6.55	.84		
Recommend	6.43	.88		
Say negative thing**	6.67	.64		
Revisit	4.03	.47		
Positive WOM Intentions***	6.49		84.2	.80
Say positive things	6.55	.92		
Recommend	6.43	.92		

*This construct, measured by the four indicator variables, was not included in the measurement model due to poor validity and reliability. As such, no mean provided.

**Item excluded from further analysis.

***Construct using the two correlated WOM loyalty intentions.

Table 3. Factor analysis: indicator variables for the service quality, satisfaction and word of mouth intention constructs.

	Factor			
	1	2	3	4
SQ Happy with offered	.25	.85	.19	.05
SQ Meets standards	.20	.90	.13	.04
SQ Good job	.15	.84	.20	.02
Sat Enjoyed visit	.82	.21	.34	.02
Sat Needed	.78	.13	.03	.20
Sat Satisfied	.82	.30	.29	.03
Sat Wise choice	.83	.18	.32	.08
WOM Positive things	.28	.32	.82	.03
WOM Recommend	.32	.17	.83	.18
Revisit	.16	.05	.13	.97

Table 4. Goodness of fit statistics for the measurement model (n=515; n=511).

Statistic	Recommended cut-off values	All data (n=515)	Data without outliers (n=511)
χ^2	Low χ^2 (p>.05)	111.6(p = .00)	91.8(p=.00)
df		31	31
χ^2/df	<3	3.60 X	2.96 ✓
RMSEA	≤.06	.07 X	.06 ✓
SRMR	≤.08	.04 ✓	.03 ✓
CFI	≥.95	.97 ✓	.98 ✓

Note: X indicates not good fit; ✓ indicates good fit.