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To cite this article: Johanna Loehr, Dawn Gibson, Andrew Buckwell, Sera Vada, Christopher Fleming, Patricia Bibi, Nanise Masau, Wade Hadwen, Bronwyn Powell & Helen Johnson (2022): Using Q method to investigate the influence of inclusive water, sanitation and hygiene (WASH) on tourists' hotel choice in Fiji, *Current Issues in Tourism*, DOI: [10.1080/13683500.2022.2035699](https://doi.org/10.1080/13683500.2022.2035699)

To link to this article: <https://doi.org/10.1080/13683500.2022.2035699>

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 Published online: 13 Feb 2022.











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Using Q method to investigate the influence of inclusive water, sanitation and hygiene (WASH) on tourists' hotel choice in Fiji

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ABSTRACT

Consequent to the COVID-19 pandemic and the reopening of international borders, tourists are increasingly concerned about sanitation and hygiene practices in tourism destinations. There is an evident need to investigate how the COVID-19 pandemic has transformed tourist choices. This paper investigates the perceptions of hotel staff and tourists on the influence of inclusive water, sanitation, and hygiene (WASH) practices on tourists' hotel choices in Fiji. This study explores the value of Q-methodology through a case study of Fiji with data collected from 80 hotel staff and 75 tourists. The findings demonstrate that Q-methodology is effective in identifying three tourist types who have a strong interest in WASH impacts and aspects of their safety including concerns about how their visit impacts the local community and environment. Similarly, the Q method was useful in identifying four perspectives of staff understanding on WASH impacts that are significant to tourists' choice of hotel. The findings suggest a significant potential for hotel operators to enact socially inclusive WASH practices to enhance their appeal in the 'new normal'.

ARTICLE HISTORY

Received 20 December 2021
Accepted 25 January 2022


KEYWORDS

Q method; water; sanitation; hygiene; inclusive; Fiji

1. Introduction

The COVID-19 pandemic has renewed awareness of the importance of water, sanitation, and hygiene (WASH) practices in sustainable tourism. There is limited academic scholarship on health-related crises and their impacts on the tourism sector, in developed and emerging economies (Novelli et al., 2018) and limited existing research on how the COVID-19 pandemic has transformed tourist preferences and behaviours (Zenker & Kock, 2020). As part of preparing for a reopening of international borders, the tourism sector, including hotels are concerned with how they might consolidate trust with guests around the health and safety of travelling whilst ensuring the safety of host communities (Qiu et al., 2020). This requires focusing on guest safety and protection from infections, as well as protecting staff and the wider community from the risk of being infected with COVID-19 by tourists. The challenge hotel operators face is to what extent should they assume this responsibility and take action and, if so, will such actions positively influence hotel choice by potential tourists and thus drive future business.

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 Supplemental data for this article can be accessed at <https://doi.org/10.1080/13683500.2022.2035699>

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There is also a growing need for tourism to expand the focus from business operations alone towards actions that deliver positive socio-environmental outcomes to host communities (Loehr et al., 2020). The COVID-19 pandemic has created the opportunity to act on calls for tourism to deliver more holistic benefits (Organisation for Economic Co-operation and Development, 2021). As many tourism destinations prepare for the reopening of international and domestic borders, it is time for the tourism sector to consider its socio-environmental sustainability (Romagosa, 2020) especially in relation to impacts on indigenous communities (Movono & Dahles, 2017).

This study examines three important gaps. First, whilst there is an extensive body of research on the factors that influence tourists' hotel choice (Dolnicar & Otter, 2003; Khan, 2017), limited studies examine the impact of WASH factors alongside other hotel attributes in relation to tourists' hotel choice. Hence, there is a need to understand tourists' choices in relation to the impacts and transmission pathways of COVID-19 and other WASH-related diseases (Liu et al., 2020). Second, given the potential impacts of COVID-19 on staff and local communities in tourism destinations, there is also an opportunity to reflect the hotels' impact on wider destination elements, such as local people and the environment. Finally, this study addresses a methodological gap in the tourism literature by employing Q-methodology, a research method that tourism researchers rarely use, which can provide valuable information in critical tourism research about inclusive WASH (Stergiou & Airey, 2011). Q-methodology helps the researcher to reduce complexity. The more complex a problem, the greater the number of plausible and coherent perspectives, as the understanding of the nature of complex links becomes more personalised and less subject to repeatable proofs. Q-methodology assumes preferences for a wide range of factors (for example, for WASH practices and hotel attributes) are relatively consistent and coherent amongst groups of respondents who share similar worldviews. Addressing these gaps in understanding of tourists' values and decision-making may assist in developing the business case for hotels to invest in safe water and sanitation facilities and hygiene practices, while also considering gender equality, disability, and social inclusion (hereafter referred to as 'inclusive WASH').

Therefore, the overall aim of this study is to apply Q-methodology to investigate the influence of inclusive WASH practices on tourists' hotel choice in comparison to other hotel attributes, in the context of COVID-19, and to assess whether hotel staff understands what factors are important to their guests. To the best of the authors' knowledge, there has been no research to capture tourist hotel choice in Fiji's tourism market, with a focus on the influence of inclusive WASH. This is also the first study to address hotel staff's perceptions of what tourists consider important when choosing hotels in Fiji. Two research questions guided the research:

RQ1: What are tourist preferences when choosing hotels in Fiji?

RQ2: What do hotel staff perceive as important to tourists when choosing hotels in Fiji?

Despite the connections between inclusive WASH and risks of transmission for COVID-19, these links are often overlooked, especially in planning the Corporate Social Responsibility (CSR) activities of tourism businesses (United Nations World Tourism Organization, 2017). Information on how tourists value inclusive WASH attributes is critical as tourism recovers from the COVID-19 pandemic, particularly as tourism enterprises re-open and seek to market themselves as safe and sustainable actors supporting the health and well-being of staff and local communities.

2. Literature review

2.1 Hotel attributes

Research on the importance of hotel attributes to potential guests is well established and understanding these attributes is seen as critical to hotel owners and operators because of the high cost of investment in hotel development to meet guest expectations (Dolnicar & Otter, 2003) and, in the current context, to best position the business following the pandemic (Jiang & Wen, 2020).

Early studies relied on Likert-scale instruments to assess the importance of hotel attributes influencing satisfaction and hotel choice. These studies tested a wide range of attributes linked to different aspects of the hotel and customer experience, and identified cleanliness, price or value for money, brand, location, quality of service, room quality, facilities, security, and staff attitudes including courtesy of employees as important (Chu & Choi, 2000). Previous studies have exploited the burgeoning volume of data from online reviews to qualitatively assess the hotel attributes about which customers had praised or complained (Khoo-Lattimore & Ekiz, 2014). Features of rooms, value and quality of service, staff behaviour, and the quality of guest/employee interaction have been considered most important to guest satisfaction. Despite the importance of staff and the interaction with local people, previous studies have not assessed the importance of social inclusion practised by hotels.

Previous studies have also compared the importance of sustainability attributes to that of traditional hotel characteristics and the willingness to pay for them. Njite and Schaffer (2017) found that sustainability ('green and conservation') was not an important attribute when booking hotels whilst Chou and Chen (2013) found that tourists were willing to accept a compromised service quality if linked to green hotel practices. León and Araña (2014) also found that tourists were willing to pay more for destinations with a CSR profile compared to those without CSR initiatives. Thus, CSR projects may have a positive influence on tourist attitudes (Boccia et al., 2019). Studies on sustainability attributes and their influence on guest preferences mainly focus on environmentally friendly initiatives by the hotel (recycling, efficient appliances, electricity controlled key card) (Chou & Chen, 2013). Fewer studies incorporate attributes on social sustainability and inclusion. WASH practices beyond cleanliness are also not considered.

2.2 Water, sanitation, and hygiene attributes in hotels

The post-COVID tourist foresees a high risk of traveling for leisure (Seyfi et al., 2021), safety and security have been identified as critical in tourists' hotel choice, and guests are willing to pay extra for health and safety measures such as contact-less check-in/check-out options, pre-check-in health screening and boxed meals (Aiello et al., 2020).

It has been noted that guests' evaluation of their hotel experience is subjective and includes tangible and intangible service attributes thus making it difficult to identify the importance of specific features for all tourists (Dolnicar & Otter, 2003). While choice attribute studies go beyond Likert-scale questionnaires, allowing respondents to evaluate certain attributes in relation to each other, more nuanced approaches are required to gain a full picture of how attributes of differing categories compare.

2.3 Case study destination: Fiji

Tourism in Fiji was an expanding industry that became a priority sector for the Fijian government to achieve sustainable economic growth and, in early 2020, tourism contributed an estimated 17% of Fiji's GDP and provided direct and indirect employment to an estimated 118,000 people (IFC, 2020). According to the National Fijian Tourism Plan, tourism has been the source of both national and familial income due to its capacity to provide skilled employment; it supports, on average, one-third of Fiji's total labour force (IFC, 2020). Although tourism in Fiji has contributed significantly to a reduction in poverty, impoverishment remains a key social problem. The remote location of many outlying islands poses difficulties in providing quality education, health, and public services, such as WASH.

3. Method

3.1 Introduction to Q-Methodology

This study applied Q-methodology (hereafter 'Q') to (1) identify what values and significance participants assign to certain issues; (2) group participants based on their perceptions on an issue and; (3)

structure participants' subjective views (Tan et al., 2014). Q combines a qualitative and quantitative approach by applying factor analysis to identify correlations between people's subjectivities on a specific question. Samples are usually collected purposefully (Barry & Proops, 1999) and of relatively small numbers (30–100 participants in previous tourism studies) (Shen et al., 2020).

Q is facilitated in-person or via an online platform (Herrington & Coogan, 2011), by asking participants to sort a number of statements (Q-sort) based on their perceived importance, following a lead question. As shown in Figure 1, statements are placed onto a grid taking the shape of a quasi-normal distribution, presenting fewer options to place statements on either extreme (very important or not important at all). This requires respondents to consider statements in relation to each other, which sets Q apart from Likert-scale type questions (Watts & Stenner, 2005). Q thereby offers a method that can provide rich insights into tourists' attitudes and values regarding making decisions on accommodation that choice experiments and surveys cannot. Results are not presented in the form of percentages valid for a large population but as detailed typologies of tourists who share similar perspectives specific to the context of a destination.

3.2 Data collection

The Q-sort for this study consisted of 34 statements describing variables that may influence a tourist's choice of hotel. To arrive at these statements, a review of existing studies on hotel choice was conducted to identify variables which were informed by the WASH literature, including a WASH-at-Work framework (UNICEF, 2019). This list was revised and condensed through several rounds of reviews by five experts on tourism, gender, and WASH. The 34 statements were pilot tested asking tourism and WASH stakeholders in Fiji to review statements and place them as: More important and less important. Second, respondents were asked to sort each pile of statements in order of importance, upon which the order was discussed, and an opportunity provided for participants to add any other important aspects not yet covered. Feedback was used to refine the wording of statements to ensure they could be easily understood and to also clarify the process of administering the Q-sort with the local researchers across case study sites. The final list of statements was grouped into seven categories: Environmental sustainability, Inclusion and social sustainability; Hotel brand, value,



Figure 1. Top row: Statements with context specific illustrations. Bottom row: Participants conducting the Q-sort.

facilities; Location and local experiences; Safety; Hotel impact on WASH in the surrounding area and quality of WASH facilities. Each statement was printed on a card together with an illustration reflecting the Fijian context to support their meanings (Figure 1).

Hotel staff in Suva and the Coral Coast were approached to participate in focus groups to individually complete the Q-sort. To overcome the limitations imposed by COVID-19 travel restrictions, the online platform Q-sorTouch was used instead, to which a link to a short introduction video, explaining how to complete the Q-sort was added. The link to the platform was emailed to previous guests by participating hotels and shared on various social media pages. The tourist survey was open from May to September 2020 and participants qualified if they had visited one of the case study locations within the past 12 months. Q-data in hotels were predominantly collected in-person (Figure 1) between July and September 2020 whereby tourists were asked to sort statements into nine columns of importance in response to the question 'What is important to you when choosing a hotel?' Hotel managers and staff were asked to sort the same statements and were asked 'Why do you think people choose to stay at this hotel?' All participants provided demographic information and, following the completion of the Q-sort, were asked open-ended questions to explain their reasoning of why they had chosen particular statements as the most and least important. In total, 80 valid Q-sorts were collected from hotel staff and 75 from tourists.

3.3 Data analysis

Data were analysed for hotel staff (including managers, hereafter referred to as 'staff') and tourists separately. The software KenQ (Banasick, 2018) was used to statistically identify factors representing each of the two groups of respondents (visitors and staff). First, we calculated correlations between the respondents' Q-sorts to create a correlation matrix, which was then subject to factor analysis using Principal Components Analysis (PCA) to explain the maximum variance for each factor from the dataset. KenQ extracts eight factors by default when using PCA. Varimax rotation was then applied to avoid confounding sorts (i.e. responses that load into more than one factor) (Webler et al., 2009). Sorts that did not load into any of the final factors were excluded. The final number of factors extracted for further analysis fulfilled the Kaiser-Guttman criterion (eigenvalue larger than one) (Guttman, 1954) and criteria identified by Webler et al. (2009). Factors should reflect simplicity, clarity, distinctness and stability, whereby the factor membership was cross-referenced with the qualitative data from the follow-up questions (Stevenson, 2015). Summary outputs were exported from KenQ into a spreadsheet. The qualitative interpretation of the ideal sorts of each factor involved the development of crib sheets (Watts & Stenner, 2005) to identify the discourses of each group, focussing on the statements at the extremes of the sorts and by considering distinguishing statements (where the statement z-score has a P value of $<.01$) and themes of consensus. Demographic data were analysed using SPSS to provide further insights into the tourist and staff associated with each of the discourses. Data was weighted to equal out differences in the number of respondents in each demographic category (Buckwell et al., 2020) i.e. to identify what factor membership would look like if there were equal amounts of males and females in the sample.

4. Results

Three representative factors for tourists and four for staff were identified. As shown in Table 1, all factors reached the recommended 35–40% cumulative explained variance threshold (Kline, 2014), whereby the three tourist factors represent 56 respondents and the four staff factors represent 59 respondents.

The factors influencing hotel choice of different groups of tourists, and groups of staff with different viewpoints on what they think influences the hotel choice of tourists, are described in more detail below. Results of how each factor rated the importance of the 34 statements are presented in Table 2. To assist the reader with the reasoning behind our descriptions of the factors,

Table 1. Overview of factors for tourists and staff.

Factor	Tourists						Staff						
	Unrotated			Varimax rotated			Unrotated			Varimax rotated			
	Eigenvalues	Cumulative % of explained variance	No. of defining sorts ^a	Correlations between factor scores			Eigenvalues	Cumulative % of explained variance	No. of defining sorts ^a	Correlations between factor scores			
				F1	F2	F3				F1	F2	F3	F4
F1	19.4	26	35	1	0.306	0.43	12.6	16	20	1	0.137	0.41	0.442
F2	7.9	37	15		1	0.324	8.5	27	21		1	-0.029	0.23
F3	4.6	43	6			1	6.1	35	9			1	0.273
F4							4.9	41	9				1

^aNumber of respondents within the factor.

when we refer to the placement of a statement, we refer to both a shorthand description of the statement to ease the cognitive load and the statement number (S) to be cross-referenced with Table 2.

4.1 Tourists' factors

4.1.1 Factor 1 – it's all about me: value and comfort

Tourists associated with this discourse choose hotels based on aspects that directly benefit themselves. Respondents were seeking value for money (S16, +4) and hotel facilities (S18, +3), including access to the Internet (S20, +1). On the other hand, trust in the brand (S27, –3) and star rating (S28, –4) were not important. WASH characteristics that impact directly on guests but can also be associated with personal safety were perceived as important including confidence in food safety (S8, +3) and in the safety and quality of drinking water (S12, +3). This was explained with statements like 'My husband and I are elderly so do not want to get ill from poor food, water and hygiene standards' (female, 70+ years, international tourist).

Location and local experiences were perceived as more important by this group, for example: eating locally sourced food that is safe (S19, +1), which reflects the importance of personal safety when it comes to experiences. As shown in Figure 2, the hotel's environmental sustainability, inclusion and social sustainability, and WASH impacts on surrounding environments were some of the least important attributes to this group. They also perceived hotel waste management (S21, –2) and energy savings (S23, –1) to be less important. Access for people with a disability (S17, –3) and whether community members (S3, –2) and vulnerable people (S6, –1) benefit from the visit were also much less important. That local people work at the hotel (S2, –1) was also regarded as comparatively less important. This suggests that this group was comparatively less concerned about the impacts that hotels and their visitors have on the local community and environment.

4.1.2 Factor 2 – conscious choice tourist: impact on others matter

Tourists associated with this discourse were conscious choice tourists who valued inclusion and social sustainability and were concerned about how their visit may impact the local community and surroundings. Most important to this group was the knowledge that local people work at the hotel (S2, +4). This group perceived inclusion and social sustainability as important aspects (Figure 2). In particular, it was more important that women workers are treated well (S5, +3) and that staff, especially women, are safe at the hotel (S34, +3), vulnerable community members benefit from the visit (S6, +2), and access to people with disability is provided (S17, +2). This group also considered inclusive WASH impacts on surrounding environments as important; in particular, that the hotel does not negatively impact the community's access to clean water (S13, +3) and that water savings are promoted (S22, 0). One respondent explained his reasoning with 'It's important that community have clean access to water. This promotes good hygiene, as most

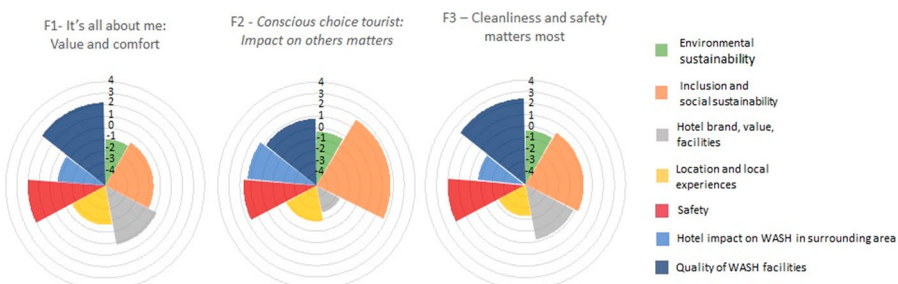


Figure 2. Tourists Factor differences in the perceived importance of aspects across the seven categories (the size of pies reflects the number of statements of each category, their level on the spectrum from –4 to 4 the perceived importance).

Table 2. The 34 Q-statements grouped into a priori categories, and their relative importance for each tourist and staff factor (Z-score variance and rank measure the difference/consensus in perceived importance between factors, whereby the lowest Z-score variance score indicates highest consensus, and is thus ranked 1, and the highest Z-score variance indicates disagreement).

Category	Statement	Tourists					Staff					
		Ideal factor score			Z-score		Ideal factor score				Z-score	
		F1	F2	F3	Var.	Rank	F1	F2	F3	F4	Var.	Rank
Environmental sustainability	21 The hotel manages solid waste well (plastics, glass, cans, organic waste).	-1	1	0	0.195	14	-1	-1	-2	-3	0.118	4
	23 The hotel promotes energy efficiency or green energy.	-2	-1	-1	0.084	5	-1	-4	0	-2	0.269	13
	24 The hotel has a focus on improving the local environment.	0	-1	0	0.013	1	-1	-2	-4	1	0.585	20
GEDSI and social sustainability	2 Local people work at this hotel.	-1	4	-1	1.001	30	-2	4	4	3	1.119	31
	3 The community benefits from my visit.	-2	0	1	0.281	16	-3	-2	-1	0	0.238	10
	5 Women workers are treated well and equally in the hotel.	1	3	-2	0.516	26	-2	3	-1	1	0.835	25
	6 Vulnerab community members benefit from the hotel: from work, money earnt by family members, village visits.	-1	2	0	0.315	19	-1	1	-1	0	0.178	7
	14 The hotel has a good reputation for contributing to the local community.	-1	0	-1	0.154	11	0	1	-1	1	0.128	5
	15 The hotel and staff respect local culture.	0	0	2	0.319	21	-2	1	0	0	0.281	14
	17 The hotel provides easy access for guests and staff with a disability.	-3	2	2	1.05	31	1	0	2	0	0.205	9
Hotel brand, value and facilities	34 The hotel is safe and secure for employees, especially women.	2	3	1	0.171	13	-4	1	-1	0	0.611	21
	16 The hotel was chosen for its value for money.	4	-1	0	1.491	34	3	-1	0	2	0.402	15
	18 The hotel was chosen for its facilities, e.g. the presence of a pool, bars/ restaurants.	3	-3	0	1.457	32	3	0	0	4	0.894	26
	20 The hotel provides access to the internet.	1	-3	-3	0.601	27	2	-1	1	1	0.268	12
	27 The hotel is a trusted brand.	-3	-2	0	0.48	25	4	0	1	-1	0.56	19
	28 The star rating of the hotel.	-4	-4	2	1.487	33	0	-2	3	-3	1.013	29
Location & local experiences	1 The opportunity to experience local culture: art, architecture, festivals, food and beliefs.	-1	-2	-4	0.299	17	0	0	4	2	0.919	28
	4 The opportunity to experience the area's natural environment.	0	-1	-1	0.051	4	2	-3	2	2	1.192	33
	19 It is important to be able to eat locally sourced food that is safe.	1	1	-3	0.825	29	1	0	3	-1	0.634	23
	29 The hotel provides a culturally authentic experience.	-2	-2	-2	0.016	2	0	-2	2	2	0.814	24
	30	1	-2	1	0.338	22	1	-1	-2	4	0.903	27

(Continued)

Table 2. Continued.

Category	Statement	Tourists					Staff						
		Ideal factor score			Z-score		Ideal factor score				Z-score		
		F1	F2	F3	Var.	Rank	F1	F2	F3	F4	Var.	Rank	
Safety	31	The location has beautiful and unique natural features and wildlife.	-3	-3	-4	0.203	15	-1	-3	-2	-1	0.091	3
	32	The opportunity for shopping and visiting local markets.	-4	-4	-3	0.096	7	0	-4	2	-4	1.511	34
	25	The location is close to nightlife and entertainment.	4	4	4	0.086	6	4	3	1	3	0.238	11
	26	The hotel is safe and secure for all guests.	2	-1	3	0.408	24	1	2	3	-1	0.541	18
	33	The hotel buildings and facilities feel safe and well-managed.	0	2	-1	0.311	18	-2	2	-3	-2	1.153	32
WASH (hotel impact on surroundings)	11	Hotel operators comply with local and national laws, e.g. for workers and the environment.	0	2	-1	0.311	18	-2	2	-3	-2	1.153	32
	11	Confident that sewage and wastewater is dealt with appropriately.	0	1	2	0.144	9	-3	2	-4	-3	1.032	30
	13	The hotel does not impact negatively on the community's access to clean water.	0	3	-2	0.63	28	-4	-3	-2	-2	0.084	2
WASH (impact on guest)	22	The hotel promotes water saving.	-2	0	-2	0.404	23	-3	-1	-3	-4	0.155	6
	7	The hotel promotes water saving.	1	1	1	0.034	3	1	2	1	1	0.032	1
	8	Confidence in good standards of staff hygiene.	3	2	1	0.13	8	2	4	0	0	0.623	22
	9	Confidence in good standards of food safety.	2	0	3	0.15	10	3	3	0	3	0.477	17
	10	Rooms and bathrooms are cleaned to a high standard.	2	0	4	0.318	20	0	0	-3	-2	0.407	16
	12	The bathroom plumbing works effectively.	3	1	3	0.167	12	2	1	1	-1	0.179	8
	12	Confidence in the safety and quality of the drinking water I am given.	3	1	3	0.167	12	2	1	1	-1	0.179	8

hotel workers live in these communities, which would give guests the confidence that they will be treated well with good hygiene practices and promotes hotel security in turn.' (Male, 29–40 years, domestic tourist). The hotel's focus on improving the environment was also slightly less important, whereby management of waste was somewhat important (S21, +1), and more important than it was to other discourses, potentially because of the impact this may have on communities.

4.1.3 Factor 3 – cleanliness and safety matters most

Tourists associated with this discourse were mostly concerned about WASH impacts and aspects of safety. It was particularly important for these tourists that rooms and bathrooms are cleaned to a high standard (S9, +4), bathroom plumbing works effectively (S10, +3), that they can be confident in the safety and quality of the drinking water (S12, +3) and that hotel buildings feel safe (S26, +3). A female respondent (20–40 years, domestic tourist) explained this reasoning with, 'safety is paramount for my family/colleagues and I [*sic*]. I expect my hotel rooms & bathrooms to be cleaned thoroughly before I check in. No exceptions'. Also, significantly more important to this

group was the star rating of the hotel (S28, +2), that hotel and staff respect local culture (S15, +2) and that sewage and wastewater are dealt with appropriately (S11, +2). Of importance to this group was that the hotel is a trusted brand (S27, 0). As shown in [Figure 2](#) aspects of location and local experiences were least important to this group. The opportunity to experience local culture (S1, -4), opportunity for shopping and visiting local markets (S31, -4) and ability to eat locally sourced food that is safe (S19, -3) were least important to this group.

[Figure 3](#) presents the demographic and trip characteristics for the three tourist types.

4.2 Staff factors

The four representative factors ([Figure 4](#)) were identified for staff as presented below.

4.2.1 Factor 1 – tourists care about brand, value and facilities

Staff associated with this discourse thought that, in addition to the safety and security of the hotel (S25, +4), brand, value and facilities were most important to guests when choosing a hotel ([Figure 2](#)). In particular, this group of staff saw the brand of the hotel (S27, +4), value for money (S16, +3), the hotel’s facilities (S18, +3) and access to the internet (S20, +2) as important. Some aspects of WASH impacts on guests, as well as safety, were also perceived to be more important by this group, as noted by the placement of statements regarding confidence in the quality of drinking water (S12, +2), effective bathroom plumbing (S10, 0) and compliance with the law (S33, +2).

Conversely, this group perceived the impacts of hotel visitors on locals, specifically aspects of inclusion and social sustainability, to be less important. That local people work at the hotel (S2, -2), women workers are treated well (S5, -2), the community benefits from tourists visiting (S3, -3), vulnerable people benefit from the hotel through employment for example (S6, -1), and hotel and staff respect local culture (S15, -2), were all perceived to be less important to hotel choice.

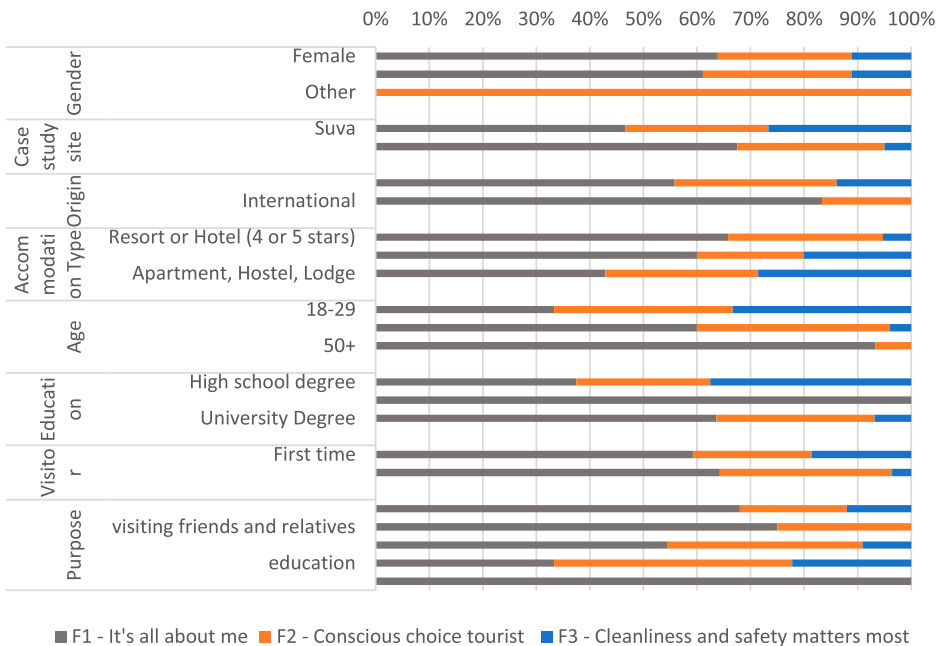


Figure 3. Weighted membership of tourist factors for selected demographic and trip characteristics.

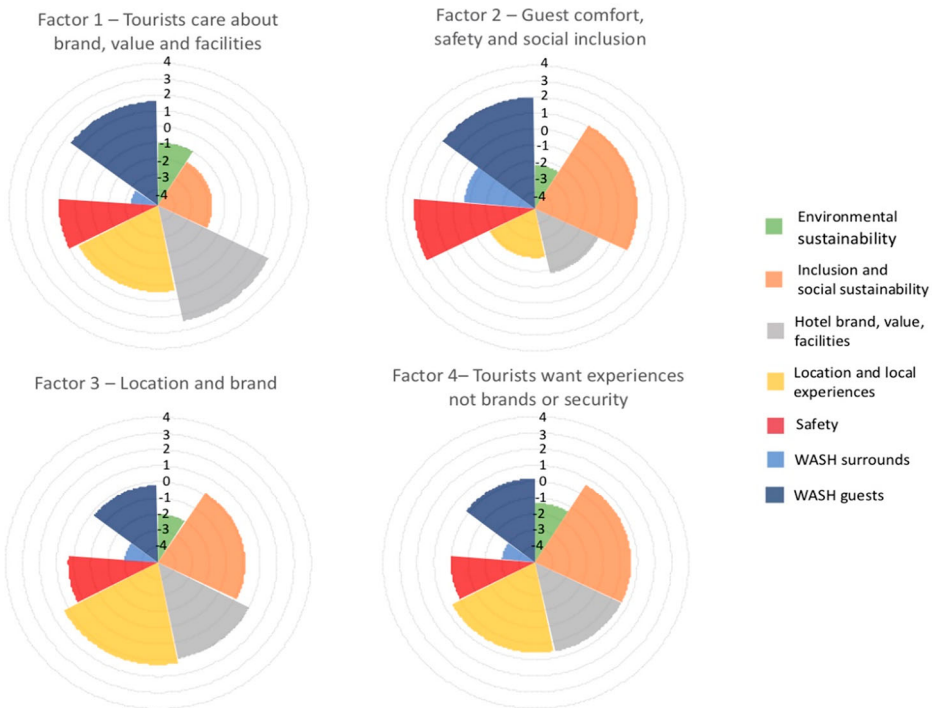


Figure 4. Staff Factor differences in the perceived importance of aspects across the seven categories (the size of pie slice angle reflects the number of statements of each category, their level on the spectrum from -4 to 4 the perceived importance).

4.2.2 Factor 2 – guest comfort, safety, and social inclusion

Staff associated with this discourse perceived aspects of guest comfort, safety, and social sustainability as most important to tourists' hotel choice. Staff rated that local people work at the hotel (S2, +4) and good food safety (S8, +4) as the most important factors influencing hotel choice. Further, this group believed aspects of inclusion and social sustainability to be more important to tourists than other staff, with positive responses to statements that women workers are treated well (S5, +3), that the hotel is safe for employees, especially women (S34, +2), the hotel and staff respect local culture (S15, +2) and that vulnerable people benefit from the hotel (S6, +2). WASH impact on guests was also perceived to be important, such as clean rooms and bathrooms (S9, +3), staff hygiene (S7, +3), and appropriate management of sewage and wastewater (S11, +2). Safety aspects were perceived to be important, including that the hotel is safe for guests (S5, +3) and building facilities feel safe (S26, +2).

4.2.3 Factor 3 – location, experience and brand (environmental aspects very unimportant)

Staff associated with this discourse perceived local/cultural aspects as most important to hotel choice, especially that local people work at the hotel (S2, +4) and visitors have the opportunity to experience local culture (S1, +4). Other aspects of location and experience were also important, and the ability to eat locally sourced food that is safe (S19, +2) and being close to nightlife and entertainment (S32, +2) were more important in this Factor than others. Further, staff in this group also perceived that visitors valued that the building feels safe and well-managed (S26, +3).

WASH aspects impacting guests which can be linked to comfort and safety, e.g. confidence in food safety (S8, 0) and effective bathroom plumbing (S10, -3) were perceived to be less important by this group. Least important to this group were environmental and WASH aspects impacting the

surroundings: confidence in sewage treatment (S11, -4), water savings (S33, -3) and that the hotel has a focus on improving the local environment (S24, -4).

4.2.4 Factor 4 – guests are after experiences not brands or security

Staff associated with this discourse thought facilities (S18, +4) and wildlife features of the location (S30, +4) were most important to hotel choice. These staff also thought other aspects of the location and local experience were important, including that the hotel provides a culturally authentic experience (S29, +2), the opportunity to eat local food (S19, +3) and experience the environment (S4, +2). This group also thought it to be more important to tourists that the hotel focuses on improving the local environment (S24, +1). Interestingly, aspects of safety and WASH impacts on guests were less important than they were for other factors, including safe and well-managed buildings (S26, -1), compliance with laws (S33, -2), confidence in and food safety (S8, 0) and the safety and quality of drinking water (S12, -1).

Figure 5 represents the demographic and work characteristics of staff.

4.2.5 Staff and tourists consensus and contentions

Table 3 presents the statements with the highest and lowest congruence between the average ranking of the statements by the tourists and staff, in effect showing a comparison of what staff perceives to be important for tourists’ hotel choice and what tourists actually consider when choosing a hotel. The most congruent statements correlate with statements ranked highly by *Conscious choice tourists: Impact on others matter* (F2) tourists and *Cleanliness and safety matters most* (F3) tourists, where staff hygiene matters, rooms and bathrooms are cleaned to a high standard, that the hotel is treating women equally and has a credible reputation for contributing to the local community.

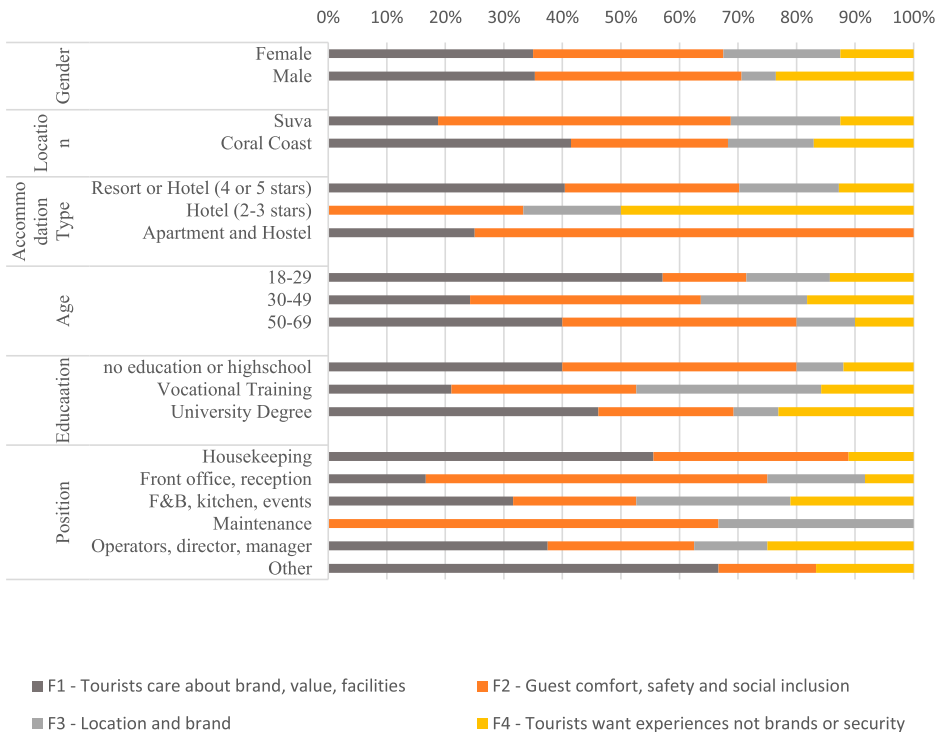


Figure 5. Weighted membership of staff factors for selected demographic and work characteristics.

Table 3. Where do average visitor and average staff agree/disagree.

Rank	Statements	Congruence	Visitor average	Staff average
<i>Top 5 agreement</i>				
1	16. The hotel was chosen for its value for money	0.034	0.36	0.408
2	7. Confidence in good standards of staff hygiene	0.081	0.423	0.538
3	5. Women workers are treated well and equally in the hotel	0.088	0.207	0.083
4	9. Rooms and bathrooms are cleaned to a high standard	0.107	0.837	0.988
5	14. The hotel has a good reputation for contributing to the local community	0.149	-0.293	-0.083
<i>Bottom 5 agreement</i>				
1	1. The opportunity to experience local culture: art, architecture, festivals, food and beliefs	1.167	-1.003	0.648
2	10. The bathroom plumbing works effectively	1.068	0.81	-0.7
3	27. The hotel is a trusted brand	1.002	-0.9	0.518
4	11. Confident that sewage and wastewater is dealt with appropriately	0.919	0.597	-0.703
5	20. The hotel provides access to the internet	0.872	-0.85	0.383

5. Discussion

This study used Q to categorise (a) tourists based on their preferences when choosing hotels in Fiji, and (b) staff based on their understanding of what tourists find important, including hotel attributes on safety, WASH impacts, and inclusion. Three types of tourists were identified and while they were looking for different attributes when choosing hotels, safety of the hotel was most important to all of them. This is not surprising given the recent concerns about health risks associated with travelling, causing 'pandemic travel fear' (Zheng et al., 2021). Furthermore, all statements on WASH impacts on guests were perceived as somewhat important by all tourists, confirming previous studies suggesting that tourists' selection and evaluation criteria of services may be shifting to stronger considerations of safety, hygiene and cleanliness, and self-care (Jiang & Wen, 2020). The consideration of such criteria over other hotel attributes will likely be part of the adoption of more cautious travel behaviour following the pandemic. For example, it has recently been shown that many tourists seem receptive to technological innovations that reduce risk and increase reliability, for example at check-in or when ordering meals, allowing tourism practitioners to provide more sustainable tourism options (Ivanov et al., 2020). Tourists find technological solutions, such as scannable QR codes, contact-less hotel check-in capabilities, mobile room keys, touchless payments, and in-app ordering (Rahimzhan & Irani, 2020) beneficial as this reduces their perceptions of risk.

Conversely, this study found that social inclusion and WASH impacts on the surroundings were of differing importance to the groups. *Conscious choice tourist: Impact on others matter* (F2) were the most concerned with the hotel's impact on local people and the environment, including WASH impacts on the surroundings, followed by *Cleanliness and safety matters most tourists*, who perceived cleanliness as most important. These two discourses contained larger percentages of younger tourists thus confirming findings by Randle et al. (2019) that 'CSR-sensitive bookers' are significantly younger. Further, *Conscious choice tourists* and *Cleanliness and safety matters most tourists* were strongly represented by domestic visitors. While Kasim (2008) did not find a significant difference of 'caring' between domestic and international tourists in Malaysia, comparable research on domestic tourists in the South Pacific is lacking. Domestic tourists in Fiji may be more concerned with the hotel's impact on surroundings because they feel a higher responsibility or connection to the land and local people.

The comparison between tourist discourses and staffs' understanding of them highlighted that three out of the four staff groups overestimated the importance of location and experiences such as access to entertainment. Indeed, all groups of tourists rated the importance of statements on location and experiences as relatively low. This may be linked to the purpose of the trip (perhaps not a priority when travelling for business or educational purposes), to the origin of

the tourist (cultural experiences may be less interesting to domestic tourists) or because other attributes such as safety concerns or value for money and facilities (it's all about me tourists) were regarded as more important. Furthermore, hotel staff underestimated the importance of safety and WASH impacts. These included particularly WASH impacts on surroundings but also confidence in the safety and quality of drinking water, which tourists perceived as more important than staff thought it would be. While some groups of staff have a broad understanding of what their guests' value, this understanding can be improved to specifically target certain markets, such as domestic tourists travelling for business or education and to enhance their customer experience. Considering that the international market has dominated the Fijian tourism sector (WTTC, 2020), and many destinations are incentivising domestic tourism as a vehicle for recovery (IMF, 2021), it is timely to review hotel offerings, engagement in inclusive WASH initiatives and messaging.

5.1 Theoretical contributions

While previous studies have assessed the importance of different attributes using surveys and choice experiments, this study has shown that Q provides a more holistic understanding of the nuanced differences between the discourses of tourists' hotel choices. This study therefore makes an important contribution by advancing our understanding of tourist segments which perceive sustainability initiatives, particularly inclusive WASH attributes, as important and support hotels in providing more holistic benefits to the wider destination. Tourist hotel preferences are influenced by well-recognised and intersecting geographical and commercial attributes but also by personal subjectivities and mutual understandings of shared experiences of the world. Understanding what influences an individual's actions, for example, at which hotel they stay, benefits from appreciating the context of their individual and shared experiences, and dominant discourses. Our work contributes to the literature on understanding the motivations for tourist choices and how WASH and sustainability attributes link to broader aspects of tourists' experiences.

5.2 Practical implications

Closed borders and uncertainty about when international travel will recover to pre-COVID-19 levels (UNWTO, 2020) presents an opportunity for the accommodation sector in Fiji to attract domestic visitors by adopting a stewardship approach to addressing destination WASH concerns (Dwyer, 2018). Such an approach would see hotels make their WASH programmes inclusive and extend them beyond the hotel boundaries to positively impact neighbouring communities and the wider destination (OECD, 2021). This may be achieved by implementing Inclusive WASH-at-Work programmes which deliver education and awareness on personal hygiene practices for staff at work and at home, providing appropriate WASH facilities at the hotel and ensuring these are accessible to the elderly and disabled, and supporting civil society organisations in community WASH programmes (ILO, 2016). Such programmes may be classified as CSR initiatives whereby organisations acknowledge and fulfill their responsibility towards societal, environmental, and economic well-being. Expanding the reach of inclusive WASH programmes to address environmental and water stewardship specifically will also build greater resilience and sustainability at the destination scale (Hadwen et al., 2015) and contribute to Sustainable Development Goals 5 (Gender Equality) and 6 (Clean Water and Sanitation) (Loehr et al., 2021). Tourism marketers can also include their CSR initiatives such as hotel-supported WASH improvements in surrounding communities in promotional material (website, brochures). Furthermore, linking the Q-methodology discourses to demographics provides hotels with insights that can inform the development of targeted marketing strategies (Dolnicar & Lazarevski, 2009), for example, to attract domestic tourists specifically or to reposition themselves to attract the first returning international visitors once borders re-open.

6. Conclusion

As the COVID-19 pandemic has led to an elevated interest in inclusive WASH practices, tourism operators will increasingly need to practise and market their capacity to protect guests, staff, and local communities as they re-open for business. This study sheds light on the influence of inclusive WASH on tourist hotel choice in Fiji and indicates the increasing importance of sustainability triggered by the COVID-19 pandemic. The results of this study generated three segments of tourists – *It's all about me*, *Conscious choice tourists* and *Cleanliness matters most tourists*. The study also outlined that hotel staff have four common perceptions of what tourists consider when choosing hotels in Fiji; these were: (1) *Brand, value and facilities*; (2) *Guest comfort, safety and social inclusion*; (3) *Location and brand*; and (4) *Tourists seek experiences and not brands or security*. When comparing what tourists want to what hotel staff understand important attributes to be for tourist hotel choice, this study found that common factors across tourist and staff perceptions were that the hotel rooms should be cleaned to a high standard, importance of staff hygiene, hotel treats women workers equally and has a credible reputation for contributing to the local community. Protective health measures with a strong focus on socially inclusive WASH have a critical role in Fiji's preparation for the opening of international borders. This study therefore provides valuable insights on the hotel-purchasing behaviour of tourists to Fiji. Methodologically, this study used Q-methodology, a tool rarely used in tourism research, but which can provide critical insights on the subject of inclusive WASH in tourism.

Despite the contribution of the study, several limitations should be highlighted, which were mostly due to the COVID-19 pandemic whereby participants consisted of predominantly domestic visitors due to international border closures. Future research could consider a comparison between perceptions of domestic and international tourists. A further limitation of Q-methodology that might be a hindrance to tourism researchers, is the ranking procedure which can make Q-methodology appear similar to the tests, scales and questionnaires it purports to challenge (Watts & Stenner, 2008). Nevertheless, as noted by Uriely (2005), the use of Q-methodology fits comfortably with contemporary tourism research by enhancing the value of the lived experience of research participants.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

The work was supported by the Australian Government's Department of Foreign Affairs and Trade through the Water for Women Fund. This research project "Inclusive Stewardship for WASH (IS4W)" (2019/899) was approved by the Griffith University Human Research Ethics Committee.

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