Complexity and Simplification in Understanding Travel Preferences Among Tourists

Torvald Øgaard1*, Rouven Doran2, Svein Larsen2 and Katharina Wolff2

1 Norwegian School of Hotel Management, Faculty of Social Sciences, University of Stavanger, Stavanger, Norway
2 Department of Psychosocial Science, Faculty of Psychology, University of Bergen, Bergen, Norway

Travel preferences are complex phenomena, and thus cumbersome to deal with in full width in diagnostic and strategic planning processes. The aim of the present investigation was to explore to what extent individual preferences can be simplified into structures, and if tourists can be grouped into preference clusters that are viable and practically applicable for tourism planning. Building on prior studies that have validated survey instruments designed to measure different tourist role orientations, we used a factor analytical approach to develop a simplified structure of individual preferences, and a standard clustering technique for grouping tourists into preference clusters. Further analyses indicated that preference clusters based on reduced factor preference-data are to some extent related to context-specific valuations, perceptions, and revisit intentions; however, the magnitude of differences between groups was rather small. Overall findings provide reason to suggest that the identified preference clusters are insufficient when it comes to explaining variability in which aspects tourists emphasize as part of their vacation. Possible managerial implications and methodological limitations of the present investigation are noted.

Keywords: tourist role orientation, destination valuations, destination perceptions, revisit intentions, novelty, familiarity

INTRODUCTION

A fundamental need for any business or public planning in the tourism sector is to map heterogeneity among people (Dolnicar, 2008) and to understand the psychological processes involved in the construction of the tourist experience (Larsen, 2007). Products and services offered within the sector are complex and individual preferences may comprise one or more of the following elements: nature, culture, food, activities, social interaction etc. The experiences of a destination will comprise an even more complicated process involving both elements that a person has preferences for, and numerous additional expected and unexpected exposures to elements that may be important for the total experience. Planners and managers in the tourism industry who are eager to make evidence-based decisions may therefore benefit from searching, surveying, incorporating, synthesizing, and presenting such information; for a more broad discussion on opportunities for tourism marketing research, see Dolnicar and Ring (2014).

While information about preferences can be available from public source materials, such as the number of tourists visiting a specific destination at a given moment in time, further information that is more detailed can be collected and then be evaluated by the tourism industry itself.
For this purpose, there have been numerous market segmentation studies to suggest a wide range of objective and subjective measures aimed at categorizing individuals into groups (Diaz-Martín et al., 2000; Frochot and Morrison, 2000). The groups developed in these studies more often than not were data-driven, and in spite of them producing adequate segmentation of specific groups in particular contexts and at a given point in time, the resulting segments were less comparable across studies; thus, limiting cumulative knowledge development. And even though these studies quite often were able to simplify the data-structure, the obtained structure was typically not standard and transferable across studies, and the stability of the segments was not a major concern (Dolnicar, 2008).

An inspection of the existing literature suggests that efforts to simplify and structure data addressing preference heterogeneity in tourism settings have progressed along different lines. Some studies have focused on simplifying the structure of the data by reducing its complexity through collapsing the number of independent elements into broader categories (e.g., Mo et al., 1993; Jiang et al., 2006; Gnoth and Zins, 2010), whereas other studies have attempted to group together travelers based on homogeneity alongside individual preferences (e.g., Yiannakis and Gibson, 1992; Gibson and Yiannakis, 2002). The empirical investigation reported as part of this paper sequentially addresses both of the aforementioned approaches. We first simplify the data structure of the preference-data through a factor analytic approach, and then group the tourists into clusters based on the simplified preference-data. These procedures are followed by a validation of the clusters by evaluating if they are useful for explaining context-related valuations, perceptions, and revisit intentions; for reviews on psychological and sociological approaches to understanding travel motivations, see Heitmann (2011) and Dann (2018).

One of the first attempts to describe and categorize tourists stems from Cohen (e.g., 1972) who distinguished four types based on their relationship with the tourism industry and the host country.1 On one hand, there are individuals who engage in institutionalized arrangements that have a strong need for familiarity, low interest for adventures, and little contact with local culture or hosts (described as the “organized mass tourist”), whereas others in this category are less rigid insofar that they allow some greater room for personal choice (described as the “individual mass tourist”). On the other hand, there are individuals traveling independently that restrict any meeting with the industry unless unavoidable (described as the “explorer”), and those who refuse contact with the industry altogether, put as much distance between themselves and their familiar home environment as possible, and become part of the host culture (described as the “drifter”). It is the extent by which individuals seek to move away from their familiar (social and cultural) environment that shapes their relationship with the tourism industry (Cohen, 1972) and their respective mode of experience (Cohen, 1979). While there is empirical evidence to support the view that tourists can be clustered according to the aforementioned types (Snapenger, 1987), some scholars argued that these are merely examples of an even larger number of possible roles individuals can take on when traveling for leisure purposes (Yiannakis and Gibson, 1992).

The International Tourist Role Scale (ITR; Mo et al., 1993) operationalizes the abovementioned taxonomy by distinguishing individuals based on their preferences on a novelty-familiarity continuum. The scale comprises of 20 items that aim at measuring one of three distinct dimensions used to differentiate tourists in an international context. One so-called “destination-oriented” dimension that measures the degree to which tourists prefer novel versus familiar holiday destinations. Another so-called “travel services” dimension that attempts to measure the degree to which tourists prefer institutionalized arrangements at their holiday destination. As well as an additional so-called “social contact” dimension, that seeks to assess the degree to which tourists prefer contact with local residents at their holiday destination. Previous research has reported empirical evidence in favor of a three-dimensional structure proposed by the original 20-item version (Mo et al., 1994) as well as by a revised 16-item version (Jiang et al., 2000).

With the above studies having focused upon confirming the psychometric properties of the ITR scale, others have demonstrated its predictive validity in explaining aspects of the tourist experience. For example, Wolff and Larsen (2019) showed that people who prefer traveling to familiar rather than unfamiliar destinations tend to be less likely to show an interest in trying out new food. The same study found that people who like better to avoid institutionalized forms of tourism were on average more interested in trying out new food than those favoring the opposite; the same applied to those who prefer seeking out social encounters with local people and culture. Others studies indicate that individual differences on one or more of the dimensions outlined by the ITR scale can be associated with social interactions experienced by guests (Basala and Klenosky, 2001), risk perceptions about international tourism (Lepp and Gibson, 2003), importance ascribed to vacation activities (Keng and Cheng, 1999), and preferred social contacts with hosts (Fan et al., 2017). Further research suggests that the degree to which individuals emphasize either one of the proposed dimensions can vary as a function of cultural values (Gnoth and Zins, 2010).

Research Aims

Previous studies attempting to validate theoretically developed tourist typologies have employed different methods including quantitative approaches (e.g., Mo et al., 1993) as well as qualitative approaches (e.g., Uriel et al., 2002). The present paper draws upon the idea that tourists differ in their preferences, and that considering these differences can yield useful information for planners and managers in the tourism industry. Consequently, the following section reports on an empirical investigation that set out to explore the relationship between travel preferences, destination valuations, destination perceptions, and revisit intentions. Research on these aspects can provide useful insights for at least two reasons: to gain some better understanding about what tourists search for in their vacation and to provide some

1The assumption that novelty seeking is an important factor underlying individual travel decisions can also be found in the social psychological model of tourism motivation (Iso-Ahola, 1982), the psychographic approach (Plog, 2001), and the travel career pattern approach (Pearce and Lee, 2005) amongst others.
guidance for those interested in developing products and services that address these preferences at a given destination.

MATERIALS AND METHODS

Participants

The analyzed data comprises the responses from $N = 2041$ individuals who were visiting Western Norway during the summer months. Norway as a holiday destination tends to attract visitors from abroad who seek to experience both nature and culture, preferably in combination (Innovation Norway, 2018). Participants were between 18 and 82 years ($M_{\text{age}} = 37.06$, $SD_{\text{age}} = 14.88$), were on trips that lasted between 1 day and more than 2 years ($M_{\text{days}} = 12$), and the most prevalent day for filling in the questionnaire was at day five during their current trip ($M_{\text{days}} = 5$). They differed in a variety of different ways including their gender (47.8% men, 52.0% female), accommodation (camping facility 15.0%, private pension 12.7%, HI hostel 10.8%, hotel 28.3%, cruise ship 8.7%, not specified 22.6%), continent (Europe 67.6%, North America 12.8%, South America 2.3%, Oceania 5.0%, Asia 7.5%, Africa 0.7%), and tourism type (international 94.9%, domestic 3.8%).

Procedure

To recruit participants, research assistants first approached potential participants at well-known sightseeing spots, either in person or in groups, accompanied by the question of whether they are on vacation. In a second step, research assistants invited them to participate in a study on tourist experiences granted that they are on vacation. In a second step, research assistants invited them to participate in a study on tourist experiences granted that they affirmed positive to the prior questions. A written statement on the questionnaire informed participants that there are no right (or wrong) answers, and that each of the answers would be handled confidentially. Informed consent was implied by the completion of the questionnaire.

Each participant responded to a survey distributed as part of a larger research project investigating various aspects of the tourist experience (paper questionnaire, four pages long, English language). Items included in the survey focused upon a broad range of topics relevant to illuminate experiences, perceptions, and behaviors in tourism settings; yet, this paper focuses exclusively on the aforementioned socio-demographic characteristics (see above), as well as on measures pertaining to travel preferences, destination valuations, destination perceptions, and revisit intentions (see below).

Materials

Travel preferences were measured with a revised 16-item version (Jiang et al., 2000) of the ITR scale (Mo et al., 1993, 1994). The revised scale comprises three subscales that measure reported preferences with regard to the destination itself, travel arrangements, and socio-cultural aspects linked to traveling. Respondents were asked to indicate their agreement to each of the item statements presented on a 7-point Likert-type scale (1 = Strongly disagree, 7 = Strongly agree; see Table 1).

Destination valuations were measured with 13 item statements asking participants about how important various aspects relating to their current trip were when they initially bought the trip. For each statement, respondents were asked to rate the importance of the aspect when buying the current trip using a 7-point Likert-type scale (1 = Not important, 7 = Very important; see Table 2).

Destination perceptions were assessed using a similar approach as outlined above; that is, the same selection of items were rated on the extent to which the present trip to the country offered each respective aspect, which was again made based on a 7-point Likert-type scale (1 = Not at all, 7 = Very much; see Table 2).

All surveys contained the measures described above, yet one share of the distributed surveys ($n = 1162$) further included three items to measure revisit intentions. Respondents indicated the likelihood by which they – within the next 3 years – would repeat the current trip, revisit the same city, and/or revisit the same country. Higher scores on a 7-point Likert-type scale were taken as greater revisit intentions respectively (1 = Very unlikely, 7 = Very likely; see Table 3).

| Item label | Item statement$^a$ |
|------------|-------------------|
| O1         | I prefer to start a trip with no preplanned or definite routes when traveling in a foreign country. |
| O2         | I prefer to travel to countries where they have the same tourism infrastructure (such as highways, water supply, sewers, electric power, and communications systems) as in my country. |
| O3         | I prefer to seek the excitement of complete novelty by engaging in direct contact with a variety of new and different people. |
| O4         | I prefer to travel to countries where the culture is different from mine. |
| O5         | I prefer to make no major arrangements through travel agencies when traveling in a foreign country. |
| O6         | I prefer to travel to countries with well-developed tourism industries. |
| O7         | I prefer to start a trip with no preplanned or definite routes when traveling in a foreign country. |
| O8         | I prefer to travel to countries where there are restaurants familiar to me. |
| O9         | If I find a place that particularly pleases me, I may stop there long enough for social involvement in the life of the place to occur. |
| O10        | I put high priority on familiarity when thinking of destinations. |
| O11        | I prefer to travel to countries where they have the same transportation system as in my country. |
| O12        | I prefer not to be on a guided tour when traveling in a foreign country. |
| O13        | I prefer to have little personal contact with the local people when traveling in a foreign country. |
| O14        | I prefer to live the way the people I visit live by sharing their shelter, food, and customs during my stay. |
| O15        | I prefer to have travel agencies take complete care of me, from beginning to end, when traveling in a foreign country. |
| O16        | I prefer to make friends with the local people when traveling in a foreign country. |

Response scale anchored at 1 = Strongly disagree and 7 = Strongly agree. Instructions were “Please read the following statements and indicate to which degree you agree with these statements.” $^a$From the revised 16-item version of the ITR scale (Jiang et al., 2000).

$^2$The reported number only refers to respondents who were 18 years and over at the time of the data collection. Total percentages are not 100 for each of the listed categories due to some missing values.
TABLE 2 | Measurement items for destination valuations* and destination perceptions*.

| Item label | Item statement |
|------------|----------------|
| TA1        | Affordable price |
| TA2        | Opportunity to experience nature |
| TA3        | Opportunity for outdoor activities like hiking/boating |
| TA4        | Opportunity to go fishing |
| TA5        | Opportunity for cultural experiences like museums or concerts |
| TA6        | Opportunity to visit exceptional landscapes |
| TA7        | Opportunity to go shopping |
| TA8        | Opportunity to try local food |
| TA9        | Opportunity to enjoy good climate/clean air |
| TA10       | Opportunity to meet the locals |
| TA11       | That the trip does not harm the environment |
| TA12       | That the trip does not disturb the local community |
| TA13       | That the trip contributes to the local economy |

Item statements were the same for destination valuations and destination perceptions, but response scales and instructions differed in each case. *Response scale anchored at 1 = Not important and 7 = Very important. Instructions were “How important were the following aspects when buying your current trip to Norway?” **Response scale anchored at 1 = Not at all and 7 = Very much. Instructions were “To which degree did/does your current trip to Norway offer these aspects?”

TABLE 3 | Measurement items for revisit intentions.

| Item label | Item statement |
|------------|----------------|
| VI1        | … that you will repeat the trip you are on now? |
| VI2        | … that you will visit Bergen again? |
| VI3        | … that you will visit Norway again? |

Response scale anchored at 1 = Very unlikely and 7 = Very likely. Instructions were “Within the next 3 years, how likely is it…”

Analyses

The statistical analyses were performed with IBM SPSS Statistics v. 25 in the following order. First, we re-validated the factor structure of a revised version of the ITR scale. Second, we used the developed factor structure for grouping tourists into preference segments (clusters) and then we evaluated the concurrent validity of the groups by analyzing demographic differences between these segments. Third, we analyzed if (and how) the valuation of the groups by analyzing demographic differences between segments (clusters) and then we evaluated the concurrent validity.

Cluster Analyses

Distinct clusters were uncovered using a multistep cluster analysis with individual scores on the three dimensions as inputs. We used a simplified version of the procedure recommended by Dolnicar and Leisch (2003). The respondents were randomly split into an analysis sample and a validation sample. We used the non-hierarchical K-means method on the analysis sample to identify an initial optimal solution that was next used as cluster seeds for a restricted analysis in the validation sample. The constrained solution was then compared to an unconstrained solution in the same sample; the fit was evaluated with the validity coefficient Kappa. This procedure was repeated for solutions with two to six clusters. Kappa values for the two-, three-, four-, five-, and six-cluster solutions were 0.57, 0.81, 0.74, 0.99, and 0.62 respectively. The high value for the five-cluster solution suggested that these clusters were homogenous and distinct from each other. A discriminant analysis with the five clusters...
as the dependent variable and dimensions as the independent variables correctly classified 98% of the cases. Thus, individual preferences on the three dimensions yield a high degree of convergence and cohesion along the five preference clusters (see Table 7).

Table 7 also reveals that the five clusters differ significantly along each dimension. Cluster 1 is high on the destination-oriented, the socio-cultural, and the travel arrangement dimension, corresponding to the “individual mass tourist”. Cluster 2 is high on the destination-oriented dimension, and low on the socio-cultural and travel arrangement dimensions, which corresponds to the preferences of the “organized mass tourist”. Cluster 3 is low on the destination-oriented dimension but high on the socio-cultural and travel arrangement dimensions, which is similar to the “drifter”. Cluster 4 is similar to the aforementioned in the sense that it is low on the travel-oriented dimension, which makes it correspond to the “explorer”. Cluster 5 scores fairly low on all three dimensions; this type appears to be similar to the previous, albeit with no strong preferences for social contact with locals and cultural immersion. We suggest labeling this additional group as the “lone explorer”, noting that the viability and structure of the group still has to be validated. Each one of the five emerging preference clusters reflect shared perceptions of 14, 28, 23, 16, and 20 percent of the respondents respectively; and even though some clusters are slightly larger than the “organized mass tourist” configuration, each one reflects the shared perceptions of a significant number of tourist.

To test whether the clusters revealed in the analysis can be associated with individual factors, we ran a cross-table with gender as dependent variable and the five clusters as independent. There were no significant gender differences $\chi^2(4) = 2.12$, $p = 0.71$. We also checked for age differences between the clusters. An analysis of variance suggested that the identified clusters were not closely related to age, $F(4, 1954) = 9.28$, $p < 0.001$, except for the “organized mass tourist” segment being slightly older ($M = 39.01$) and the “explorer” segment slightly younger

| Item label | Factor loading$^a$ |
|------------|---------------------|
|            | Destination-oriented | Socio-cultural | Travel arrangement-one | Travel arrangement-two | Communality |
| O1         | $-0.181$            | 0.116          | 0.635                 | 0.148                 | 0.494       |
| O2         | 0.674               | $-0.064$       | $-0.092$              | 0.098                 | 0.427       |
| O3         | 0.000               | 0.680          | 0.031                 | $-0.021$              | 0.467       |
| O4         | $-0.139$            | 0.496          | $-0.047$              | $-0.002$              | 0.280       |
| O5         | 0.045               | 0.080          | 0.130                 | 0.463                 | 0.253       |
| O6         | 0.638               | 0.038          | $-0.161$              | 0.034                 | 0.372       |
| O7         | $-0.027$            | 0.069          | 0.519                 | 0.068                 | 0.296       |
| O8         | 0.581               | $-0.039$       | 0.214                 | $-0.162$              | 0.518       |
| O9         | 0.126               | 0.466          | 0.150                 | 0.013                 | 0.282       |
| O10        | 0.491               | 0.083          | 0.194                 | $-0.208$              | 0.411       |
| O11        | 0.770               | $-0.023$       | 0.045                 | 0.040                 | 0.599       |
| O12        | 0.080               | $-0.021$       | 0.023                 | 0.517                 | 0.248       |
| O13        | 0.175               | $-0.112$       | 0.264                 | $-0.086$              | 0.142       |
| O14        | 0.000               | 0.587          | 0.010                 | 0.035                 | 0.358       |
| O15$^b$    | $-0.278$            | $-0.042$       | $-0.082$              | 0.468                 | 0.374       |
| O16        | 0.051               | 0.784          | $-0.067$              | $-0.020$              | 0.576       |
| Eigenvalue | 3.301               | 2.627          | 1.381                 | 1.230                 |             |

KMO > 0.7. Barlett’s test of sphericity was significant at $p < 0.001$. Rotation converged in nine iterations. $^a$Boldface indicates factor loadings < -0.40. $^b$Item that was reverse coded for the analyses.

### Table 7

| Item label | Factor loading$^a$ |
|------------|---------------------|
|            | Destination-oriented | Socio-cultural | Travel arrangement | Communality |
| O1         | $-0.023$            | 0.293          | 0.322              | 0.248       |
| O2         | $-0.604$            | $-0.153$       | 0.062              | 0.358       |
| O3         | 0.028               | 0.681          | $-0.016$           | 0.368       |
| O4         | 0.198               | 0.491          | $-0.041$           | 0.264       |
| O5         | 0.027               | 0.061          | 0.490              | 0.141       |
| O6         | $-0.550$            | $-0.062$       | $-0.026$           | 0.308       |
| O7         | $-0.154$            | 0.218          | 0.248              | 0.191       |
| O8         | $-0.707$            | 0.002          | $-0.032$           | 0.407       |
| O9         | $-0.152$            | 0.510          | 0.076              | 0.233       |
| O10        | $-0.600$            | 0.122          | $-0.084$           | 0.320       |
| O11        | $-0.768$            | $-0.073$       | 0.076              | 0.457       |
| O12        | 0.050               | $-0.065$       | 0.456              | 0.126       |
| O14        | 0.058               | 0.579          | 0.027              | 0.317       |
| O15$^b$    | 0.313               | $-0.084$       | 0.351              | 0.239       |
| O16        | 0.027               | 0.727          | $-0.050$           | 0.406       |
| Eigenvalue | 2.430               | 2.140          | 1.027              |             |
TABLE 6 | Descriptive statistics, Cronbach’s alpha, and bivariate correlations.

| Items                          | M    | SD   | α   | 1.   | 2.   | 3.   |
|-------------------------------|------|------|-----|------|------|------|
| 1. Destination-oriented       | O2, O6, O8, O10, O11 | 3.26 | 1.12 | 0.77 | –    | –    |
| 2. Socio-cultural              | O3, O4, O9, O14, O16 | 4.60 | 1.04 | 0.73 | –0.09| –    |
| 3. Travel arrangement         | O1, O5, O7, O12, O15 | 3.88 | 0.94 | 0.50 | 0.08 | 0.27 |

Destination-oriented: high mean indicates preference for familiarity in choosing destinations. Socio-cultural: high mean indicates interest for contact with local culture and people. Travel arrangement: high mean indicates preference for avoiding institutionalized arrangements. Correlations are significant at \( p < 0.001 \).

TABLE 7 | Mean differences in travel preferences by cluster.

| Preference segment (cluster) | ANOVA |
|-----------------------------|-------|
|                             | M     | F     | \( p \) |
| 1. 2. 3. 4. 5.             |       |       |       |
| Travel preferences          |       |       |       |
| Destination-oriented        | 4.57  | 4.19  | 2.39  | 2.67  | 2.56  | 3.26  | 860.01 | <0.001 |
| Socio-cultural               | 5.37  | 4.02  | 5.32  | 5.36  | 3.48  | 4.60  | 707.72 | <0.001 |
| Travel arrangement           | 4.74  | 3.65  | 4.66  | 3.07  | 3.40  | 3.88  | 417.82 | <0.001 |
| Number of cases per configuration | 277 | 568 | 459 | 312 | 402 |   |   |   |

TABLE 8 | Cluster members by continent.

| Continent   | n     | Preference segment (cluster) |
|-------------|-------|------------------------------|
|             |       | 1. 2. 3. 4. 5.              |
| Europe      | 1326  | 13.3% 27.5% 23.8% 12.7% 22.8% 100.0% |
| North America| 258  | 14.0% 29.8% 17.8% 27.9% 10.5% 100.0% |
| South America| 41   | 12.2% 14.6% 24.4% 39.0% 9.8% 100.0% |
| Oceania     | 101   | 7.9% 27.7% 23.8% 12.9% 27.7% 100.0% |
| Asia        | 142   | 21.1% 28.9% 26.8% 15.5% 7.7% 100.0% |
| Africa      | 12    | 8.3% 33.3% 8.3% 33.3% 16.7% 100.0% |

The overall chi square test indicated significance differences between the preference segments, \( \chi^2(20) = 99.53, p < 0.001 \). Continent subsamples were computed based on information about nationality that was provided by the participants.

(M = 33.55) than the total average (M = 37.92). Table 8 reports the results on whether the continent participants originated from related to the clusters. Though the number of respondents was quite low in some continents, and that not all differences were significant, the table indicates that “explorer” (Cluster 4) and “lone explorer” (Cluster 5) originate in somewhat different proportions from the continents.

Further Cluster Validations

Further cluster validations show that although not all differences are significant, destination valuations and destination perceptions tend to vary between preference clusters; however, these differences are comparatively small considering the available response scale options. The same table reports results on associations between the preference clusters and revisit intentions, showing that some clusters differed in their intention to repeat the trip, as well as in their intention to visit the city or the country again.

DISCUSSION

The analyzed data failed to invariantly replicate the factor scores from earlier applications of the revised ITR scale (Jiang et al., 2000), which is in line with other studies (Gnoth and Zins, 2010).
These small irregularities may signal that the factor structure of the scale is not yet fully developed, or they could be due to contextual or sample-specific processes in the current data. Because the aim was to further opportunities for comparative analyses, and since the analyzed data only weakly suggested a four-factor solution, we chose to stay with a three-factor structure across preference segments.

Our analyses indicated that based on the three dimensions tapped into by the revised ITR scale, individuals can be meaningfully grouped into clusters that mimic the four types by Cohen (1972). A closer look at the results from the cluster analyses suggested to furthermore distinguishing the "explorer" type into two sub-forms. Both prefer to visit new places, yet one group prefers cultural immersion and to meet and blend with local people, whereas the other group puts much less emphasis on cultural immersion and social contact. This supports previous literature suggesting that dividing the proposed four types further into sub-forms could prove useful to elicit information about more homogenous groups (Uriely, 2009). A next step could be to test if the same clustering pattern emerges among individuals who visit destinations other than currently investigated. Further applications of the revised framework will open for much needed research in this vein may consider including measures of cultural values to increase the robustness of its findings. There is some indication in the literature that individual scores on dimensions included in the ITR scale can be explained partly through values that are shared by individuals visiting a given destination (Gnoth and Zins, 2010).

Regarding the extent to which broader travel preferences are attached to what aspects tourists emphasize in their vacation, as can be indicated through valuations and perceptions, there was only low predictive validity. This fits to an earlier investigation by Larsen et al. (2011) who found that budget travelers were more likely to agree with statements that ascribe themselves to the "drifter" than mainstream tourists. Although the former were on average more likely to see themselves as more individualistic compared with their mainstream counterpart, both groups were quite similar when it comes to other psychological characteristics. Larsen and colleagues speculated that this might be rooted in the self-perception of backpackers and their socially constructed views of themselves as a group with distinguishing characteristics. Our current findings support this interpretation in the sense that revisit intentions were only to a limited extent (if at all) associated with broader travel preferences, at least when considering the three dimensions included in the revised ITR scale. This ties in well with literature suggesting that having a sole focus on the extent to which individuals seek novelty versus familiarity provides an incomplete picture with regard to understanding the complexity of tourist behavior (Chen et al., 2011).

The revised ITR scale has a potential to reproduce stable clustering for practitioners across time, travelers and contexts, and theoretically meaningful and comparable clusters, but much research remains before unequivocal management recommendations can be made. In our analyses of the preference-data, we applied the simple K-means clustering technique that is sensitive to sample specific variance. By our rigorous use of estimation samples and validation samples

### TABLE 9 | Mean differences in destination valuations, destination perceptions, and revisit intentions by cluster.

| Preference segment (cluster) | ANOVA results |
|-----------------------------|----------------|
|                             | 1. | 2. | 3. | 4. | 5. | M | F | p |
| **Destination valuations**  |    |    |    |    |    |    |    |    |
| Sustainable                 | 4.88 | 4.01 | 4.27 | 4.62 | 3.68 | 4.23 | 35.35 | <0.001 |
| Nature                      | 5.73 | 5.40 | 5.85 | 5.89 | 5.56 | 5.66 | 15.26 | <0.001 |
| Active                      | 4.71 | 4.01 | 4.14 | 4.52 | 3.63 | 4.14 | 56.95 | <0.001 |
| **Destination perceptions** |    |    |    |    |    |    |    |    |
| Sustainable                 | 5.26 | 4.65 | 4.86 | 5.08 | 4.49 | 4.81 | 19.48 | <0.001 |
| Nature                      | 5.90 | 5.71 | 6.11 | 6.19 | 5.89 | 5.94 | 12.89 | <0.001 |
| Active                      | 5.06 | 4.74 | 4.80 | 5.10 | 4.50 | 4.81 | 14.58 | <0.001 |
| **Revisit intentions**      |    |    |    |    |    |    |    |    |
| Repeat the trip             | 4.09 | 3.34 | 3.61 | 3.35 | 3.14 | 3.46 | 6.14 | <0.001 |
| Visit city again            | 4.34 | 3.42 | 3.91 | 3.60 | 3.18 | 3.64 | 10.86 | <0.001 |
| Visit country again         | 5.00 | 4.33 | 4.84 | 4.56 | 4.31 | 4.57 | 5.22 | <0.001 |

Mean values in bold differ significantly from the overall average. Analyses involving revisit intentions included only part of the sample (see section “Materials and Methods”). The overall ANOVA was performed with configurations as independent variable, testing the univariate hypothesis that the means of destination valuations, destination perceptions, and revisit intentions are equal across preference segments.

Note that our empirical development of the preference clusters was based on the revised ITR scale, which is but one of a number of theoretically founded alternatives (e.g., Yiannakis and Gibson, 1992; Keng and Cheng, 1999).
for establishing the number of clusters, as well as the cluster structure, we lowered the risk of sample specific findings. An important fact is that the sample was rather heterogeneous despite that all parts of the data collection took place at the same destination. It contains individuals with different socio-demographic characteristics, that varied in the duration of their traveling, and that were approached at different points during their trip. All this together lowers the probability of sample specific findings, but still, the study will have to be replicated with samples from other destinations to support our present findings.

Forthcoming studies that follow up on our suggestion to replicate the current findings in other destinations could address some limitations of the present investigation. First, given that all constructs were assessed in the same questionnaire, the predictive ability of the clusters could have been inflated by common method variance. We tried to design the questionnaire to limit common method variance by keeping measures of the different constructs well separated in the questionnaire, by wording them differently, by applying different response scales, and to lower method-dependent social desirability issues by letting the participants complete the questionnaire by themselves. Still, these remedies cannot exclude the presence of common method variance in the data (Podsakoff et al., 2012). Future studies are well advised to use different methods for assessing behavior associated with each cluster to get reliable and valid estimates of the associations (Podsakoff et al., 2003). Second, it is because of the cross-sectional design of the current study that we cannot make any conclusion about whether the clustering based on individual scores of the revised ITR scale remains stable across time. If such stability can be demonstrated for at least certain time periods, an interesting future development would be to predict future buying behavior within these periods. Third, forthcoming studies would benefit from broadening the scope toward measures of actual buying within these periods. Fourth, Cronbach's alpha was acceptable for the destination-oriented (α = 0.77) and socio-cultural dimension (α = 0.73) but poor for the travel arrangement dimension (α = 0.50), based on conventional guidelines (see Streiner, 2003). This represents a noteworthy limitation to the present investigation as clustering that relies upon aggregated measures on each of the three dimensions may lead to biased and less precise clusters, which in succession, may pose a threat to the validity of the reported findings.

CONCLUSION

This paper shows that findings from earlier applications of the revised ITR scale replicate to a certain extent in the current sample; the three main dimensions of the scale are with a few modifications reproduced. Further analyses show that the tourists can be grouped (clustered) into preference segments based on the main dimensions included in the scale, which in turn appear to be quite similar to the suggested tourist types of Cohen (1972). When comparing data on the importance assigned to specific aspects when buying the trip, or on the extent to which these aspects were offered at the destination, the various preference segments were dissimilar. Since the magnitude of these differences was rather small, preference-based clusters of tourists have nonetheless only to a limited extent different valuations and perceptions; the same seems to be the case when comparing different groups on their revisit intentions.

It is important to note that belonging to one particular preference cluster may not be unequivocally stable, just as tourist roles might develop and change over time (Gibson and Yiannakis, 2002). To get a deeper understanding of the psychological processes that take part in shaping tourist experiences, future research could extend the scope beyond theoretically developed taxonomies as employed in the present case. It seems plausible that the extent by which initial valuations correspond with perceptions during the trip constitutes another aspect that feeds into how a destination is experienced, and related decisions, potentially more so than whether individuals report to prefer more (or less) novelty (or familiarity) if traveling away from home. A more detailed discussion on how a psychological approach can be a useful starting point for social scientific enquiries on tourist experiences is provided by Larsen (2007) as well as Larsen et al. (2017).

DATA AVAILABILITY STATEMENT

The datasets generated for this study are available on request to the corresponding author.

ETHICS STATEMENT

This work complied with the general guidelines for research ethics by the Norwegian National Committees for Research Ethics in the Social Sciences and the Humanities (NESH). Formal approval by an ethics committee was not required as per applicable institutional guidelines and regulations.

AUTHOR CONTRIBUTIONS

RD, SL, and KW contributed to the conception, design, and data collection of the study. TØ performed the statistical analysis. TØ and RD wrote the first draft of the manuscript. All authors contributed to the manuscript revision, read, and approved the submitted version.

FUNDING

Data collection was funded by the Department of Psychosocial Science (Småforsk).
REFERENCES

Basala, S. L., and Klenosky, D. B. (2001). Travel-style preferences for visiting a novel destination: a conjoint investigation across the novelty-familiarity continuum. *J. Travel Res.*, 40, 172–182. doi: 10.1177/004728750104000208

Chen, Y., Mak, B., and McKercher, B. (2011). What drives people to travel: integrating the tourist motivation paradigms. *J. China Tour. Res.*, 7, 120–136. doi: 10.1080/19388160.2011.576927

Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *J. Mark. Res.*, 16, 64–73. doi: 10.2307/3150876

Cohen, E. (1972). Toward a sociology of international tourism. *Soc. Res.*, 39, 164–182.

Cohen, E. (1979). A phenomenonology of tourist experiences. *Sociology*, 13, 179–201. doi: 10.1177/00380385910030203

Dann, G. M. S. (2018). “Why, oh why, oh why, do people travel abroad?”, in *Creating Experience Value in Tourism*, eds N. K. Prebensen, J. S. Chen, and M. Uysal, (Wallington: CABI), 44–56. doi: 10.978/9781786395030.0044

Díaz-Martín, A. M., Iglesias, V., Vázquez, R., and Ruiz, A. V. (2000). The use of quality expectations to segment a service market. *J. Serv. Mark.*, 14, 132–146. doi: 10.1108/08876040010320957

Dolnicar, S. (2008). “Market segmentation in tourism,” in *Tourism Management: Analysis, Behaviour and Strategy*, eds G. A. Woodside, and D. Martin, (Wallington: CABI), 129–150. doi: 10.978/9781845935324.0129

Dolnicar, S., and Leisch, F. (2003). Winter tourist segments in Austria: identifying stable vacation styles using bagged clustering techniques. *J. Travel Res.*, 41, 281–292. doi: 10.1177/0747287502239037

Dolnicar, S., and Ring, A. (2014). Tourism marketing research: past, present and future. *Ann. Tour. Res.*, 47, 31–47. doi: 10.1177/0047287512451140

Fan, D. X. F., Zhang, H. Q., Jenkins, C. L., and Tavitiyaman, P. (2017). Tourist behaviour and tourism motivation, “in *Visitor Experience Design*, eds N. Scott, J. Gao, and J. Ma, (Wallington: CABI).

Gibson, H., and Yiannakis, A. (2002). Tourist roles: needs and the lifecourse. *Ann. Tour. Res.*, 281–292. doi: 10.1177/0047287502239037

Gnoth, J., and Zins, A. H. (2010). Cultural dimensions and the international tourist role typology in social contact: an addition to existing theories. *TPM Test Psychom. Methodol. Appl.*, 14, 3–25.

Heitmann, S. (2011). “Tourist behaviour and tourism motivation, “ in *Tourism Research*, eds P. Robinson, S. Heitmann, and P. Dieke, (Wallingford: CABI), 31–44. doi: 10.978/9781845935324.0129

Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika*, 30, 179–185. doi: 10.1007/BF02289447

Isa-Ahoila, S. E. (1982). Toward a social psychological theory of tourism motivation: a rejoinder. *Ann. Tour. Res.*, 9, 256–262. doi: 10.1177/0047287592000408

Larsen, S. (2007). Aspects of a psychology of the tourist experience. *Scand. J. Hosp. Tour.*, 7, 7–18. doi: 10.1500225701226014

Larsen, S., Doran, R., and Wolff, K. (2017). “How psychology can stimulate tourist experience studies,” in *Visitor Experience Design*, eds N. Scott, J. Gao, and J. Ma, (Wallington: CABI).

Larsen, S., Øgaard, T., and Brun, W. (2011). Backpackers and mainstreamers: realities and myths. *Ann. Tour. Res.*, 38, 690–707. doi: 10.1177/004728751038001.003

Lepp, A., and Gibson, H. (2003). Tourist roles, perceived risk and international tourism. *Ann. Tour. Res.*, 30, 606–624. doi: 10.1177/00472875103000240

McKercher, B., and Tse, T. S. M. (2012). Is intention to return a valid proxy for actual repeat visitation? *J. Travel Res.*, 51, 671–686. doi: 10.1177/0047287512451140

Mo, C., Havitz, M. E., and Howard, D. R. (1994). Segmenting travel markets with the International Tourism Role (ITR) scale. *J. Travel Res.*, 33, 24–31. doi: 10.1177/004728757940300103

Mo, C., Howard, D. R., and Havitz, M. E. (1993). Testing an international tourist role typology. *Ann. Tour. Res.*, 20, 319–335. doi: 10.1177/0160-7383(93)90058-B

Pearce, P. L., and Lee, U.-I. (2005). Developing the travel career approach to tourist motivation. *J. Travel Res.*, 43, 226–237. doi: 10.1177/0047287504204202

Plog, S. (2001). Why destination areas rise and fall in popularity: an update of a cornell-quarterly classic. *Cornell Hotel Restaur. Adm. Q.*, 42, 13–24. doi: 10.1177/0010880401423001

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., and Podsakoff, N. P. (2003). Common method bias in behavioral research: a critical review of the literature and recommended remedies. *J. Appl. Psychol.*, 88, 879–903. doi: 10.1037/0021-9010.88.5.879

Podsakoff, P. M., MacKenzie, S. B., and Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Ann. Rev. Psychol.*, 63, 539–569. doi: 10.1146/annurev-psych-120710-100452

Snepenger, D. J. (1987). Segmenting the vacation market by novelty-seeking role. *J. Travel Res.*, 26, 8–14. doi: 10.1177/004728758702600203

Steenkamp, J. E. M., and Baumgartner, H. (1998). Assessing measurement invariance in cross-national consumer research. *J. Consum. Res.*, 25, 78–107. doi: 10.1177/0047287510300103

Streiner, D. L. (2003). Starting at the beginning: an introduction to coefficient alpha and internal consistency. *J. Pers. Assess.*, 80, 99–103. doi: 10.1207/S15327752JPA8001-18

Uriely, N. (2009). Deconstructing tourist typologies: the case of backpacking. *Int. J. Culti. Tour. Hosp. Res.*, 3, 306–312. doi: 10.1178/175061809X1999453

Uriely, N., Yonay, Y., and Simchai, D. (2002). Backpacking experiences: a type and form analysis. *Ann. Tour. Res.*, 29, 520–538. doi: 10.1177/0160-7383(01)00775-7

Wolff, K., and Larsen, S. (2019). Are food-neophobic tourists avoiding destinations? *Ann. Tour. Res.*, 76, 346–349. doi: 10.1177/0047287518801010

Yiannakis, A., and Gibson, H. (1992). Roles tourists play. *Ann. Tour. Res.*, 19, 287–303. doi: 10.1177/0160-7383(92)90082-Z

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2019 Øgaard, Doran, Larsen and Wolff. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.