



FIGURE 6. SATISFACTION RESPONSES ORDERED IN SUMMARY SCALE STRUCTURE. (THIS IS SIMPLY A REORGANISATION OF MATERIAL PRESENTED IN FIGURE 5.)

### 4.1.2 Significant findings

Using the SPSS MANOVA routine, a series of multivariate analyses of variance were carried out on these satisfaction scales (e.g., the dependent variables). Differences in satisfaction scales according to age-group (under and over 40 years), gender (male/female), nationality (New Zealand/overseas), and crowding perception (uncrowded/crowded) were analysed. The same approach was subsequently used for impact perception (Section 5.1) and management attitude (Section 6.1) scales. The significant effects and interactions associated with the analyses using the satisfaction scales and these independent variables are summarised in Table 2. These results indicate that variations in satisfaction with hut conditions, information services and track conditions are particularly important for management attention.

To minimise a data constraint associated with missing values, these satisfaction analyses excluded those few (6%) who did not make use of huts. Additional analyses indicated no notable results were compromised by this exclusion.

TABLE 2. SIGNIFICANT EFFECTS ON SATISFACTION SCALES (HUT USERS ONLY).

SOURCE OF SIGNIFICANT EFFECT*	SIGNIFICANT SATISFACTION SCALES†	MEAN VALUES (ADJUSTED)‡	
		Uncrowded	Crowded
Crowded effect <i>F(4,258) = 2.54, p = .040</i>	Hut conditions <i>F(1,261) = 3.91, p = .049</i>	2.02	2.31
Gender/Age interaction <i>F(4,258) = 2.92, p = .022</i>	Information Services <i>F(1,261) = 5.10, p = .025</i>	Male	Female
		Under 40 2.22	2.21
		Over 40 2.01	2.24
Crowded/Nationality interaction <i>F(4,258) = 2.85, p = .024</i>	Hut conditions <i>F(1,261) = 9.00, p = .003</i>	New Zealand	Overseas
		Uncrowded 2.14	2.10
		Crowded 1.98	2.38

\* The significance of overall satisfaction effects was tested using the Wilks' criterion in the SPSS MANOVA.

† A series of univariate ANOVAs in the MANOVA identified the contribution of each satisfaction scale to the overall significant effect, and identified these listed scales as being significant.

‡ Mean values for the summary scales are divided by the number of constituent items to give an interpretation using the original question categories (e.g., 1 = Very satisfied 3 = Neutral 5 = Very dissatisfied)

### Crowded effect

Crowded visitors were significantly less satisfied with facilities and services than uncrowded visitors. This difference was based most upon their lower satisfactions with hut conditions. However, this finding must be seen in context of the generally high levels of satisfaction, where their mean scores remain within the 'satisfied' category. This means that crowded visitors were really only less strongly satisfied rather than being more dissatisfied. Additional

exploration<sup>4</sup> of the hut conditions scale (refer Figure 6) indicated that the crowded visitors were particularly less satisfied with the number of bunks in huts, and the space for relaxing in huts. Space and facilities for cooking, drying gear and washing-up were important to a lesser extent.

### **Gender/Age-group interaction**

This significant interaction, based most on satisfactions with information services, featured higher satisfaction among older male visitors in particular. Satisfactions of other visitor groupings were similar. Additional exploration of the 'information services' scale, which contributed most to this interaction, featured satisfaction with advice from visitor centre most prominently, followed by satisfaction with advice from wardens and information signs by the tracks. Among older visitors, males are relatively more satisfied with these facilities and services.

### **Crowded/Nationality interaction**

This significant interaction, based most on satisfactions with track conditions, featured higher satisfaction among crowded New Zealand visitors, and conversely, relatively lower satisfaction among the crowded overseas visitors. Additional exploration of the 'track conditions' scale, which contributed most to this interaction, featured satisfactions with track marking, steps, and drainage most prominently. These results suggest the perceptions of crowding may be a more negative influence on the experiences of overseas visitors, particularly related to their satisfactions with track conditions.

## **4.2 RELATING SATISFACTION SCALES TO OVERALL TRIP EVALUATIONS**

None of the satisfaction scales were significantly associated with the overall satisfaction or use-level evaluations (e.g., crowding). No notable correlations or significant relationships (using SPSS Multiple Regressions) were found. The state of facilities and services experienced on the Lake Waikaremoana Track did not appear to contribute at all to how the overall trip was evaluated. In particular, the lack of any notable relationships between overall satisfaction and any of the facility and service satisfaction scales indicates these questions represent distinctly different visitor perspectives on visit satisfaction. This is an important distinction to acknowledge, as simply applying a single overall evaluation of satisfaction appears unlikely to highlight any specific-issue satisfaction problems until they are of an order where visit quality may be already highly compromised, and the problems more difficult to manage.

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<sup>4</sup> Comparison of response to the dependent variable, for each item comprising the significant scales, was carried out mainly using the Mann-Whitney test. This provided a conservative test to identify the items which appeared to contribute most to the overall effect. Multiple ANOVA tests were also run which supported Mann-Whitney test findings. This complementary approach was applied to the constituents of all significant scales identified in this report.