

Study on Methods for Analyzing User Needs
- Survey on the Needs of Overseas Visitors for Tourism Policy Development -

Chigako Yamamoto, Graduate School of Engineering, Hokkaido University

Kei'ichi Sato, Graduate School of Engineering, Hokkaido University

Abstract

Customer Satisfaction (CS) portfolio analysis is widely used for market research and public service evaluation. Using an overseas tourist survey conducted at the Niseko Hirafu ski resort in Hokkaido, Japan, as an example, this study identifies an item that could not be properly evaluated by CS Portfolio Analysis. The tourist survey consists of two parts: (1) a survey on the importance of factors in choosing an overseas holiday destination and on satisfaction with Niseko as such a destination, and (2) descriptive open-ended questions on experiences of inconvenience in Niseko and on suggestions to make Niseko more appealing as ski resort destination. The former was analyzed by CS Portfolio Analysis, and the latter was analyzed by keyword analysis and an affinity method. According to CS Portfolio Analysis, English signage and information provision does not require improvement. According to keyword analysis, however, that item is important and urgently needs to be addressed. This discrepancy suggests that a reliance only on CS Portfolio can lead to a misreading of user needs.

Key words: CS Portfolio Analysis, dissatisfaction-unsatisfaction-attractive quality items, tourist survey, customer needs, keyword analysis, tourism policy development

1. Introduction

Customer Satisfaction (CS) Portfolio Analysis was originally called Benefit Portfolio Analysis and was developed by Usjikawa et al. (1994)¹⁾ as a method for improving office environments. They developed the method by integrating Benefit Structure Analysis, proposed by J.H. Myer (1976)²⁾, with Product Portfolio Management, developed by Boston Consulting Group in the 1970's.

In Benefit Structural Analysis, product items that provide benefits are selected. Such items are evaluated from two perspectives: importance to the user, and satisfaction of the user. The difference between importance and satisfaction is used as an indicator of the need for improvements. Product Portfolio Management is a method of analyzing the relative competitiveness of products at the corporate level. Products are evaluated from two perspectives: profits and potential market share. The evaluation results in one

of four determinations: increase investment, protect, start investment, and divest.

Benefit Portfolio combines these two. The subject is broken down into items such as quality elements or technology that are chosen to be evaluated by customers according to multiple criteria. The items with high importance and satisfaction are called “sales points”; these are to be promoted. Those with high importance but low satisfaction need to be urgently improved. Those with low importance but high satisfaction can be left as they are, or in some cases the specifications are lowered. Those with low importance and low satisfaction can be left as they are. Benefit Portfolio has been widely used in Japan under the name of CS Portfolio Analysis in commercial product development and corporate marketing. It also has been applied to governmental service evaluation in Japan. One example is in evaluation of overall public services in Miyagi Prefecture, Japan (Miyagi Pref., 2004)³⁾.

We surveyed overseas ski tourists by questionnaire at the Niseko Hirafu ski resort in Hokkaido (Japan) in February 2005 to identify strategies for tourism promotion. This resort has been successfully promoted as an international tourist destination and is well known for its superb snow. The number of tourists from Australia quadrupled from winter 2003 to winter 2004 (Hokkaido Pref., 2005)⁴⁾, and the area has become well known because an Australian company purchased part of the Hirafu ski resort and announced a large-scale resort development plan.

In this study, in addition to the survey on the levels of importance and satisfaction with Niseko Hirafu as a ski tourist resort, the results of which were used for CS Portfolio Analysis, there were descriptive open-ended questions on experiences of inconvenience in Niseko and on suggestions to make Niseko more appealing as ski resort destination. The responses to the questions were analyzed by keyword analysis to identify items of inconvenience and suggestions, and to quantify the number of people reporting those inconveniences and making those suggestions. The two analyses show some discrepancies: an item identified by CS Portfolio Analysis as not needing to be improved was found by analysis of dissatisfaction-unsatisfaction-attractive quality items to be a dissatisfaction item requiring urgent improvement. In addition, a high number of respondents suggested that there be “no change,” a suggestion that cannot be recognized by CS Portfolio Analysis.

2. CS Portfolio Analysis

CS Portfolio Analysis assumes that a potential purchaser’s decision to buy or not buy a certain product is based on the relationship between the importance the purchaser places on product quality items and the purchaser’s estimation of how well those items are

satisfied.

The average values for importance and satisfaction of an item are plotted on a plane whose axis of ordinates indicates satisfaction and axis of abscissa indicates importance. Items with high importance and high satisfaction plot in the first quadrant (Figure 1). Such items are considered “strong items” that give the product a competitive edge. Items with low importance and high satisfaction plot in the second quadrant. Because the items have low importance, they can be left as they are. Items with low satisfaction but high importance plot in the fourth quadrant: Improvements are necessary regarding these items. Items with both low satisfaction and low importance plot in the third quadrant and can be ignored (Architectural Institute of Japan, 2002)⁵.

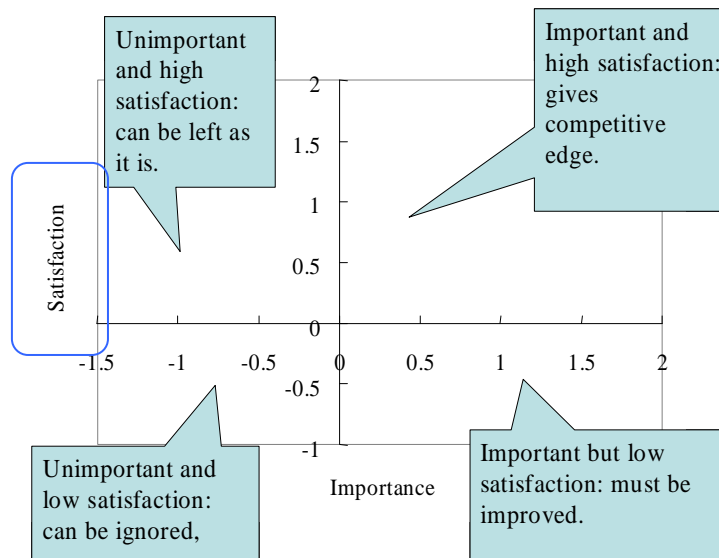


Figure 1. CS Portfolio Analysis

3. Survey

3.1. Questionnaire

A questionnaire was handed out at restaurants in the Hirafu ski area and collected there immediately after respondents filled it out (respondents: 288). The survey was conducted on February 3, 4, 15 and 16, 2005.

The survey consists of two sections. One identifies the importance of certain items to travelers selecting a tourist destination, and how well Niseko Hirafu satisfies visitors regarding those items (Figure 2). The other surveys inconveniences experienced by travelers at Niseko Hirafu and their suggestions to make the area more appealing. The former was analyzed by CS Portfolio Analysis, and the latter was analyzed by keyword analysis and an affinity method.

Q: What determines your choice of international vacation spot? (Please rate each item on a scale of 1 to 5, with 5 being the most important.)

	Unimportant		→			Most important	
	1	2	3	4	5		
a: safety	()	()	()	()	()		
b: language	()	()	()	()	()		
c: cost	()	()	()	()	()		
d: facilities	()	()	()	()	()		
e: activities	()	()	()	()	()		
f: weather	()	()	()	()	()		
g: natural environment	()	()	()	()	()		
h: time difference	()	()	()	()	()		
i: culture	()	()	()	()	()		
j: time/distance from home to destination	()	()	()	()	()		
k: warmth of locals	()	()	()	()	()		
l: cuisine	()	()	()	()	()		
m: shopping	()	()	()	()	()		
n: other: _____	()	()	()	()	()		
o: other: _____	()	()	()	()	()		

Q. How does Niseko rate as tourist destination for each of the following? (Please rate each on a scale of 1 to 5 with 3 being the average.)

	Poor	→		Average	→		Excellent
	1	2	3	4	5		
a: safety	()	()	()	()	()		
b: language	()	()	()	()	()		
c: cost	()	()	()	()	()		
d: facilities	()	()	()	()	()		
e: activities	()	()	()	()	()		
f: weather	()	()	()	()	()		
g: natural environment	()	()	()	()	()		
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i: culture	()	()	()	()	()		
j: time/distance from home to destination	()	()	()	()	()		
k: warmth of locals	()	()	()	()	()		
l: cuisine	()	()	()	()	()		
m: shopping	()	()	()	()	()		
n: other: _____	()	()	()	()	()		
o: other: _____	()	()	()	()	()		

Figure 2. Questionnaire on the importance of items and satisfaction with those items in choosing a holiday destination

3.2 Analysis

1) CS Portfolio Analysis

Figure 2 is the questionnaire used for CS Portfolio Analysis. The 13 quality items surveyed were safety, language, cost, facilities, activities, weather, time difference from home, natural environment, culture, access, distance and travel time from home, hospitality of locals, cuisine, and shopping. They were selected based on pre-survey interviews among Niseko tourism-related personnel and on conventional tourism surveys.

CS Portfolio Analysis (Figure 3) shows that Niseko is competitive on cost, facilities, activities, weather, time difference from home, natural environment, culture, access, distance and travel time from home, hospitality of locals, and cuisine. The service levels of these items should be maintained or improved. “Language” is shown to be an item that requires no additional effort, because the customers do not consider it as important. This means that the current English signage and information provision are sufficient.

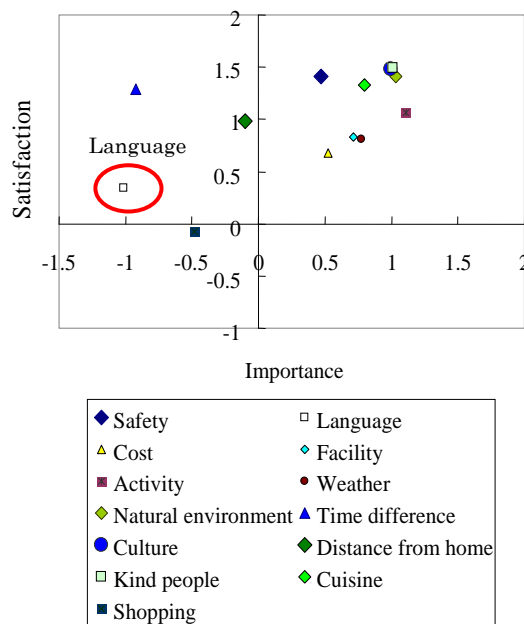


Figure 3. CS Portfolio Analysis of the Niseko Hirafu ski resort

2) Keyword analysis

The answers to these two open-ended questions were analyzed by keyword analysis:

Q1. If you have had any inconveniences in Niseko, please describe them.

Q2. Please give your suggestions to make/keep Niseko an attractive tourist destination.

Words frequently found in the responses were selected as keywords. The flow of the

keyword analysis is shown in Figure 4 as steps (1) to (4). The opinions of respondents were summarized using an affinity method (Figure 4, steps (5) and (6)). It should be noted that the respondents' satisfaction level was generally high, with 74 respondents (27.8%) answering that there were no inconveniences.

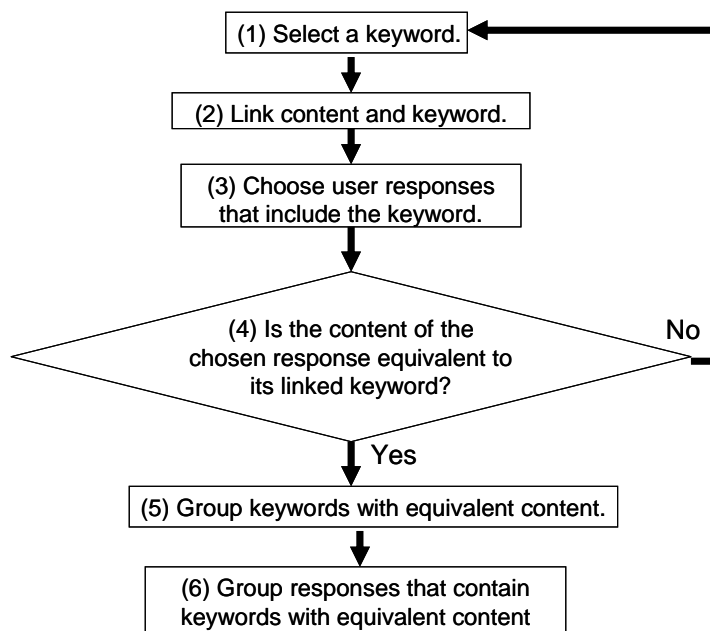


Figure 4. Summarizing respondent opinions by keyword analysis and affinity method

The analysis results for answers to the question on inconveniences in Niseko (Figure 5) indicates a high demand for English signage and information provision (35 respondents, 13.2%), followed by ski area and lift improvement (30 respondents, 11.3%). The analysis results for answers to the question on suggestions for Niseko (Figure 6) indicates a high demand for English signage and information provision (35 respondents, 13.2%), which followed the suggestion that nothing be changed (109 respondents (41.0%). The category of “no change” combines these suggestions: Niseko should be kept as it is (a relaxed rural Japanese village whose residents are extremely kind), suggested by 81 respondents (30.5%), and Western-style development should be limited, suggested by 28 respondents (10.5%). These results contradict those of the CS Portfolio Analysis. They show that there may be evaluation factors other than “importance” and “satisfaction” in evaluations by respondents.

4. Discussion

4.1 Number of respondents reporting inconveniences and making suggestions

Focusing on the items identified as inconveniences in Niseko (Figure 5) and suggestions

for Niseko (Figure 6), we found three patterns: items found in inconveniences are also found in suggestions, items found in inconveniences are not found in suggestions, items found in suggestions are not found in inconveniences. For example, communication (international telephones, Internet access) was cited as inconvenient by 12 respondents, but no one suggested that it might require improvement. In contrast, 7 respondents cited smoking in public as an inconvenience and suggested prohibiting it. Also interesting is that 109 respondents (41.0%) suggested that nothing be changed: They want Niseko to remain as it is. This suggestion does not relate to any inconvenience.

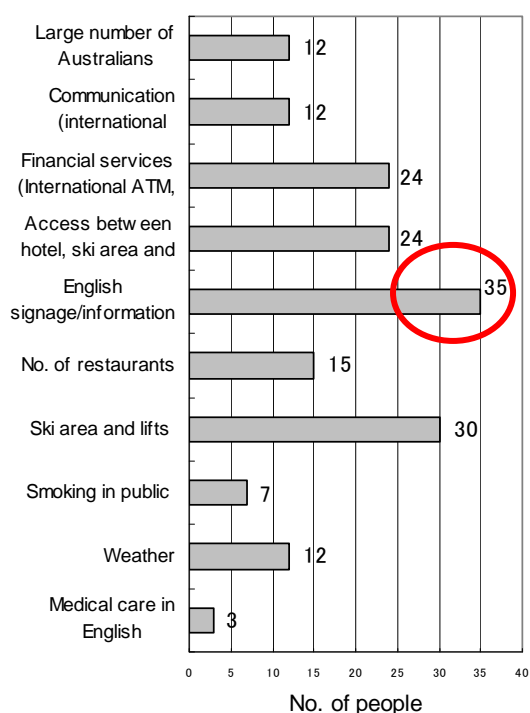


Figure 5. Items reported as inconvenient

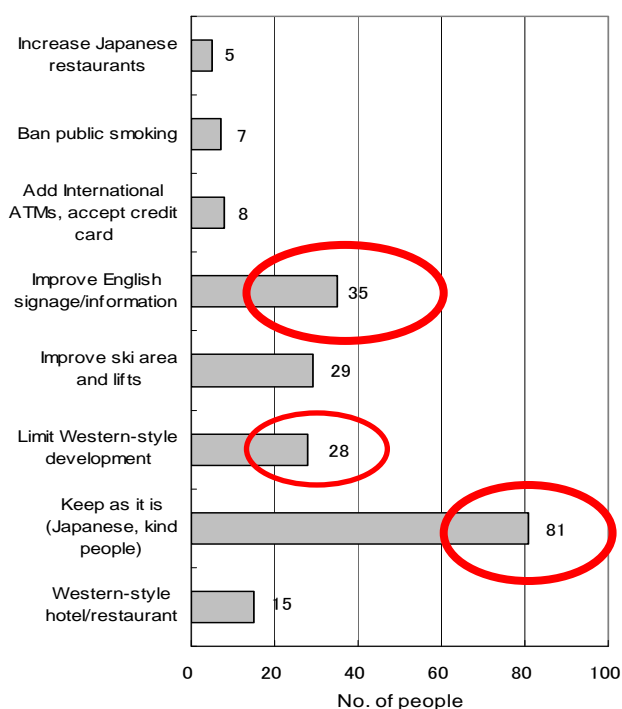


Figure 6. Suggestions for Niseko

4.2 Dissatisfaction, unsatisfaction and attractive quality items

Lack of satisfaction can be major (dissatisfaction) or minor (unsatisfaction). An item that a respondent reports as being both inconvenient and needing improvement is referred to as a “dissatisfaction item”: The person is unhappy enough to suggest a change. In contrast, an item that a respondent reports as being inconvenient but acceptable without change is referred to as an “unsatisfaction item.” An item that a respondent does not report as inconvenient but does report as needing improvement is referred to as an “attractive item.” Achieving satisfaction regarding “attractive items” increases Niseko’s appeal to respondents who hold such an item to be attractive. These relationships are shown in Table 2. We call this “analysis of dissatisfaction-

unsatisfaction-attractive quality items.”

Table 1. Combinations of inconvenience and suggestions

Item	No. of persons reporting it inconvenient	No. of persons suggesting improvement	Criteria
Medical care in English	3		Unsatisfaction item
Access between ski area, hotel, downtown	24		Unsatisfaction item
Communication (international telephones, Internet)	12		Unsatisfaction item
Weather	12		Unsatisfaction item
High number of Australians	12		Unsatisfaction item
Ski area and lifts	30	29	Dissatisfaction item / unsatisfaction item
Restaurants	15	10	Dissatisfaction item / unsatisfaction item
Banking (International ATMs, credit cards)	24	8	Dissatisfaction item / unsatisfaction item
Language	35	35	Dissatisfaction item
Lack of non-smoking facilities	7	7	Dissatisfaction item
Keep as it is		109	Attractive item
Western-style hotels		10	Attractive item

Table 2. Criteria for dissatisfaction-unsatisfaction-attractive quality items

Inconvenient?	Improvement suggested?	Respondent's opinion	Criteria
Y	Y	Inconvenient and should be improved.	Dissatisfaction item
Y	N	Inconvenient, but can be put up with. Happy if improved.	Unsatisfaction item
N	Y	Not inconvenient, but happy if satisfied.	Attractive item

4.3 Causes of discrepancy

In the survey on the importance of 13 items, 68.8% of respondents reported “language” as being largely or completely unimportant. Because English is a global language and information or signs in English are provided at most tourist destinations around the world, language tends not to be selection criteria for English speakers: It is taken for granted. Such items tend to be ranked as having low importance because users do not recognize their importance under normal circumstances. Despite that ranking, failure to achieve satisfaction on these items can greatly frustrate respondents. In fact, overseas visitors to Niseko find little English information or signage. Lack of weather information can be very dangerous in ski areas. Therefore, many respondents found lack of English signs and information to be very inconvenient and frustrating, and they requested this item's improvement: They were very dissatisfied with it.

Niseko Hirafu is a rural Japanese village. Because respondents understand the rural situation in which English signage and information provision is provided but not sufficient, their evaluation of language and signage is “neither good nor bad.” Consequently, CS Portfolio shows “language” improvement as unnecessary. However, even though they understand the situation, the insufficiency of English signage and information provision causes strong frustration. This cannot be properly addressed by CS Portfolio Analysis. In addition, CS Portfolio Analysis can indicate needs for improvement but cannot indicate a need for something to remain unchanged.

Figure 7 shows dissatisfaction, unsatisfaction and attractive quality items. We find that “language” has great importance and requires urgent improvement. The request to keep the resort as it is was made by over 40% of respondents. These tourist wishes cannot be clarified by CS Portfolio Analysis. If one relies exclusively on CS Portfolio, one risks misreading tourist needs.

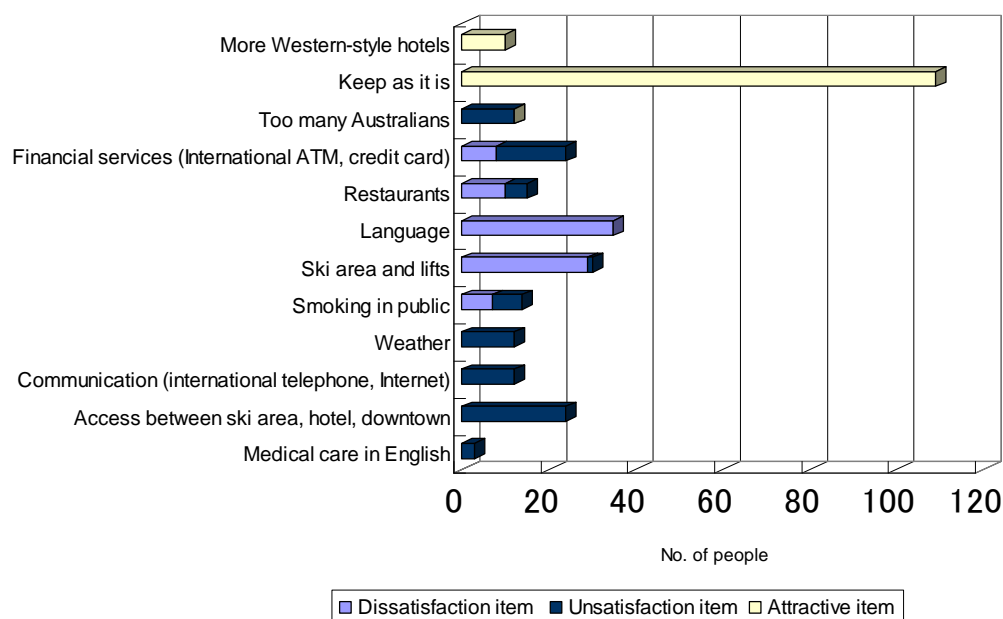


Figure 7. Dissatisfaction-unsatisfaction-attractive quality items (No. of people)

5. Conclusion

Regional tourism policy needs to be based on an accurate understanding of user needs. This study demonstrated discrepancies in respondents’ opinion between CS Portfolio Analysis and what we have named “analysis of dissatisfaction-unsatisfaction-attractive quality items,” using the questionnaire survey results on the Niseko Hirafu ski resort in Hokkaido (Japan).

In this study we found that CS Portfolio Analysis alone cannot properly address

user needs. Some items that are taken for granted tend to be ranked as having low importance. Consequently CS Portfolio Analysis suggests that their improvements are unnecessary. However, users expect a certain level of service for such items, and failure to comply with such “unrecognized expectations” results in great dissatisfaction.

In our survey “language” was an example of a taken-for-granted item. Our “analysis of dissatisfaction-unsatisfaction-attractive quality items” found that insufficient language-related services caused inconvenience and prompted suggestions that this item be improved. However, CS Portfolio Analysis gave a controversial suggestion: “Language” was an item that does not require any improvement.

CS Portfolio Analysis can indicate needs for improvement but cannot indicate a need for something to remain unchanged. In our survey, the response of “keep as it is” shows a desire that Niseko Hirafu remain a rural Japanese ski resort where the snow is superb, overseas visitors can enjoy reasonably priced local cuisine and the people are extremely kind. The response was given by over 40% of respondents. This should be seriously considered for the tourism development, because it suggests a high possibility that what locals consider to be improvements may actually make Niseko *less* attractive to overseas visitors.

Toward properly identifying issues regarded as important by visitors, surveys and analysis on “dissatisfaction-unsatisfaction-attractive” quality items can be a useful addition to CS Portfolio Analysis.

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