Skiers' and Snowboarders' Perceptions of the Quality of a Ski Resort in Japan: An Application of Importance Performance Analysis and Recreation Specialization.

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Abstract

Identifying customers' perceptions of the strengths and weaknesses of a particular service is an important step in the process of providing good service quality. This insight will allow managers to prioritize and allocate resources necessary for continued success or remediation. The purpose of this research was to identify skiers' and snowboarders' perceptions of ski resort quality in Hakuba, Japan.

Since the early 1990s there has been a steady decline in visitation at Japanese ski resorts. The reduction in numbers has been attributed to mostly an aging ski population and an unstable economy over recent years. As a result, many of Japan's ski resorts have closed, and the ones that have managed to stay in business are looking for ways to maintain or increase participation rates. One way to improve business is to better understand the current clients' opinions on service quality. This was done by using a survey to undertake an importance performance measurement.

Heterogeneity of the sample was taken into account by segmenting skiers and snowboarders by levels of recreation specialization. Specialization was used as it has demonstrated empirically to be a key variable which affects preferences and levels of satisfaction in recreational activities.

Surveys were distributed at the Happo-One ski resort in Hakuba, Japan, asking participants to rank various attributes (services and infrastructure) according to perceptions of importance and satisfaction with company performance in this area. Data were then analysed using the importance-performance analysis (IPA). The respondents were divided into specialization groups using a cluster analysis method. The cluster analysis was preferred over an additive approach, as it accounts the unique contribution of different dimensions.

The results show that Happo-One is predominantly a skier resort with a smaller proportion of mostly "low" specialized snowboarders. The use of the IPA was an effective method to identify the resort's strengths and weaknesses. Overall, the resort performed the best in the area of lessons, and results indicated that priorities for change included restaurants, slopes services and slope characteristics. The areas of accommodations, equipment rentals, shops, and tourist information services were all considered areas of low priority for attention.

While there were some similarities between the skier and snowboarder results, more of the attributes for the snowboarders were located below the acceptable level of satisfaction with performance. Compared to the skier group, more issues need to be addressed for the snowboarders, in order to increase satisfaction. Understanding of data was enhanced by segmenting skiers and snowboarders by levels of specialization. Respondents who were lower in specialization were less satisfied overall, indicating Happo-One is more conducive for higher specialized participants.

This research demonstrated that skiers and snowboarders have different requirements that should be taken into account by managers of ski resorts. Furthermore, segmenting by recreation specialization was found to be a useful strategy in understanding the differing perceptions within both skier and snowboarder groups. This study showed that IPA is an effective and efficient approach to highlight the strengths and weaknesses of ski resorts and in prioritising areas of needed further research.

KEYWORDS: Recreation Specialization, Importance-Performance Analysis, Ski Resort, Skier/Snowboarder Differences, Segmentation, Japan

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1.0 Introduction

1.1 Overview

Decreased visitation, by winter activity participants, has become an increasing issue at

Japanese ski resorts over the last 15 years. The Japan Productivity Centre for Socio-

Economic Development (JPC-SED) publishes an annual report on Japanese recreation and

leisure trends entitled the *White Paper on Leisure*. The most recent report (JPC-SED, 2006)

indicated that the Japanese ski industry has experienced a prolonged decline since the early

1990s. In 1993, visitation at ski resorts in Japan peaked at approximately 18 million visitors,

and in 2005 this number had been reduced to only 12.3 million. While overall visitor

numbers are down at ski resorts, an emerging snowboard market grew throughout the 1990s

until it peaked in 2002 (approximately 42% of ski resort visitors), however growth in this

sport has remained stagnant since 2001 (See Figure 1.1).

Various empirical studies have attributed the declining numbers at Japanese ski resorts

to a variety of environmental factors including snow quality and air temperature (e.g.,

Fukushima, Kureha, Ozaki, Fujimori, & Harasawa, 2002). Others, such as The *White Paper*

on Leisure (JPC-SED, 2006) and Kureha (2002), have suggested the lacklustre performance

of the Japanese economy in recent years and an aging population. Since the 'bubble

economy' burst in the early 1990s, the Japanese are more wary about how they spend their

money (Tourism British Columbia, 2006). Many school groups no longer participate in ski

trips, limiting the exposure of skiing to a younger generation. Additionally, the increase in

the unemployment rate has also limited the participation by younger Japanese (JPC-SED,

2006).
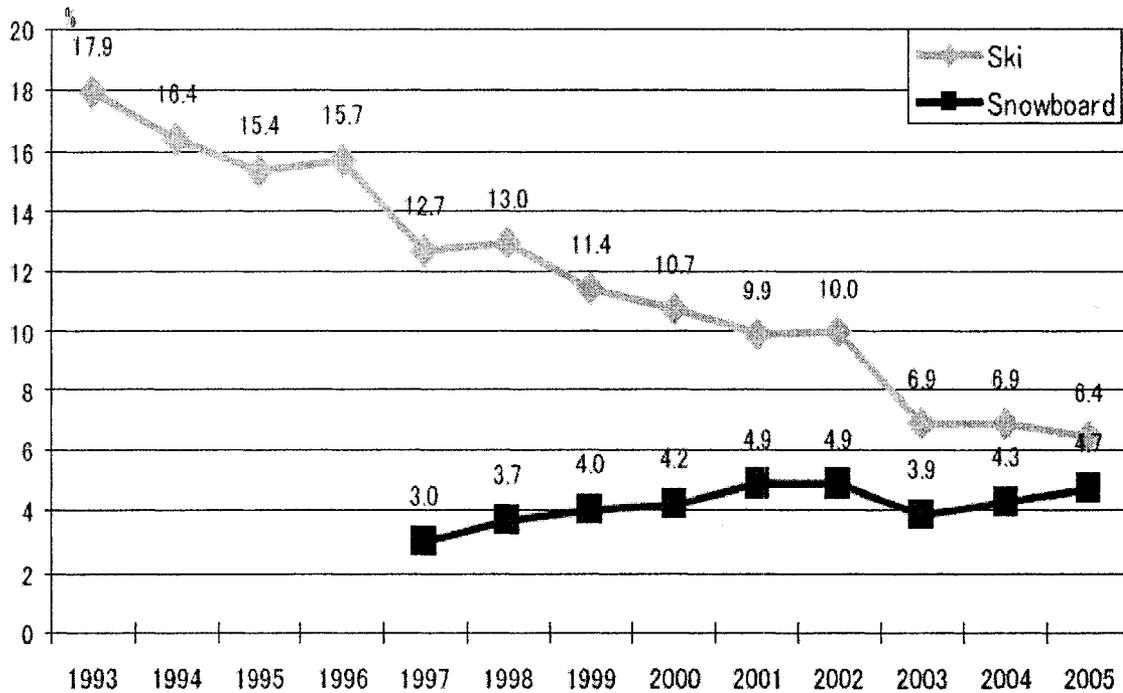
Figure 1.1: *Participation Rate in Skiing and Snowboarding from 1993 to 2005 in Japan (JPC-SED)*

Although ski resorts will not be able to do much about these major environmental and

societal factors, the reduction in actual customers leads inevitably to a more competitive

environment. Hence, ski resort managers need to strive to provide the highest quality of

product and service in order to maintain a share of this ever decreasing market. While

assessing and improving quality of facilities and services may seem like obvious courses of

action, traditional management of Japanese ski resorts has not always been interested in or

needed to be too sensitive to customer needs. Tourism British Columbia (2006, p.24)

suggested that "during the heyday of the Japanese ski market, ski industries were devoted to

making money and did not put any efforts to convey charms of ski experience to Japanese

skiers and many skiers did not continue on skiing." It is important then for ski resort

managers in Japan to adopt a new approach and become more sensitive to user needs by

identifying and prioritizing areas of the resort which need improvements. Determining

which attributes of the resort are perceived by customers to be deficient and which of the attributes are strengths would be a useful first step in this process.

1.2 The Problem

Determining the level of service quality at ski resorts is considered an important step in the process of long-term economic sustainability (Gilbert, Manning, & Ormiston, 1998; Thapa, 2001; Van Peer, 2003). Van Peer (2003) suggests that in order for ski resorts to maintain their market share, managers must develop effective marketing tools based on the specific needs of their clientele. This research will assist managers of ski resorts by informing them about skier and snowboarder perceptions of importance and satisfaction with Happo-One's performance concerning various attributes of the resort. In doing so, various strengths will be identified and deficiencies revealed, so that that managers can assess and prioritize areas for improvement in addition to maintaining key areas of success.

One tool commonly used to identify deficiencies in tourism and recreational services is the importance-performance analysis (IPA), developed by Martilla and James (1977). The IPA has been used to determine customers' satisfaction with the performance of companies or organizations in the delivery of services and facilities and the relative importance of the specific attributes to the consumer. However, one of the issues that has arisen in many of the applications of the IPA is the failure to disaggregate consumers into groups or segments based on industry relevant characteristics. The common recommendation amongst researchers is that future applications of IPA must incorporate segmentation into the analysis (e.g., Bruyere, Rodriguez, & Vaske, 1992; Oh, 2001; Wade & Eagles, 2003). Specifically, the applications of IPA within the context of the ski industry have yet to incorporate segmentation into the analyses as recommended by Hudson & Shephard (1998) and Uysal et

al., (1991). The result of coupling IPA with segmentation is likely to provide a more

informative assessment across a wide range of groups.

Variables used as a means of segmenting the skiers and snowboarders at ski resorts

should be determined by their ability to represent the diversity which exists among

recreationists within the same activity. Recreations specialization is a construct which is

seen by many outdoor recreation researchers as being especially useful in distinguishing sub-

groups within the same activity (e.g., Bryan, 1977; Kuentzel & McDonald, 1992; McIntyre &

Pigram, 1992; Scott & Shafer, 2001). These same studies have shown that there is a

correlation between levels of specialization and a variety of preferences of recreationists.

1.3 Importance of the Research

This research will benefit the academic community by extending the knowledge on

recreation specialization and importance performance analysis. This research will provide

insight on how recreation specialization influences skiers' and snowboarders' perceptions of

the quality of products and services offered by a ski resort. The study also breaks new

ground in applying IPA and customer segmentation (based on specialization) for the first

time within a ski resort.

Additionally, this research will benefit resort managers in Japan and internationally and

more directly those who manage the specific ski area studied (Happo-One, Hakuba, Japan)

by providing relevant information on ski resort visitors' preferences. Given the challenges

facing the ski industry in Japan, managers will benefit from the knowledge of how well they

are providing their services. This study will assist managers by identifying market segments

which vary in the importance attributed to specific services or facilities and provide insights

into satisfaction with their performance. The identification of these deficiencies will assist

managers by enabling them to target specific areas for improvement, prioritise expenditures, and to focus more attention on the needs of their customers.

1.4 Purpose Statement

The purpose of this study will be to segment users of Happo-One ski resort in Japan by their sport (skiing or snowboarding) and by their level of recreation specialization within each sport. Specialization is used because it clarifies which recreationist within each sporting group needs to be targeted, thus further informing management. These segments will then be used to explore customers' perceptions of the quality of delivery of facilities and services in the resort.

1.5 Definitions

Recreation Specialization: is a continuum from general interest and low involvement in an activity to specialized interest and high involvement. Each level of specialization carries distinctive behaviours and orientations (Bryan, 1977).

Behavioral Dimension: is a dimension of recreation specialization which measures the frequency and intensity of an activity (McIntyre & Pigram, 1993).

Cognitive Dimension: is a dimension of recreation specialization which measures skills and knowledge and setting attributes (McIntyre & Pigram, 1993).

Affective Dimension (Psychological): is a dimension of recreation specialization which measures 'enduring involvement' (self-expression, attraction and centrality to lifestyle; McIntyre & Pigram, 1993).

Market Segmentation: is a fundamental practice in marketing research, which involves the process of dissecting markets into smaller subgroups that share common characteristics (Wade & Eagles, 2003).

Importance-Performance Analysis (IPA): is an indicator of service quality which shows the relative importance of various attributes, and the performance of the firm, product or destination in providing these attributes (Hudson & Shephard, 1998).

Attribute: Individual components of a target product which considers not only the characteristics of the firm's product or service but also the market demands shared by competing companies (Oh, 2001).

Importance: is the worth of an attribute as perceived by the customer (Guadagnolo, 1985).

Performance: A measure of a customers satisfaction with the provision of various attributes (Burns, Graefe & Absher, 2003).

2.0 Literature Review

2.1 Overview

Van Peer (2003) suggested that in order for ski resorts to maintain their market share,

managers must diversify their products and develop effective marketing tools. This

suggestion is warranted, however, it assumes that managers have an understanding of the

needs of their customers. To efficiently develop marketing strategies and to provide

appropriate services and products, managers must initially determine the desires of their

customers.

In recent years, the ski industry has been faced with many new challenges as the use of

resorts extends beyond skiing to include other sports such as snowboarding (Thapa, 2001;

Van Peer, 2003). Recent studies (Lewis & Wild, 1995; Tuppen, 200; Van Peer, 2003)

indicate that the emphasis of ski resorts should be to use new technologies and to diversify

products and services in order to meet the demands of a changing and increasingly diverse

market. One method of recognizing differences is to segment the customers based on similar

characteristics.

It has been argued that in order to offer the most diverse and the highest quality of

service, ski resort managers need to focus on market segmentation (Hudson & Shephard,

1998; Van Peer, 2003). Gilbert et al., (1998) proposed that ski resorts should focus

marketing efforts on such items as length of lift lines, quality of food, transportation issues,

snow quality, terrain, and employee attitude. It follows, that in order to ensure economic

sustainability, it is important to understand how customers' perceptions of quality for these

various resort attributes varies among different market segments (e.g., snowboarders and

skiers).

This chapter assesses the current state of literature for successful delivery of ski resort products and services.   The paradigm of "Importance-Performance Analysis" (IPA) will be reviewed as an effective tool for measuring and monitoring service quality. Subsequently, this chapter will review literature associated with segmenting ski resort customers by sport and level of recreation specialization. It will be shown that sport and level of specialization influence customer preferences, attitudes, and behaviours. By segmenting ski resort users and applying the IPA, ski resort managers will be better equipped to address marketing concerns and will be able to make the appropriate changes to better meet the needs of customers.

2.2 Importance-Performance Analysis

2.2.1: Development and Implementation of the IPA

The importance-performance paradigm was introduced more than thirty years ago (Martilla & James, 1977) as a relatively quick and easy way for managers to develop marketing strategies.   From a theoretical perspective, some debate exists in the literature on exactly what the IPA is measuring. While some researchers propose that the IPA measures satisfaction (e.g. Guadagnolo, 1985; Tarrant & Smith, 2002), it has also been suggested that the IPA more appropriately measures service quality (e.g. Hamilton, Crompton & More, 1991; Hudson & Shephard, 1998). In his review on IPA literature, Oh (2001) explains that in many of the studies there is confusion between the terms importance and expectation. In some cases the two terms are used interchangeably (e.g. Hollenhorst, Olson & Fortney, 2002). The end result of equating expectation with importance is that the IPA is seen as measuring satisfaction. The reason for this is that a common method of assessing customer satisfaction is to look at the gap which exists between individual expectation for a product or service and

the perception of performance for the same product or service (Oliver, 1980). Ryan (1999)

suggests that the difference between expectation and importance is that while the former

measures a tolerated outcome, importance is actually a measure of the outcome that an

individual desires. Hamilton et al. (1991) state that service quality should be a measure of

desired outcomes and the perceived importance. In this study, the IPA is taken to be an

indicator of service quality, defined by perceptions of importance (desired outcome) and

satisfaction with performance.

The first dimension of the IPA is a measurement of customer satisfaction with the

performance on a particular service or product. The second dimension is a measurement of

the customer's perception of the relative importance for the same service or product. The

result of these two measurements plot points on a two-dimensional action chart which is then

divided into four quadrants, each with its own management implication (see Figure 2.1).

Importance

"Concentrate Here"   "Keep Up Good Work"

Performance

"Low Priority"   "Possible Overkill"
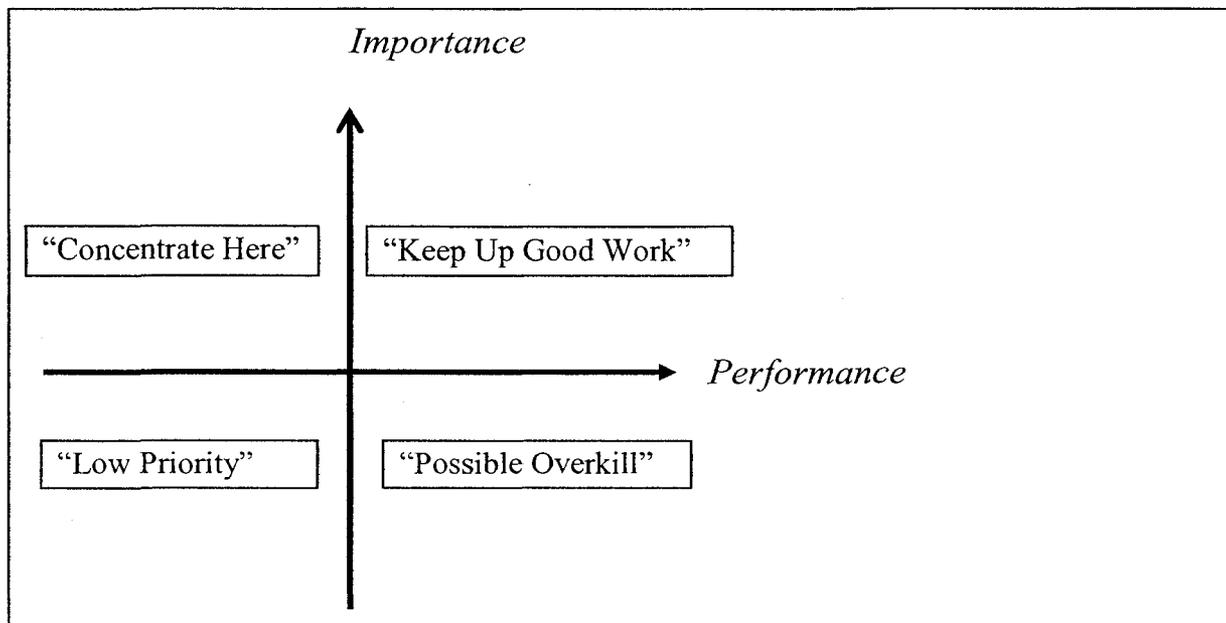
Figure 2.1: *Importance-Performance Action Chart*

The interpretation of the action chart with its four management implications is relatively straight forward. In the quadrant where importance and satisfaction with performance are both high, the label 'keep up good work' is given. The implication here is that managers do not need to worry about making any changes. If the customer rates both importance and satisfaction with performance low, the label 'low priority' is given. The implications for management are such that changes can be made to improve quality; however, there is no sense of urgency because the customer does not deem it an important attribute. If the importance is low but the satisfaction with performance is high, then the label given is 'possible overkill'. Management may be focusing too much in this area when there is no need to make changes. Finally, and arguably most important, is the quadrant entitled 'concentrate here'. The customer is not satisfied with the performance, yet this attribute is of high importance. Managers should focus their attention here in order to improve quality.

One of the critical issues that the researcher must address when employing the IPA is where to place the cross-hairs. The placement of these intersecting lines, forming the boundaries between quadrants, will have an effect on the interpretation and hence, the management implications for the various attributes. There has been considerable debate among researchers as to what method is most appropriate when making this decision (Oh, 2001). Some researchers have used the actual mean for the scale (e.g., Guadagnolo, 1985), the scalar mean (e.g., Evans & Chon, 1989), and the statistically derived mean (e.g., Fletcher, Kaiser & Groger, 1992). However, most recent studies have opted for arbitrary placement beyond the points of neutrality (e.g., Wade & Eagles, 2003). These studies have used arbitrary placement in order to better reflect the goals of the managers (Oh, 2001). For example, Wade and Eagles (2003) set their cross-hairs at four (out of five) for both

importance and satisfaction to reflect standards of 'extremely important' and 'excellent' performance.

2.2.2: Use of the IPA in a Recreational Context

The IPA has been used in a wide range of contexts over the years: to assess the success of product and service delivery for travel and tourism (e.g., Go & Zhang, 1997; Okata et al., 2007); recreation (e.g., Guadagnolo, 1985; Wade & Eagles, 2003); education (e.g., Alberty & Mihalik, 1989; Kitcharoen, 2004); and healthcare (e.g., Dolinsky, 1991). Recreation and leisure applications of the IPA have been largely concerned with exploring quality of a service rather than tangible products (Oh, 2001). The result has been to measure the customer's perceptions of satisfaction with the performance of delivering a service.

In leisure research, the IPA has been used to determine service quality in a range of contexts. Guadagnolo (1985) was one of the first researchers to apply the IPA in a recreational context. His research was targeted at participants in a ten kilometre race and asked them to evaluate 31 attributes of the race. Other applications of the IPA in a recreational context have been used to determine service quality for rental cabins in state parks (Hollenhorst, Olson, & Fortney, 1992) and to evaluate visitor satisfaction with attributes of outdoor recreation settings (Tarrant & Smith, 1992). These studies concluded that the IPA was an effective tool for managers with limited resources; however, they caution its use a primary tool for developing management strategies.

Tarrant and Smith (1992) attempted to use the IPA in order to provide managers with specific information on which to base their marketing efforts. The surveys in this study were distributed to over 11 000 people in 31 recreational settings, ranging from primitive to developed. What separates this study from traditional IPA applications is that the researchers

modified the framework to include a measure of statistical variance, whereas traditional

models only used the mean score when plotting levels of performance and importance. The

results of this study indicated that the modified IPA was better for smaller samples (less than

four hundred) while the traditional IPA was suited for larger samples.

Another common suggestion made by researchers using the IPA is to couple analysis

with some form of segmentation (e.g., Guadagnolo, 1985; Hollenhorst et al., 1992; Hudson

& Shephard, 1998; Tarrant & Smith, 2002; Uysal et al., 1991). The purpose of segmenting is

to avoid producing results which indicate the needs of an "average user" (Bruyere et al.,

2002). To better understand satisfaction across a wide range of user groups, the

heterogeneity of the population must be taken into consideration.

Bruyere et al. (2002) segmented visitors to a gateway community in Colorado in order

to determine their satisfaction with recreational activities. Researchers divided the sample

into three segments (tourists, seasonal residents and full-time residents). Ultimately,

satisfaction did vary amongst the segments and the researchers suggested that segmentation

is a necessary component of IPA and that the benefits of the IPA included its low cost to

administer, simplicity in interpretation, and effective targeting of management intervention

when combined with segmentation.

Wade and Eagles (2003) applied the IPA to national park visitors in Tanzania and noted

the implications for user displacement. Their consensus was that unless the user groups were

segmented, there was a high chance that the large number of front-country users would skew

the data and misrepresent the needs of backcountry users. By segmenting groups according

to varying geographic regions of the park, the researchers were able to discover the specific

needs of a unique niche of hikers which would have otherwise gone unnoticed in a mass application of the IPA.

The IPA has been used to a limited extent to determine service quality at ski resorts. Hudson and Shephard (1998) implemented the IPA at a major ski resort in Switzerland and Uysal et al. (1991) applied the IPA to a ski resort in North Carolina. While both studies found the IPA an effective tool for measuring service quality, there were limitations to both studies. Specifically, the need to incorporate segmentation was noted as a way to make the results a better reflection of the diverse ski market. The purpose of both studies was to identify the attributes of a specific ski resort and to evaluate them based on the perceptions of the users. Uysal et al. (1991) developed a list of attributes, but it is unclear how these attributes were derived. Hudson and Shephard (1998), on the other hand, indicated the use of focus group discussions and interviews in determining which attributes were to be incorporated into their study. The result of this consultation process was a list of 97 attributes in 12 categories. These researchers noted that a major limitation of their results was that they did not undertake a segmentation study. As discussed previously, lack of segmentation is problematic because there is potential for certain user groups and their specific needs to go unrecognised. Both applications of the IPA at ski resorts included recommendations to apply different segmentation variables such as familiarity with the resort, skill level, gender, age, and activity type.

2.3 Recognizing Skier/Snowboarder Differences

Since the introduction of snowboarding in the late 1970s there has been a rapid increase in the number of participants, making it the sport with the greatest impact on the ski industry (Hudson, 1999). Hudson explained that because of the snowboard boom of the 1990s there

has been a dramatic effect on ski resorts worldwide. Research (Thapa & Graefe, 1999;

Vaske et al., 2000; Vaske, Dyar & Timmons, 2004) explored these effects by analysing the

compatibility of skiers and snowboarders. This was achieved by looking at aspects of the

conflicts which appeared to exist between the two sporting groups. Conclusions generally

indicated that as the skill level of participants increased, so did the perceptions of conflict.

Additionally, there was a higher incidence of 'out-group' than 'in-group' conflicts.

However, these studies were conducted when snowboarding was still in its infancy and

experiencing rapid growth. Since this time, snowboarding's growth has peaked in terms of

numbers and now comprises a considerable portion for the total ski resort market (Hudson,

1999).

In Japan, the growth of snowboarding peaked in 2002 and participation rates remained

static throughout the period of 2002 to 2005 (JPC-SED, 2006). According the Japan

Productivity Centre for Socio-Economic Development (JPC-SED) (2006) publication entitled

The White Paper on Leisure, the most recent known participation rate for skiing and

snowboarding combined is 11.1 per cent of the total Japanese population. Of this group, 58

per cent are skiers and 42 per cent are snowboarders. While snowboarding experienced rapid

growth in participation during the 1990s, there was a drastic reduction in skiing (17.9% in

1993 reduced to 6.4% in 2005). The JPC-SED attributes this decline in participation to an

aging population, declining economic prosperity and decreased opportunities for younger

people.

In addition to a difference in participation rates, the skiers and snowboarders in Japan

are characterized by different demographics. *The White Paper on Leisure* shows that the

mean age of skiers in Japan is 38.8 years for males and 36.7 years for females, whereas

snowboarders are characterized by much younger mean ages (27.4 years and 26.1 years respectively). Considering this large age gap, it is not surprising to find that skiers in Japan have more years of experience (17 years) when compared to snowboarders (5 years). Travel party composition and expenditure on sport are another two areas where skiers and snowboarders in Japan have reported differences. A large proportion of skiers (35.1%) reported participating in their sport with family, whereas only 9.2 per cent of snowboarders reported participation with family. Conversely, a higher per cent of snowboarders (54.5%) than skiers (31.8%) participate with friends. In regards to the amount of money spent annually by skiers and snowboarders in Japan, skiers spend almost a third more ($CAD 714.00) on their sport as compared to snowboarders ($CAD 541.00).

In addition to the differences in characteristics of snowboarders and skiers, there has also been some evidence that the two sports have different requirements. Vaske et al. (2004) attempted to determine the compatibility of skiing and snowboarding by looking at the levels of conflict that arise on the slopes. Results confirmed previous studies (Thapa & Graefe, 1999; Vaske et al., 2000) which indicated that skiers and snowboarders are less tolerant towards recreationists from the other activity than those individuals within their own activity. A recommendation for managers included possible separation of skiers and snowboarders by developing specific trails such as half-pipes (freestyle terrain) for snowboarders. As mentioned previously, there has been massive growth in ski technology leading to the use of half-pipes and terrain parks by both skiers and snowboarders. If skiers and snowboarders do have different requirements, then further research is needed to determine these differences other than simply proposing the development of specific trails for each sport. It is possible that skiers and snowboarders may vary on many other different criteria unrelated to conflict.

For example, given the difference in characteristics between participants in each sport, there may be a need to develop different types of lessons to best meet the needs of each group.

Though snowboarding is still a relatively young sport when compared to skiing, its presence at ski resorts around the world is now well established. Given this situation, ski resort managers today must meet the needs of both skiers and snowboarders if they want to maximize their potential markets. As skiers and snowboarders have different characteristics and requirements, meeting the needs of both requires assessing their needs separately. In addition to the needs of participants varying by sport, it has also been demonstrated empirically that the needs of recreationists vary with level of specialization (e.g., Bryan, 1977; McIntyre & Pigram, 1992; Kerins et al., 2007). While it is useful to segment by sport, this research suggests that it may be more useful to explore differences within individual segments based on level of specialization.

2.4 Recreation Specialization: A Means for Further Segmentation

A common method of determining variation within specific recreational activity groups is by level of recreation specialization. Recreation specialization proposes a process whereby an individual gains experience in an activity with time, which in turn affects other variables such as preferences, motivations, perceptions and attitudes (Bryan, 1977). Initially, the specialization construct was applied by Bryan to trout anglers. The results of his research indicated that as the anglers gained experience in their activity, their behaviour progressed from that of general interest and low involvement to specialized interest and high involvement.

The implications of Bryan's (2000) theory of specialization were reported as being important for recreation managers. It is argued that managers will need to have a variety of

management strategies in order to satisfy the motivations and preferences of different users (Bryan, 2000). Within the field of recreation and leisure, specialization has been applied to diverse activities including white water paddling (e.g. Bricker & Kerstetter, 2000; Kuentzel & McDonald, 1992), hiking (e.g., Shafer & Hammit, 1995; Virden & Schreyer, 1988), angling (e.g., Bryan, 1977; Ditton et al., 2005), camping (McIntyre & Pigram, 1992), rock climbing (Ewert & Hollenhorst, 1994), ultimate Frisbee (Kerins et al, 2007), and hunting (e.g., Miller & Graefe, 2000, Needham et al, 2007).

The relationship between specialization and a variety of dependent variables related to individual participation has been thoroughly documented in numerous empirical studies. Specifically, it has been shown that specialization affects recreationists' motivations (e.g., Kuentzel & McDonald, 1992; Schreyer & Lime, 1984), perceptions of crowding (e.g., Hammit et al., 1984; Kuentzel & McDonald, 1992), physical and social setting preferences (e.g., Ditton et al, 1992; Ewert & Hollenhorst, 1994; Virden & Schreyer, 1988), perceptions of conflict (e.g., Schreyer et al., 1984; Vaske et al., 2004), attitudes towards management (e.g., Kuentzel & McDonald, 1992; McIntyre & Pigram,1992; Virden & Schreyer, 1988), place attachment (Bricker & Kerstetter, 2000), equipment preferences (Ewert & Hollenhorst, 1994), and preferences for activity type (Donnelly et al., 1986).

The specialization continuum therefore provides an appropriate method of segmenting the users of a recreational service; in this case a ski resort. To give an example, it has been suggested (Ewert & Hollenhorst, 1994) that a highly specialized rock climber has a higher chance of owning their own equipment compared to a newcomer to the sport. If this conclusion is applicable to other recreational activities, then the relative importance of rental facilities at a ski resort would differ among various skiers or snowboarders, depending on

their level of specialization. One of the issues facing researchers however, is how to measure

an individual's level of specialization.

2.4.1: Indicators of Specialization

Empirically, the task of operationalising the concept of recreation specialization has been

accomplished using a variety of indicators. Since recreation specialization is a

multidimensional construct, the indicators selected by researchers can often be grouped into

similar dimensions. Early studies in the area of specialization often determined an

individual's level of specialization as a combination of behavioural and cognitive indicators

(e.g., Bryan, 1977; Donnelly et al., 1986). Donnelly et al. (1986), for example, determined a

boater's level of specialization by measuring an individual's skill level (cognitive) and

his/her prior experience with the activity (behavioural).

The behavioral dimension has been measured using many different variables. An

indicator of behaviour can include frequency of participation (Ditton et al., 1992), frequency

of site visits (Bricker & Kerstetter, 2000), variety of different sites visited (Kuentzel &

McDonald, 1992) and years of experience (McIntyre & Pigram, 1992). Furthermore, many

researchers employ multiple indicators as part of the behavioral dimension. While there is no

general consensus about which behavioral indicators are more desirable, there does appear to

be agreement that it is better to use more than one (Scott & Shafer, 2001).

The cognitive dimension of specialization is usually measured by assessing an

individual's perception of their technical ability in the activity. Self-reported skill has been

used by many researchers as a variable for determining levels of specialization (Bricker &

Kerstetter, 2000; Donnelly et al., 1986; Kerins et al., 2007; Kuentzel & McDonald, 1992;

Scott & Thigpen, 2003). Kerins et al. (2007) also propose that the skill dimension should

include a measure of the individual's desire to improve her skills. Other measures for the cognitive dimension can include acquired knowledge for the activity and setting attributes (McIntyre & Pigram, 1992).

McIntyre (1989) added to the two-dimensional construct of specialization by proposing a psychological dimension called the affective system. The affective system is based on previous work by Little (1976) and considers specialization as three interacting dimensions where growth in one area often reinforces another, yet not necessarily in a linear fashion. McIntyre and Pigram (1992) called this affective system 'enduring involvement' which included subsets of self-expression, attraction (enjoyment and importance) and centrality of activity to an individual's lifestyle.

Scott and Shafer (2001) used the term 'commitment process' rather than enduring involvement to indicate the psychological dimension of specialization. They proposed that commitment refers to the kinds of personal and behavioral commitments that recreationists develop over time. Commitment or enduring involvement are commonly used interchangeably by researchers.

The practice of using three dimensions to measure recreation specialization has now become commonplace in specialization research (Bricker & Kerstetter, 2000; Kerins et al., 2007; McIntyre & Pigram, 1992; Scott & Thigpen, 2003). Whichever indicators are used by a researcher to determine specialization, it is usual to include at least one from each dimension (cognitive, behavioral and psychological).

2.4.2: Means of Classifying Specialization Groups

Since a variety of indicators have generally been used to measure specialization, the issue about how to best combine the various indicators to create a single measure is often debated.

Most commonly, an additive index has been used to measure the degree to which an individual is specialized in any particular activity. The additive index is then used to plot individual scores along a continuum (e.g., Wellman et al., 1982) or to specify discreet levels such as low, medium or high specialization (e.g., Donnelly et al., 1986). One problem with this approach is that it tends to treat each dimension as having equal influence; this is not always the case. For example, a skier may have a high degree of skill from many years of participation, but due to an injury or other obligations is only able to participate a couple times a year. Conversely, a beginner new to skiing with a low level of skill may frequent a resort multiple times every week.

Kuentzel and McDonald (1992) factor analyzed eleven specialization variables, which resulted in three dimensions: past experience, lifestyle, and commitment. These dimensions were then submitted to correlation tests and the results indicated that each dimension relates differently to motivation, perceptions of crowding and preferences for management. The results for this study support the concept that it is preferable to consider the unique contribution of different dimensions (behavioral, cognitive and psychological) when defining recreation specialization.

An alternative to the additive index is the use of a cluster analysis with the specialization variables in order to classify recreationists into discreet groups. Some researchers (Chipman & Helfrich, 1988; McFarlane, 1996; McIntyre & Pigram, 1992; Needham et al., 2007; Oh et al., 2005; Scott & Thigpen, 2003) have opted to use cluster analysis because it does not assume that the specialization dimensions are equally significant and correlated. Researchers using a cluster analysis assume its superiority to an additive

index on the basis that recreationists may share some of the same qualities in one dimension, and yet have a much different overall level of specialization.

2.5 Research Hypotheses

It was shown that the use of the importance-performance analysis to identify areas of improvement for a recreational service provider can be a valuable tool for ski resort managers. However, it is suggested that the use of the IPA to highlight deficiencies in service and infrastructure is best performed when coupled with some form of segmentation of the customer base.

Initial segmentation of ski resort customers by sport (skiers and snowboarders) is a prudent place to begin, as it has been demonstrated that skiers and snowboarders have different characteristics. Additionally, there is some empirical research which suggests skier and snowboarders may have different requirements altogether. More research is needed to better understand what these requirements are and in what way and to what extent they differ.

Subsequent segmentation by means of recreation specialization is beneficial, as this construct has demonstrated effectiveness in the past in distinguishing between recreationists within the same sport. A three dimensional recreation specialization construct is also desirable as it takes into account the behavioral, cognitive and psychological dimensions of specialization.

Based on the literature presented, the following hypotheses are proposed for the research study at Happo-One resort in Hakuba, Japan:

1. The various specialization and sporting segments (skiers and snowboarders) will demonstrate differences in socio-demographic characteristics.

2. The participants' perceptions of importance and satisfaction with performance concerning the various attributes (services and facilities) will vary with the sport (skiing and snowboarding) in which they participate and their level of specialization.

3.0 Methodology

3.1 Context for Study

This research was conducted at the Happo-One ski resort in Hakuba, Japan. The village of

Hakuba is situated in the centre of the Japanese Alps, in the prefecture of Nagano (See

Figures 3.1 and 3.2). Hakuba is one of the most popular ski regions in Japan and is home to

ten ski resorts spread out over a 30 kilometre stretch of alpine scenery (Snow Japan, 2008).

Nagano received worldwide attention in 1998 when it hosted the Winter Olympics.

During these games, Hakuba was home to three major events: Men's Alpine Skiing

(Downhill and Super GS), Ski Jumping and the Nordic Combined (Snow Japan, 2008).

Happo-One is the largest ski resort in Hakuba and is open from December to May for the ski

season. There are 32 ski lifts which service 1071 metres of vertical ski terrain (30% beginner,

50% intermediate, 20% advanced).
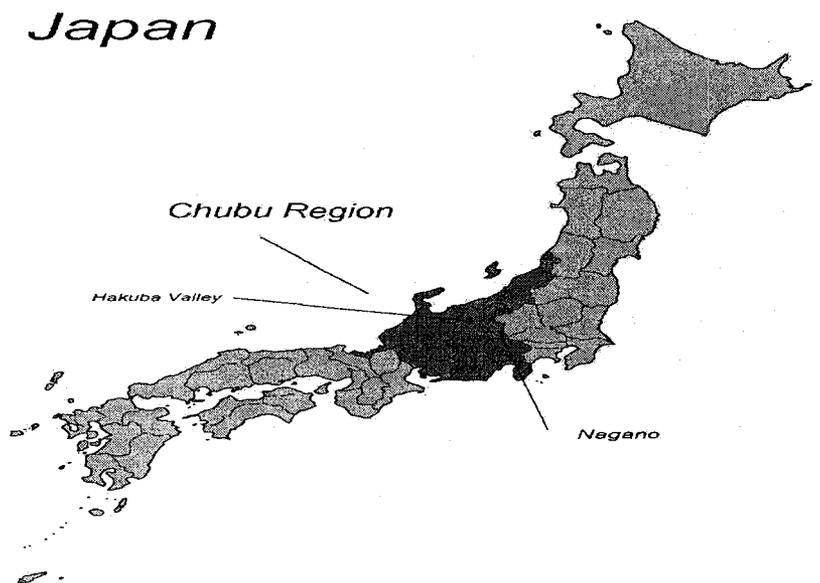
Figure 3.1: *Map of Japan Highlighting Nagano and the Hakuba Valley*
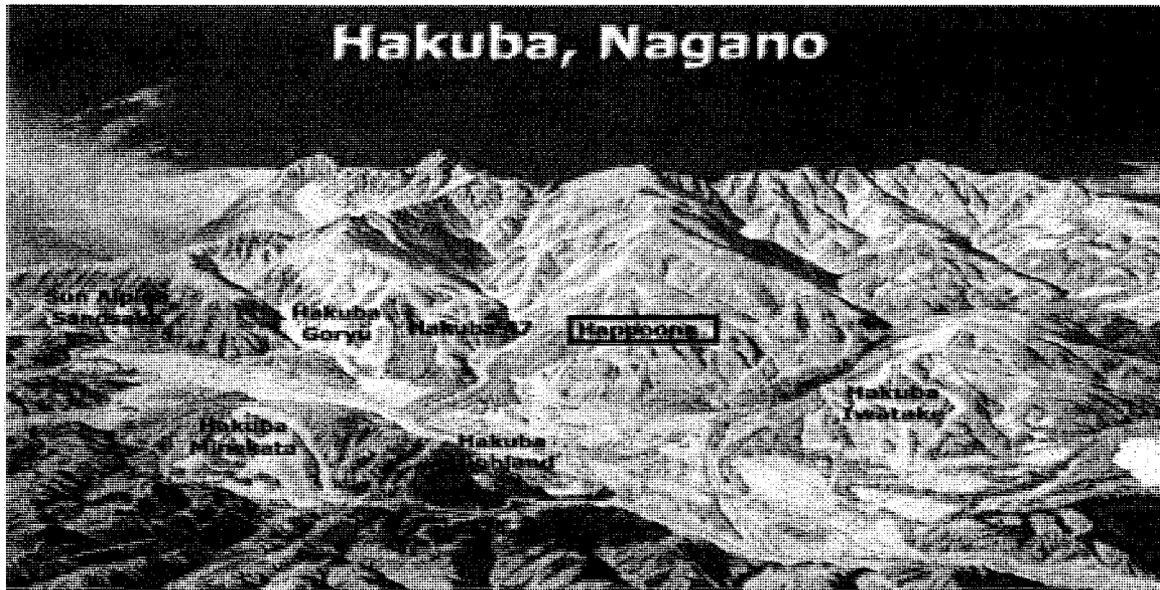
Figure 3.2: *Hakuba Japan*

3.2 Survey Design

The intent of this research was to identify strengths and deficiencies in ski resort services and

facilities as perceived by various user groups defined on the basis of their sport and level of

specialization. In order to identify these deficiencies, an "importance-performance analysis"

(IPA) was included as part of a survey; the standard method for implementing IPA studies.

Data collection for this instrument requires implementing surveys with predetermined

questions regarding the importance of and the satisfaction with the performance of different

facilities and services.

The results of the IPA were divided into two sections: segmented by sport and

segmented by level of individual specialization. The non-segmented analysis included all the

participants of the survey, while the segmented analysis was achieved initially by splitting

the sample into skiers and snowboarders, and then by their degree of specialization, using a

cluster analysis approach.

The dates of data collection occurred between the months of December 2006 and February 2007. This time frame included the shoulder season prior to the Japanese New Year holiday and included the peak use months of January and part of February.

The surveys were in the form of self-administered questionnaires, which were distributed by the researcher. The surveys took the participants approximately fifteen minutes to complete and were limited to participants over the age of 18. The purpose for using self-administered questionnaires was that it was the most efficient method for gathering a large number of participants, while ensuring a sample which is representative of the population.

3.3 Population and Sample

The population sampled were the users of Happo-One in Hakuba, Japan. The purpose for selecting the Hakuba region was that it is one of the more popular ski regions in Japan (Snow Japan, 2008) and the researcher, having lived there previously, was familiar with the area. However, the results of this research will certainly have relevance to ski resorts throughout Japan and possibly worldwide.

The selection process for sampling followed a stratified random sampling procedure. The purpose for this method was to ensure that the sample was representative of the users of Happo-One. It is desirable that the participants in the sample represent the population in terms of percentage of skiers and snowboarders (approximately 7:3 skier/snowboarder ratio) and gender (approximately 60% male and 40% female) (JPC-SED, 2006).

Sampling procedures were based on two days per week over a seven week period. The purpose for selecting two days was based on the availability of the researcher during this time. The selection of the chosen days to conduct the research was based on a random sampling procedure. Additionally, when selecting the days, weekdays and weekends were

chosen separately, in order to accurately represent the proportions of people visiting the resort on these days.

The next procedure to consider was the location of sampling. Based on the rationale that the most suitable time to approach people is when they are sitting down and have some free time, the researcher decided to select resort restaurants as the place for sampling. Each day chosen during the seven week period was assigned one of four restaurants. Initially, restaurants were chosen randomly and then rotated in a cycle. Within the restaurant, a station was set up near the entrance for the researcher to distribute the surveys. Finally, the researcher approached customers entering the restaurant in timed intervals to ensure consistency. Customers were given free drink coupons for completing the surveys.

3.4 Instrument

The instrument used in this research was a self-administered questionnaire, which was divided into three sections (See Appendix 1). A description of each section is given here, followed by discussion of translation and pilot-testing issues.

The first section of the survey (Section A) asked participants 11 questions regarding participation in their sport. These questions were used to assist the researcher with segmenting the customers on the basis of sport and level of specialization. The questions were created by the researcher and designed to reflect a three dimensional (cognitive, behavioural and psychological) model of recreation specialization.

Section B of the survey was designed to measure the perceived importance and satisfaction with the performance of various facilities and services (attributes) provided by Happo-One. The IPA was used for this section. Facilities and services to be assessed must be selected from a wide variety of possibilities. The attributes which were used in this

survey were selected in two ways. First, attributes for this study were selected from a list of

attributes from a previous study employing the IPA at a ski resort in Switzerland (Hudson &

Shephard, 1998). For the purpose of efficiency (the desired time frame to complete this

survey was fifteen minutes), attributes from Hudson and Shephard's list, which had a mean

'importance' score above the mean score for all of the attributes combined, were selected for

the current study. Additionally, 132 ski resort reviews from Hakuba (Snow Japan, 2006)

were examined by the researcher. From these reviews, additional attributes were determined.

In total there were 58 attributes grouped into nine categories (tourist information services,

accommodation, restaurants and bars, equipment rental shops, lessons, medical services,

shops, slopes, and slope services).

The scales used to measure the attributes of importance and performance were based on

a Likert-type scale ranging from one to seven. The importance scale asked whether the

specific attribute was of importance to the individual, who responded on a 7-point Likert-

type scale (ranging from 1 = of no importance to 7 = extremely important). Similarly, the

satisfaction with performance scale asked the participant to rate how satisfied he/she was

with the performance of a specific attribute on a 7-point Likert-type scale (ranging from 1 =

of no satisfaction to 7 = extremely satisfied). There was a space provided to indicate if the

attribute was not used or if the individual had no opinion.

The final section of the survey (Section C) was used to collect relevant socio-

demographic information. This information was collected for the purpose of potentially

describing the various sport and specialization segments. The benefit of being able to

describe the various segments is that it gives managers specific characteristics of the skiers

and snowboarders (e.g., age, place of residence, income) which can be used for developing

targeted marketing and management strategies. The ten questions which comprise this final section of the survey were developed based on past research for the IPA at ski resorts (Hudson & Shephard, 1998; Uysal et al., 1991). The questions in this section identify gender, age, type of group, nationality, residency status, and income of respondents.

As it was anticipated that the majority of respondents would be from Japan, there was a requirement to translate the survey from English into Japanese. In response to this concern, the survey was reviewed in English for consistency and accuracy by faculty and students familiar with skiing and snowboarding. It was then translated into Japanese (See Appendix 2). A widely accepted method for conducting cross-cultural research is to have instruments back-translated (Lin, Chen, & Chiu, 2005). This involved having the instrument initially translated into Japanese and then having another agency translate the new instrument back to English. The goal was to have the two instruments match. Amendments were made and the process repeated until there was consistency between the original and the back-translated instruments. In this case, back translation was done and only one iteration was necessary.

Finally, the survey was piloted in Japan. There were two ways in which the instrument was piloted. First, Happo-One managers were consulted with the proposed attributes to be included in the survey. After consultation, no amendments were deemed necessary. Secondly, the survey was piloted with volunteer participants to make sure that there was no confusion with the format. The survey was piloted with six volunteers and some minor adjustments were made regarding the instructions for completion.

3.5 Analysis

The nine attribute categories were used as the basis for the initial application of the IPA. For those categories which fell in the "concentrate here" quadrant, subsequent application of the IPA was performed by using the specific attributes within each category. This method of initially considering the categories followed by inspection of the specific attributes within the major categories allowed for a more targeted investigation.

From the mean scores of the attributes, a two-dimensional action grid was created, the satisfaction with performance variable formed the horizontal crosshair and the importance variable formed the vertical crosshair. Crosshair location was determined using the statistically derived mean of all participants. The result is an action grid with four distinct quadrants, each with its own management implication.

Some debate exists where researchers or managers should place the crosshairs of the action grid. Ultimately, the decision is a matter of judgment, reflecting the goals set prior to analysis (Oh, 2001). While traditional placement of the crosshairs occurs at the neutral points of the axis, more recent studies have opted to move the crosshair away from the neutral points on the scale (e.g., Hunt, Scott & Richardson, 2003; Wade & Eagles, 2003). The purpose for crosshair adjustment is two-fold. Placement higher on the horizontal axis (satisfaction with the performance) reflects a higher quality of facilities and services and placement higher on the vertical axis (importance) narrows the priorities that the manager must focus on.

In order to achieve a more objective placement of the crosshairs the values were determined by averaging participant scores of importance and satisfaction with performance. The statistically derived value was used as the point where the crosshair was placed.

Keeping the management's objectives in consideration, further movement of the crosshairs was determined subsequent to initial analysis. In some cases, movement of one or both of the crosshairs was performed in order to capture those attributes falling near the "concentrate here" quadrant and appearing as part of a natural cluster with other attributes.

Three dimensions were used in the development of a specialization variable, which were then used in a cluster analysis to segment into groups. The first dimension (cognitive), made up of one factor, was the skill level of the participant. Respondents self-reported their skill as one of four choices: beginner, intermediate, advanced or expert. The second dimension in the specialization (behavioural) was determined by asking respondents to report how many times on average they participated in their sport annually. The third dimension (psychological) was classified as commitment and was determined by asking respondents how important they considered their involvement: a) in their sport; b) as compared to other sports they participated in; and c) how important it was for them to develop their skills in this sport. All responses were based on one of five choices: not at all important (1), somewhat important (2), important (3), very important (4), and extremely important (5).

3.5.1: Cluster Analysis

A typical method of segmenting in tourism research is the application of a method called cluster analysis, a statistical procedure categorizing cases (respondents) into groups based on specified, shared criteria (Dolnicar, 2002). For the purposes of this study, K-means Cluster Analysis (SPSS 16.0) was chosen as the preferred method to group respondents into specialization categories due to the large number of cases involved (299). This method is a more sophisticated means of determining an individual's level of specialization over the common method of creating an additive index. The criteria used for the cluster analysis were

the five specialization variables of 'sport importance', 'skill', 'sport importance when compared to other sports', 'importance of skill development', and 'frequency of participation' on an annual basis.

3.6 Informed Consent

A cover letter (See Appendix 3), available in both English and Japanese languages (See Appendix 4), was given to the participants prior to distributing the survey. The letter explained all the necessary information regarding participation in the study to enable the individual to make an informed judgement on whether or not to participate.

Additionally, the researcher answered any questions that participants had prior to consent. A consent form (See Appendix 5 & 6) was then distributed to participants 18 years of age and over indicating their full understanding of the requirements of the study, their rights of non-participation and requesting their signed consent to participate in the study

3.7 Anonymity and Confidentiality

Responses to the survey were anonymous and no identifying information was collected. Confidentiality of information was assured in the signed consent form and maintained through the use of statistical presentation of data in the thesis and in publications arising.

4.0 Results

4.1 Survey Sample Characteristics

4.1.1: Sample Characteristics

The total number of respondents in the sample was 299 people. Table 4.1 and 4.2 summarize

the characteristics of the sample.

Table 4.1: *Characteristics of Sample (Frequencies)*

Characteristic	Per cent of Sample	N
Type of Activity		
Skiers	72.2	216
Snowboarders	24.1	72
Both	3.7	11
Skill Level		
Beginner	11.4	34
Intermediate	43.5	130
Advanced	33.1	99
Expert	12	36
Gender		
Male	69.2	207
Female	30.8	92
Sporting Companions		
Tour Group	11.4	34
Family	24.4	73
Friend(s)	49.9	149
Alone	7.4	22
Multiple Answers	6.7	20
Country of Origin		
Japan	95.3	285
Australia	2.7	8
Hong Kong	0.3	1
U.K	0.7	2
Canada	0.7	2
Korea	0.3	1
Annual Income ($CAN)		
0 – 9,000	8.0	24
9,000 – 18,000	9.0	27
18,000 – 27,000	10.7	32
27,000 – 36,000	10.4	31
36,000 – 45,000	12.4	37
More than 45,000	39.5	118

Table 4.2: *Characteristics of Sample (Means)*

Characteristic	Mean	Standard Deviation
Age of Participants	38.6	13.1
Number of Years Participating in Sport	19.0	12.8
Number of Ski Resorts Visited in Last 5 Years	9.2	8.4
Number of Times at Happo-One	30.9	84.7
Number of Times Participating in Sport Annually	13.1	23.3
Annual Expenditure on Equipment ($CAN)	$1,224.00	$1,890.00

Almost three quarters (72%) of the sample participated in skiing. The majority of the remainder was snowboarders (24%) and only five per cent participated in both sports. The majority of participants reported their skill level as being intermediate (43.5%) or advanced (33.1%), while a small percentage were either beginners (11.4%) or experts (12%). The majority of the participants were male (69.2%). The overall mean age was 38.6 years; most respondents were from Japan (95.3%) and were traveling with their friends (49.9%) or family (24.4%). On average, respondents had participated in their sport for 19 years, had made about 31 lifetime visits to Happo-One, and came to the resort about 13 times a year. More than half of the respondents (51.9%) earned over $36,000 CAN annually and the average annual expenditure on equipment was $1,224.00 CAN.

4.1.2: Skier and Snowboarder Sample Characteristics

The total sample size for skiers and snowboarders was 216 and 72 respectively. There are some differences in characteristics between the two activity groups. Table 4.3 and 4.4 summarize the descriptive differences between the samples.

There was a difference between the skiers and snowboarders when comparing the self-reported skill level (chi sqr = 38.09; df = 3; P < 0.001). While skiers were predominantly intermediates or advanced (80.1%), the snowboarders were comprised mostly of beginners or intermediates (82%). Only a small percentage of the snowboarding participants reported that they were either advanced or experts (18%).

Table 4.3: *Characteristics of Sample (Means): Segmented by Sport*

Characteristic	Skier		Snowboarder	
	Per cent of sample	N	Per cent of sample	N
Skill Level				
Beginner	6.5	14	26.4	19
Intermediate	39.4	85	55.6	40
Advanced	40.7	88	11.1	8
Expert	13.4	29	6.9	5
Gender				
Male	70.4	152	62.5	45
Female	29.6	64	37.5	27
Sporting Companions				
Tour Group	9.7	21	12.5	9
Family	30.1	65	9.7	7
Friend(s)	43.9	95	69.4	50
Alone	9.7	21	0	0
Multiple Answers	6.0	13	8.3	6
Country of Origin				
Japan	95.8	207	93.1	67
Australia	2.8	2.8	2.8	2
Hong Kong	0.5	0.5	0	0
U.K	0.5	0.5	1.4	1
Canada	0	0	2.8	2
Korea	0.5	0.5	0	0
Annual Income ($CAD)				
0 – 9,000	6.0	13	15.3	11
9,000 – 18,000	7.4	16	12.5	9
18,000 – 27,000	7.9	17	19.4	14
27,000 – 36,000	9.3	20	15.3	11
36,000 – 45,000	12.0	26	13.9	10
More than 45,000	44.9	97	19.4	14

Table 4.4: *Characteristics of Sample (Frequencies): Segmented by Sport*

Characteristics	Skier		Snowboarder	
	Mean	Standard Deviation	Mean	Standard Deviation
Age of Participants	42.3	12.7	27.1	6.1
Number of Years Participating in Sport	23.1	12.2	6.6	4.3
Number of Ski Resorts Visited in Last 5 Years	9.4	9.1	8.1	5.7
Number of Times at Happo-One	41.2	97.7	3.1	4.1
Number of Times Participating in Sport Annually	14.4	25.8	7.8	11.2
Annual Expenditure on Equipment ($CAD)	$1,341.00	$2,160.00	$819.00	$513.00

When looking at sporting companions of the participants, another difference between the two groups was observed (chi sqr = 24.73; df = 5; P < 0.001). Skiers were characterized as participating in their sport with family (30.1%) more than the snowboarders (9.7%). The

predominant sporting companion for the snowboarding group was friends (69.4%). The

percentage of skiers visiting Happo with friends was much lower (43.9%).

The skiing group was characterised by higher salaries (chi sqr = 23.47; df = 5; P <

0.001) and spending more money on equipment than the snowboarders. While the skiers

reported an average expenditure on equipment of $1,341.00 CAN, the snowboard group

reported an average expenditure of $819.00 CAN.

There was a noticeable difference when comparing the two groups by age and number

of years participating in their sport. The box plots shown in Figure 4.1 illustrate these

differences.
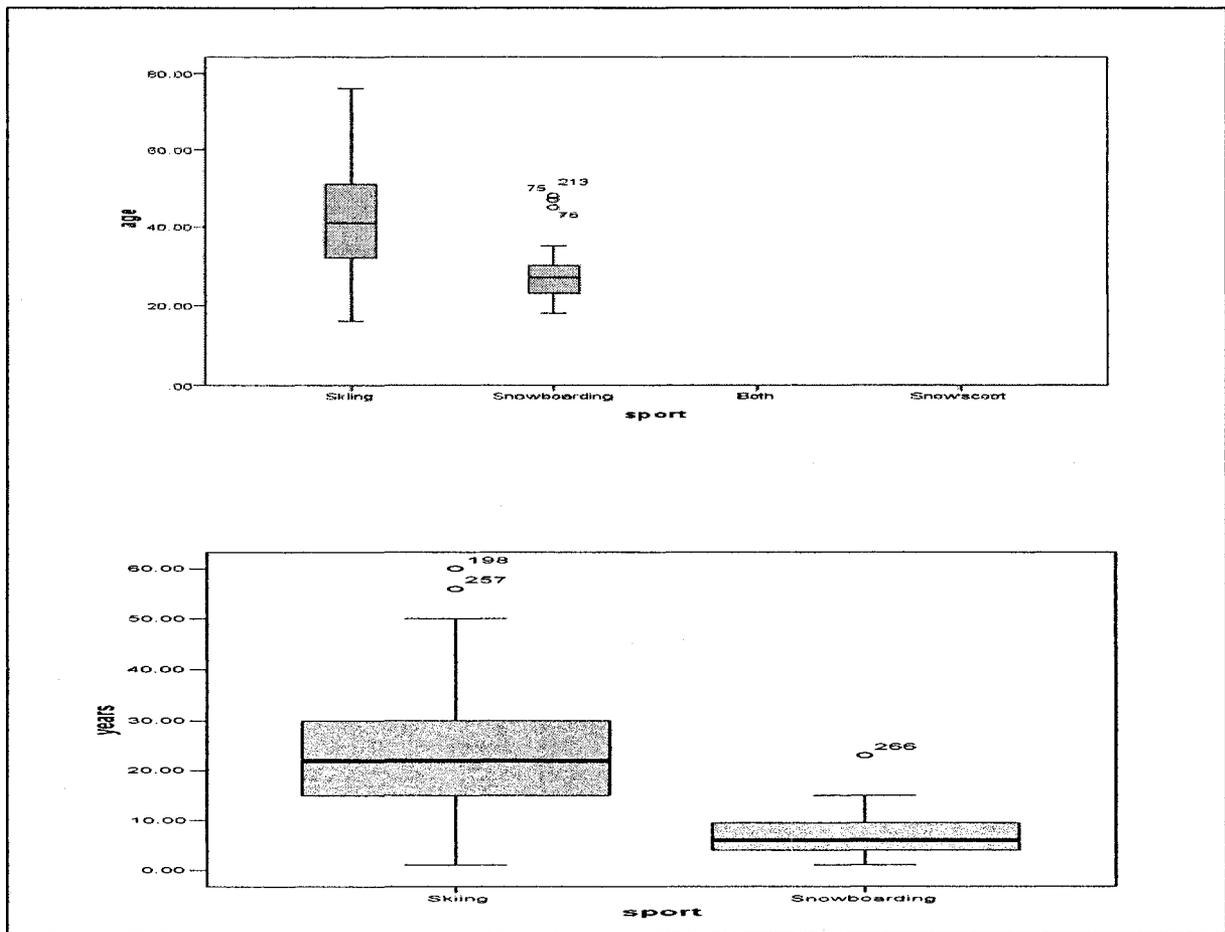
Figure 4.1: *Distribution of Age and Years of Participation by Sport*

The box plots show that discreet groups exist when looking at age and length of participation between the two sporting groups. The skier's average age was 42.3 years, while snowboarders had a mean age of 27.1 years. Skiers reported participating in their sport for an average of 23.1 years, while snowboarders had been participating in their sport for a much shorter time of 6.6 years.

It is evident that there were numerous differences between skiers and snowboarders. There were significant differences in skill level, sporting companions, age, years involved, frequency of participation and annual expenditure. Because of these significant differences subsequent analyses of importance and satisfaction with facilities and services were conducted separately on each sporting group.

4.2 Segmenting by Sport

4.2.1: Skiers' Importance and Satisfaction Ratings with Happo-One Facilities and Services

The number of skiers in the sample of Happo-One users was 216 (72.2%). Examination of perceptions of the facilities and services was done on two levels. Initial analyses were performed on the nine attribute categories, by summarizing all the individual questions within each category, with subsequent analysis performed on those categories falling within the "concentrate here" quadrant. The second level of analysis involved looking at specific attributes within each of these categories. Figure 4.2 shows the results of the IPA analysis for the skier group on the main categories.
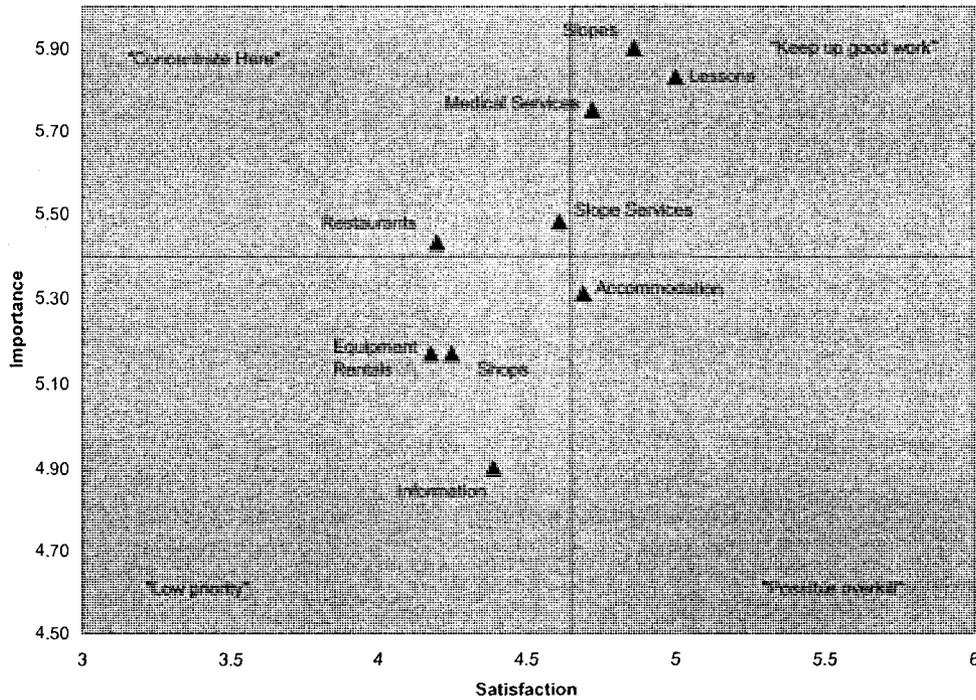
Figure 4.2: *Skier-Segmented Importance-Performance Ratings for the Nine Ski Resort Attribute Categories*

The action grid in Figure 4.2 shows results of the skiers responses based on the nine

attribute categories at Happo-One. Both restaurants and slope services were within the

"concentrate here" quadrant. One category (accommodation) fell within the "possible

overkill" quadrant, while three categories were within the "low priority" area (information,

equipment rentals and shops), and three fell within the "keep up good work" area (medical

services, slopes and lessons).

Upon examination of the restaurant sub-categories (Figure 4.3), it was clear that there

were many areas which participants indicated needed attention. Falling within the

"concentrate here" quadrant were "price", "quality of food", "service", "attitude and

personality of staff", "clean accessible toilets", "availability of seating" and "variety of food".

"English language ability of employees" was the only attribute which was in the "low

priority" quadrant, while "cleanliness of establishment" was the only attribute falling in the "keep up good work" area.

Inspection of the slope services attributes (Figure 4.4) did not yield as many placements within the area of concern. "Piste information" and "availability of toilets" were the two attributes located in the ("concentrate here") quadrant. The "possible overkill" area included the attributes "snow making" and "terrain park". Areas of the slope services that Happo-One performed well on were "grooming services" and "maintenance of lift services". The one attribute falling in the "possible overkill" zone was "attitude and personality of the lift attendants".

Figure 4.3: *Skier-Segmented Importance-Performance Ratings for the Restaurant Attributes*
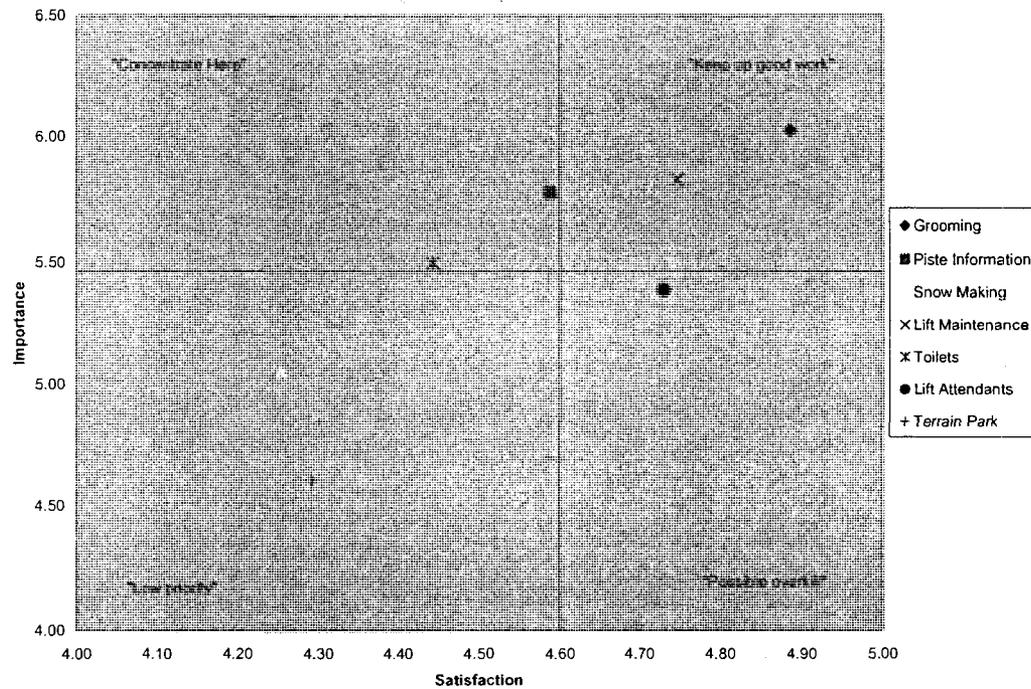
Figure 4.4: *Skier-Segmented Importance-Performance Ratings for the Slope Services Attributes*

4.2.2: Snowboarders' Importance and Satisfaction Ratings with Happo-One Facilities and Services

The number of snowboarders in the sample was 72 (24.1%), which was much less than the

skier population. While only two attribute categories were found in the area of concern for

the skier group, there were a total of five categories falling within the ("concentrate here")

quadrant for the snowboarder group (Figure 4.5).
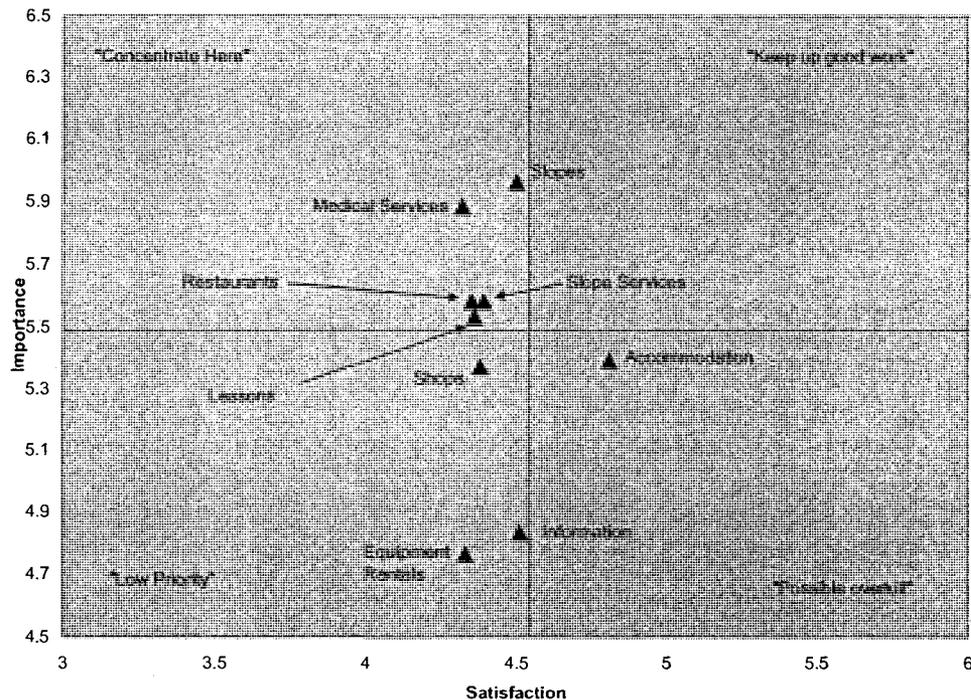
Figure 4.5: *Snowboarder-Segmented Importance-Performance Ratings for the Nine Ski Resort Attribute Categories*

Medical services, restaurants, lessons, slope services and slopes were areas of concern

for the snowboarder group.   Equipment rentals, information and shops were the three

categories which were considered a low priority. Happo-One did not perform well on any of

the categories ("keep up good work"), while one (accommodation) was considered "possible

overkill".

Examination of the medical services category (Figure 4.6) revealed that all attributes

fell within the area of concern. "Attitude and personality of staff", "knowledge of insurance

problems", and the "English language ability of employees" were all located in the

"concentrate here" quadrant.

Figure 4.7 details the attributes for the restaurant category. "Price", "quality of food",

"service", "availability of seating", and "variety of food" were all found in the "concentrate

here" quadrant. "English language ability of staff" was placed in the "low priority" area, within the same general location as the skier group. "Cleanliness of the establishment" was placed similarly to the skier group in the "keep up good work" quadrant. Additionally, the "clean accessible toilets" attribute was located in the ("keep up good work") quadrant. One attribute was in the "possible overkill" quadrant ("attitude and personality of staff").

Two attributes were located in the area of concern for the lessons category (Figure 4.8). Both "size of lesson group" and the "range of lessons" were located in the "concentrate here" area. "English language ability of employees" was located in the "low priority" area. The area of lessons that the resort performed well on with this group was the "quality of lessons".

Figure 4.9 details the attributes for the slope services category. "Piste information", "grooming", and "availability of toilets" were all located in the area of concern. Two attributes ("snow making" and "terrain park") were located in the "low priority" quadrant. The resort performed well on "maintenance of lift services", while "attitude and personality of lift attendants" was considered "possible overkill".

The final category for analysis within the snowboard group was the slopes (Figure 4.10). For this category, eight of ten attributes were located in the "concentrate here" quadrant ("ticket price", "ticket options", "length of lift queues", "off-piste terrain", "linkage and planning of slopes", "speed of lifts", "lift hours", and "snow quality"). The "variety of slopes" and the "number of lifts" were areas of high performance for the resort. No attributes were located in the bottom two quadrants.
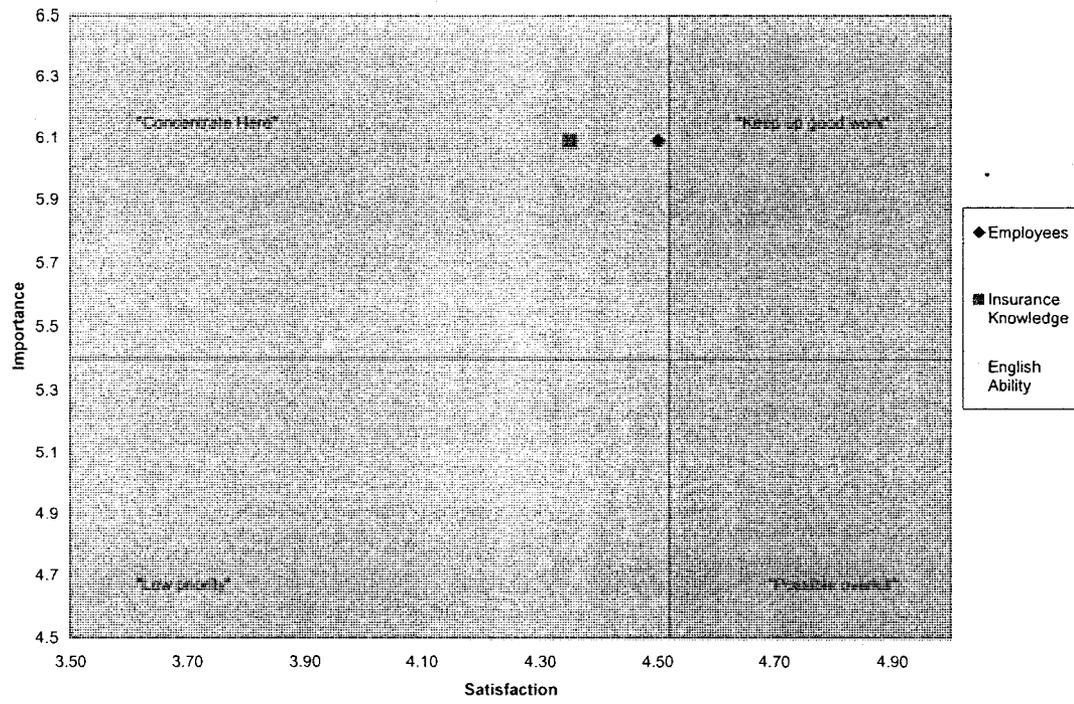
Figure 4.6: Snowboarder-Segmented Importance-Performance Ratings for the Medical Services Attributes

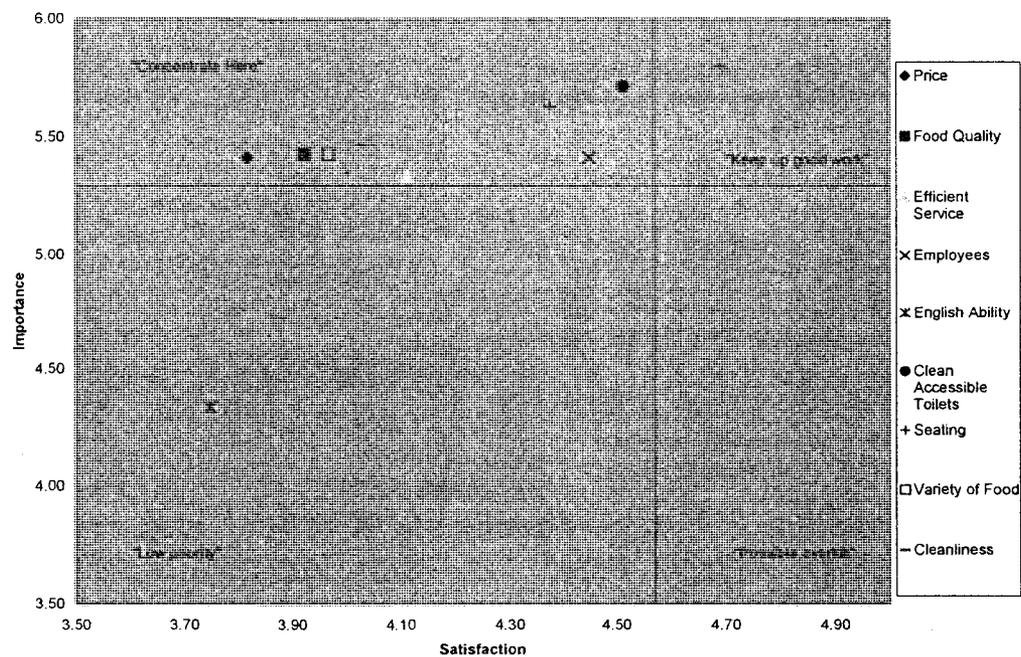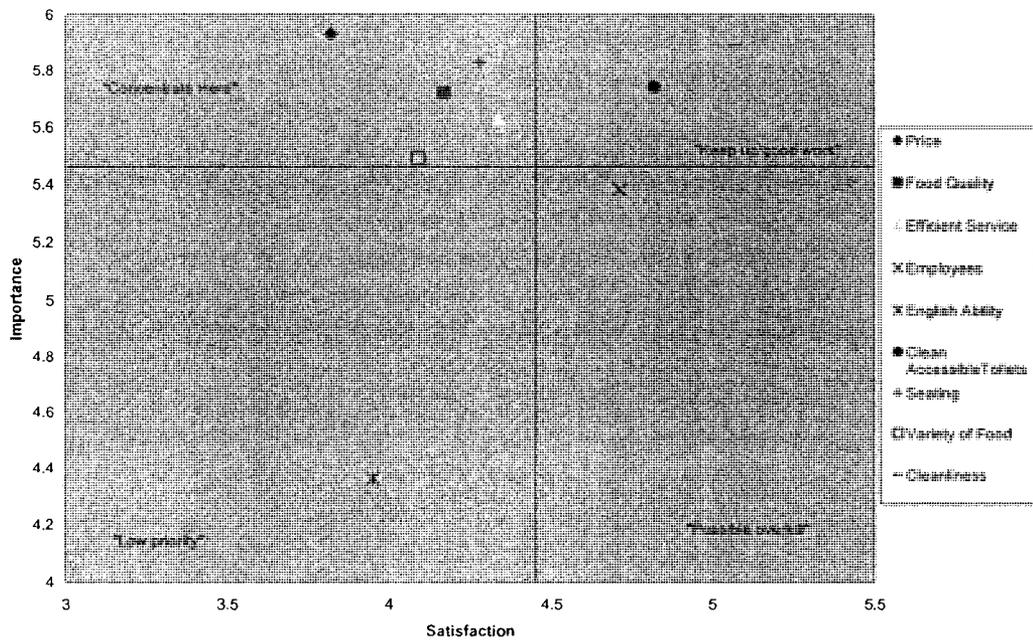Figure 4.7: *Snowboarder-Segmented Importance Performance Ratings for the Restaurant Attributes*
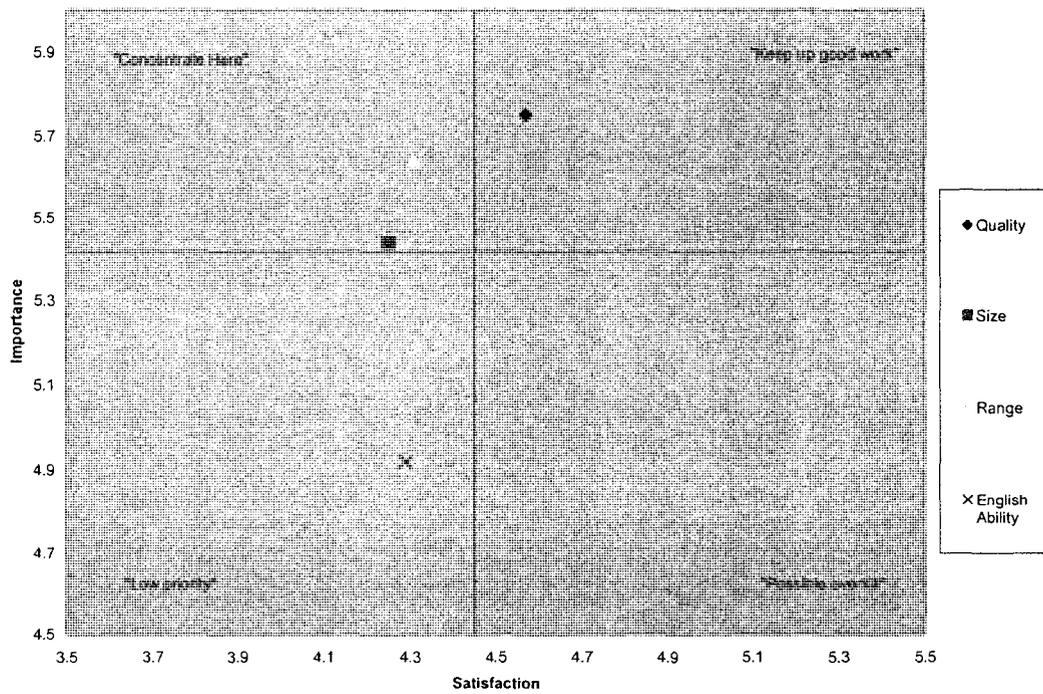
Figure 4.8: *Snowboarder-Segmented Importance-Performance Ratings for the Lessons Attributes*
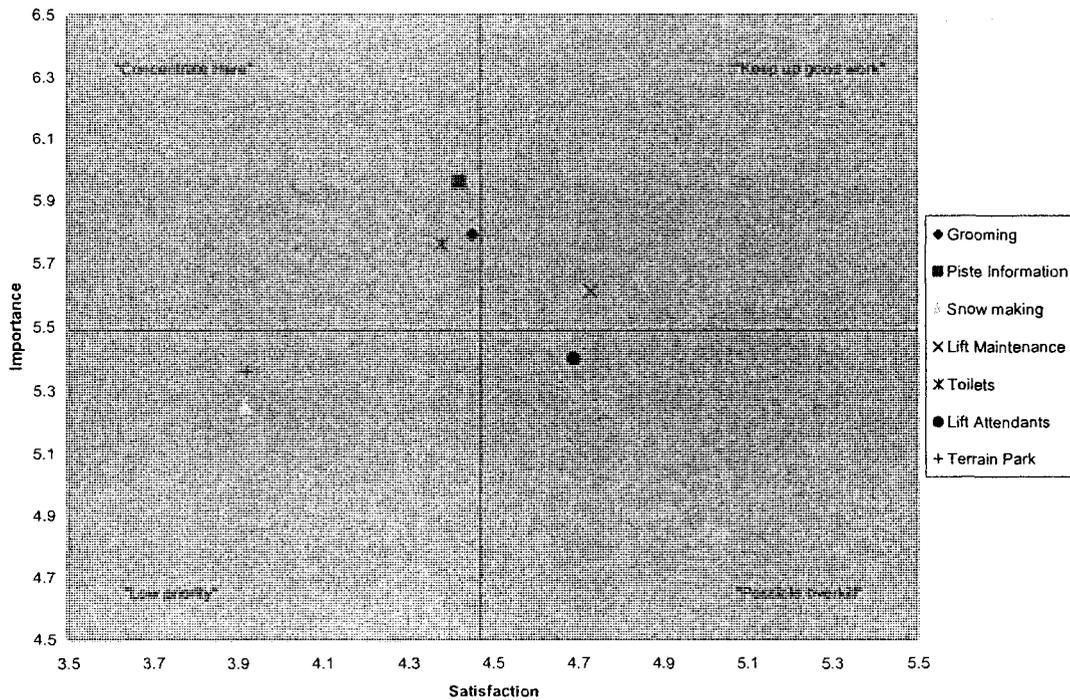
Figure 4.9: *Snowboarder-Segmented Importance-Performance Ratings for the Slope Services Attributes*

The chart shows an Importance-Performance Analysis plot with Importance on the y-axis (5.00 to 6.40) and Satisfaction on the x-axis (3.50 to 5.50). Quadrant labels read "Concentrate Here," "Keep up good work," "Low priority," and "Possible overkill." The legend lists: ◆ Ticket Price, ■ Ticket Options, Slope Variety, ✗ Amount of Lifts, ✗ Queuing, ● Off-Piste, + Linkage, □ Lift Speed, ~ Lift Hours, △ Snow Quality.
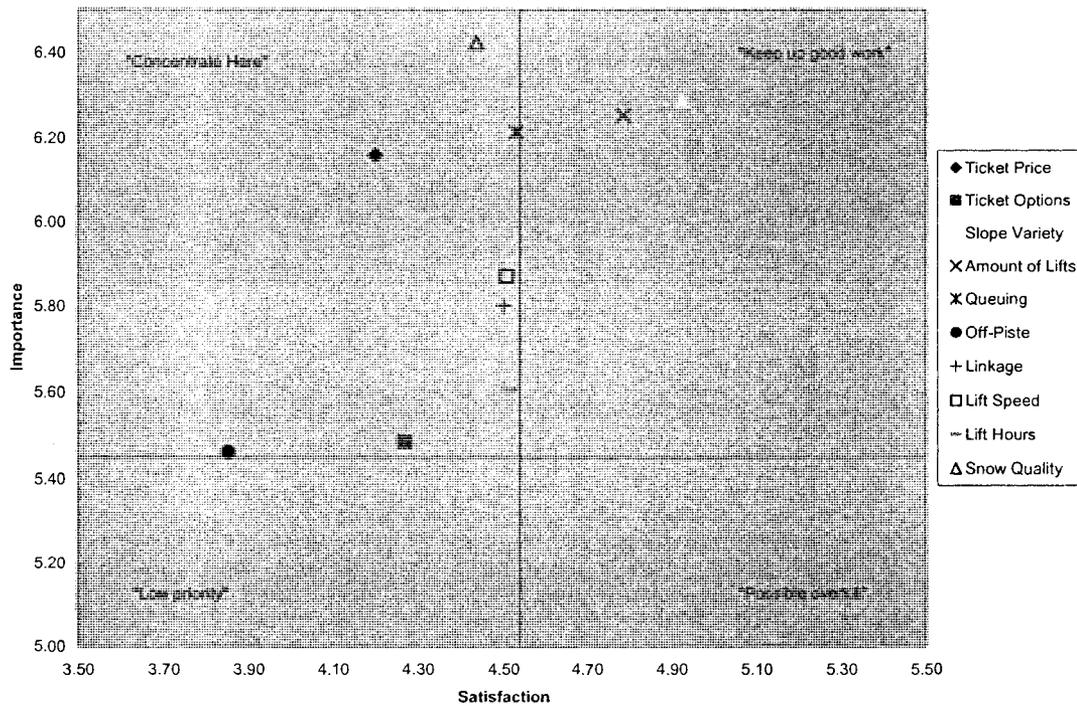
Figure 4.10: *Snowboarder-Segmented Importance-Performance Ratings for the Slopes Attributes*

The preceding analysis has demonstrated that segmenting the participants by sport was a useful method of segmentation. Skiers and snowboarders in this sample were two discrete groups not only in terms of their characteristics but also in the relative importance of their foci and level of satisfaction with the facilities and services provided at Happo-One. While the skiing group had only two categories in the area of concern (restaurants and slope services), the snowboarding group had five (restaurants, slope services, lessons, medical services, and slopes). Despite these differences, there were also some notable similarities between the groups. Shops, equipment rentals, and tourist information services were all located in the "low priority" quadrant for both groups. Additionally, the accommodation category was located in the "possible overkill" quadrant for each segment.

To provide a more accurate planning and decision making tool, it has been suggested that segmentation is a necessary component of the IPA (e.g., Bruyere, Rodriguez & Vaske,

2002; Wade & Eagles, 2003). Therefore, it was important to identify distinct user sub-

groups within the overall sample of skiers and snowboarders. This was achieved by using

the recreation specialization construct.

4.3 Skier and Snowboarder Preferences by Level of Specialization

Table 4.5 shows the results of the cluster analysis for segmenting the skier and snowboarder

by specialization. The K-Means Cluster Analysis method divided the skiers into three and

the snowboarders into two relatively equal-sized clusters based on the specialization

measures. For the skiers, the "medium" group was the largest (84), the "high" specialized

group was the next biggest (68), and the "low" specialized group had the fewest members

(60). Similarly, the snowboarders were divided into one group of "low" specialization (37)

and another of "high" specialization (32).

Table 4.5: *Cluster Analysis Results*

Specialization Variable	Ski Clusters			Snowboard Clusters	
	Low	Medium	High	Low	High
Sport Importance	2.07	3.54	4.46	2.22	4.13
Skill	2.05	2.46	3.22	1.59	2.47
Sport Importance Compared	2.08	3.57	4.63	2.41	4.03
Importance of Skill Development	1.82	2.89	4.31	2.35	3.97
Frequency of Sport	1.42	2.00	2.84	1.30	2.22
Total Number of Cases	60	84	68	37	32

4.3.1: Skier Group

Each specialized ski segment was analyzed using the IPA for the nine attribute categories

with subsequent analysis performed for each category falling into the "concentrate here"

quadrant. The subsequent analysis was performed by looking at the individual attributes for

each category. As it is desirable to target the "concentrate here" quadrant, the results of the

categories falling into this area are displayed in Figure 4.11. Attribute categories not placed

within the "concentrate here" quadrant can be seen in Appendix 7.
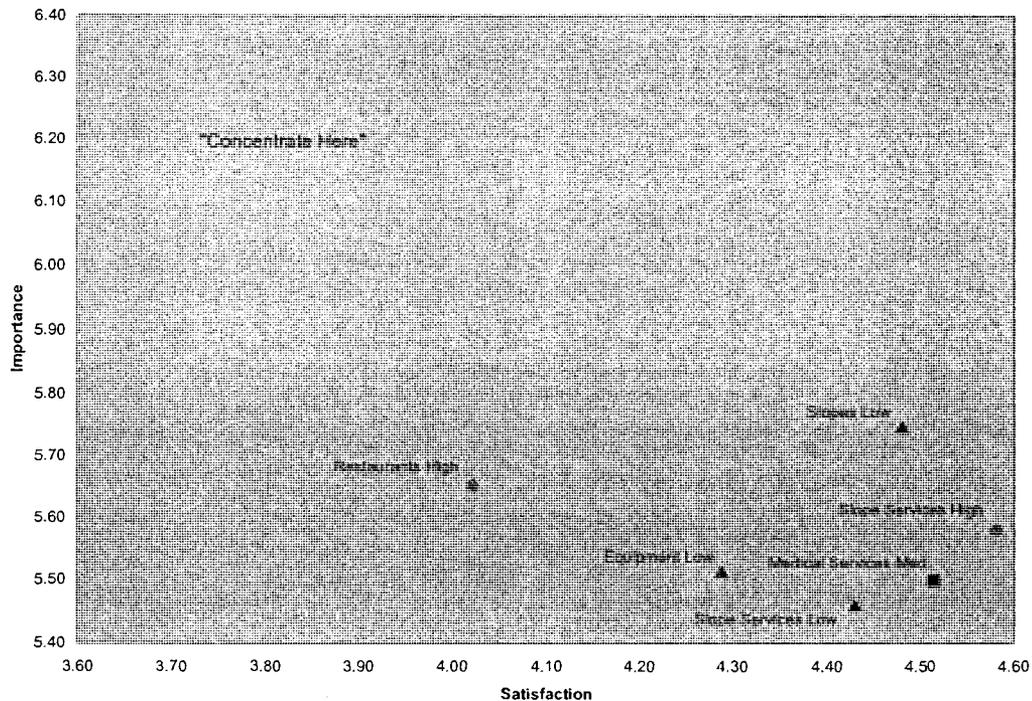
Figure 4.11: *Attribute Categories in the "Concentrate Here" Quadrant by Level of Specialization (Skiers)*

Figure 4.11 is displays the "concentrate here" quadrant only. For the low specialized

group, equipment rentals, slopes, and slope services needed attention. The resort needed to

concentrate on the medical services for the medium specialized group and restaurants and

slope services were of concern for the high specialized skiers. Discussion on each of the

three segments of specialization, low, medium and high, follows with reference to the details

of each category falling within the "concentrate here" quadrant.

Low specialized skier group.

Figure 4.12 shows the results for the analysis of the equipment rental category. Areas for

improvement included "price", "quality and range of equipment" and the "ability to

exchange rented gear". The "English ability of employees" fell on the line between the "low

priority" and "overkill" categories. In either case, the importance of this category was ranked as low compared to the other attributes. The resort performed well in two areas of equipment rental for this group ("attitude and personality of employees" and "length of queues").

Examination of the slopes category for the low specialized group showed half of the attributes falling within the "concentrate here" quadrant (Figure 4.13). "Price of lift tickets", "variety of lift ticket options", "slope variety", "speed of lifts" and "quality of snow" were all areas in which Happo-One did not perform well. Two categories ("off-piste terrain" and "lift hours") were placed in the "low priority" area, and the resort performed well in three areas ("amount of ski lifts", "length of queues" and "how well the slopes were linked and planned"). No attributes were considered "overkill".

Three attributes ("grooming", "piste information" and "availability of toilets") were placed in the "concentrate here" quadrant after examination of the slope services category (Figure 4.14). Two attributes ("snow making" and the "terrain park") were considered "low priority"; one attribute ("maintenance of lift services") was in the "keep up good work" area; and the "attitude and personality of the lift attendants" was considered "possible overkill".
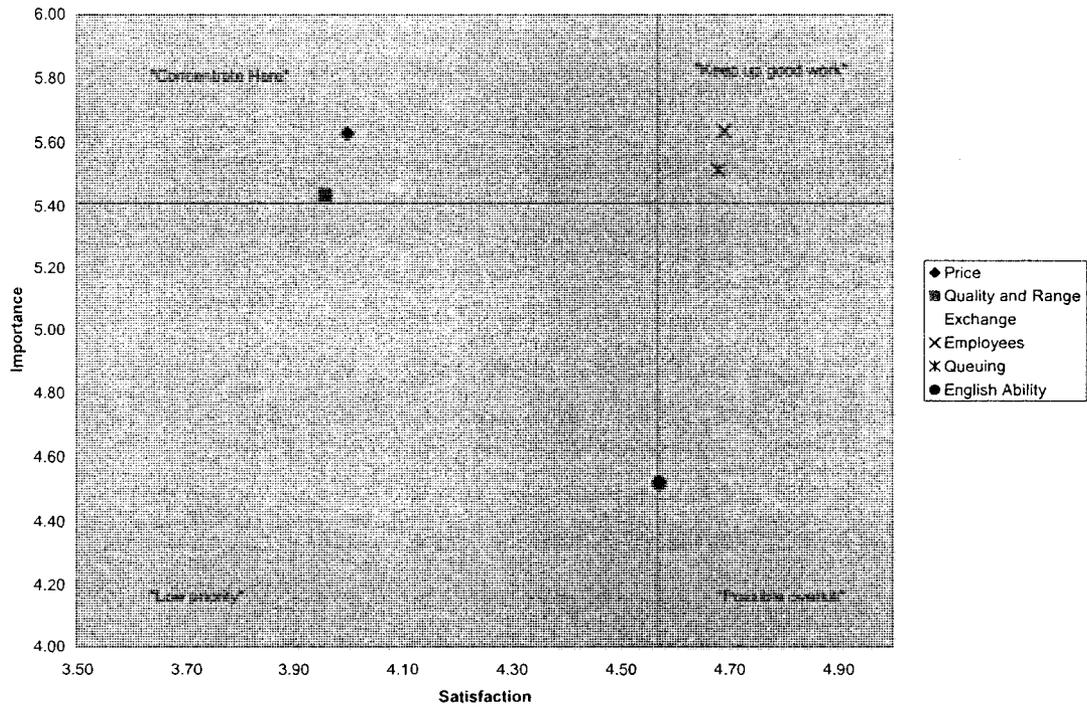
Figure 4.12: *Low Specialized / Skier-Segmented Importance-Performance Ratings for the Equipment Rental Attributes*
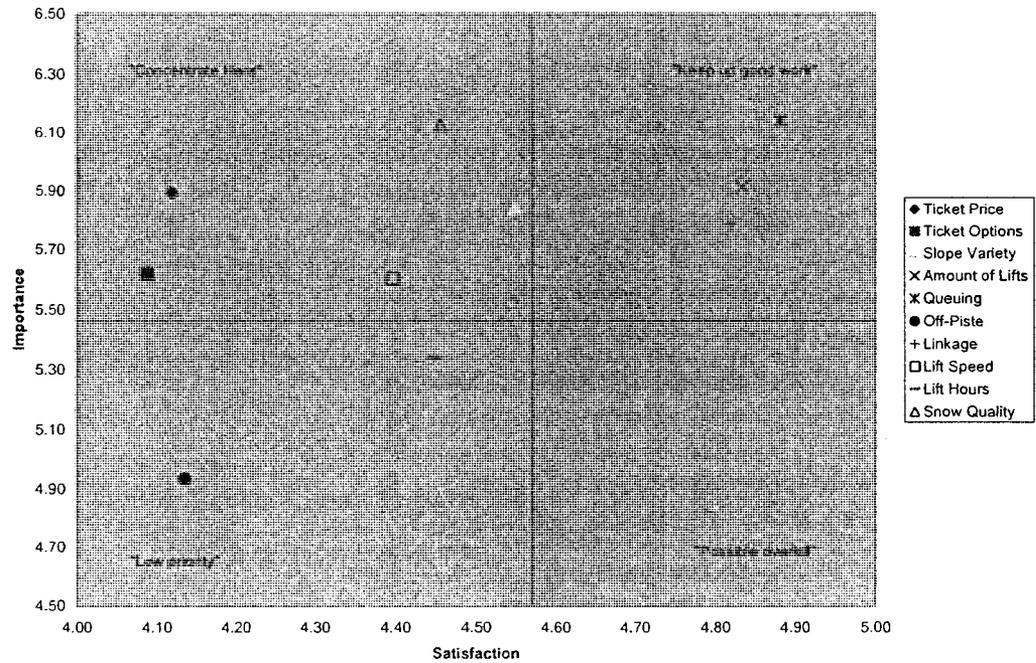
Figure 4.13: *Low Specialized / Skier-Segmented Importance-Performance Ratings for the Slopes Attributes*
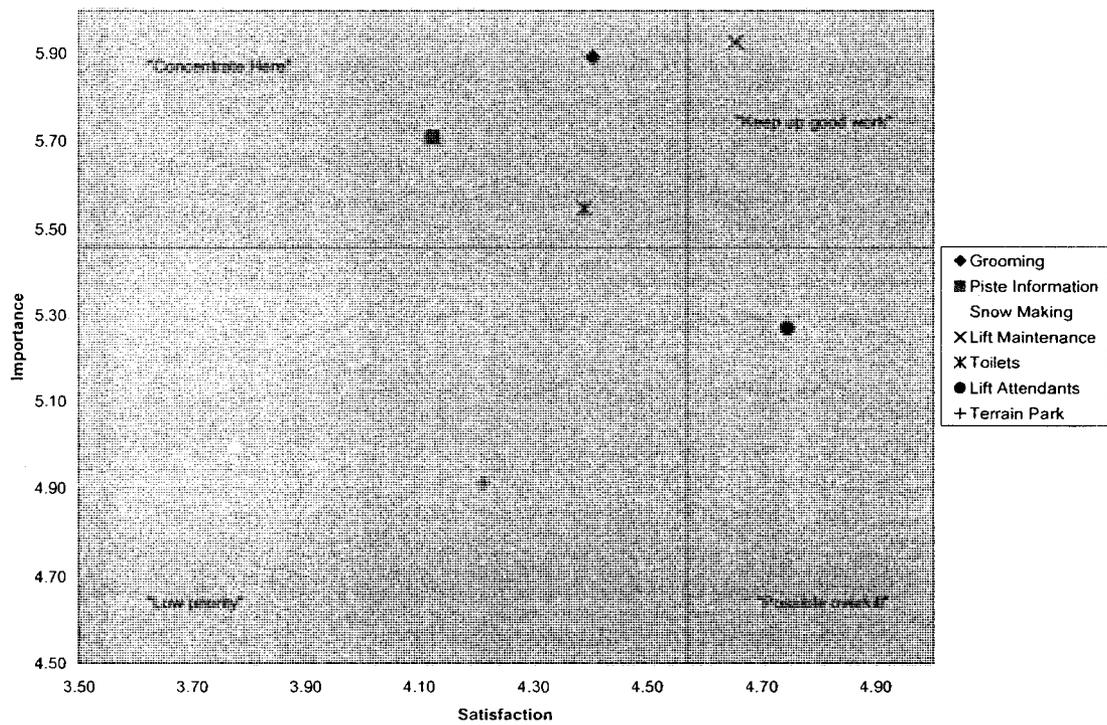
Figure 4.14: *Low Specialized / Skier-Segmented Importance-Performance Ratings for the Slope Services Attributes*

Medium specialized skier group.

Upon closer examination of the medical services category for the medium level of specialization (Figure 4.15), it is seen that none of the attributes actually fell within the "concentrate here" quadrant. The "English ability of employees" was considered "low priority"; the resort performed well on "attitude and personality of employees"; and "knowledge of insurance problems" was considered "possible overkill". Initial representation of the medical services category in the "concentrate here" quadrant followed by no representation of the specific medical services attributes in the same quadrant was unique to this case and could have been a result of the few data points "cancelling" each other out, or it could represent an overall dissatisfaction with the medical services, but not

with specific attributes. More research is needed to address the customers' needs for the

medical services.
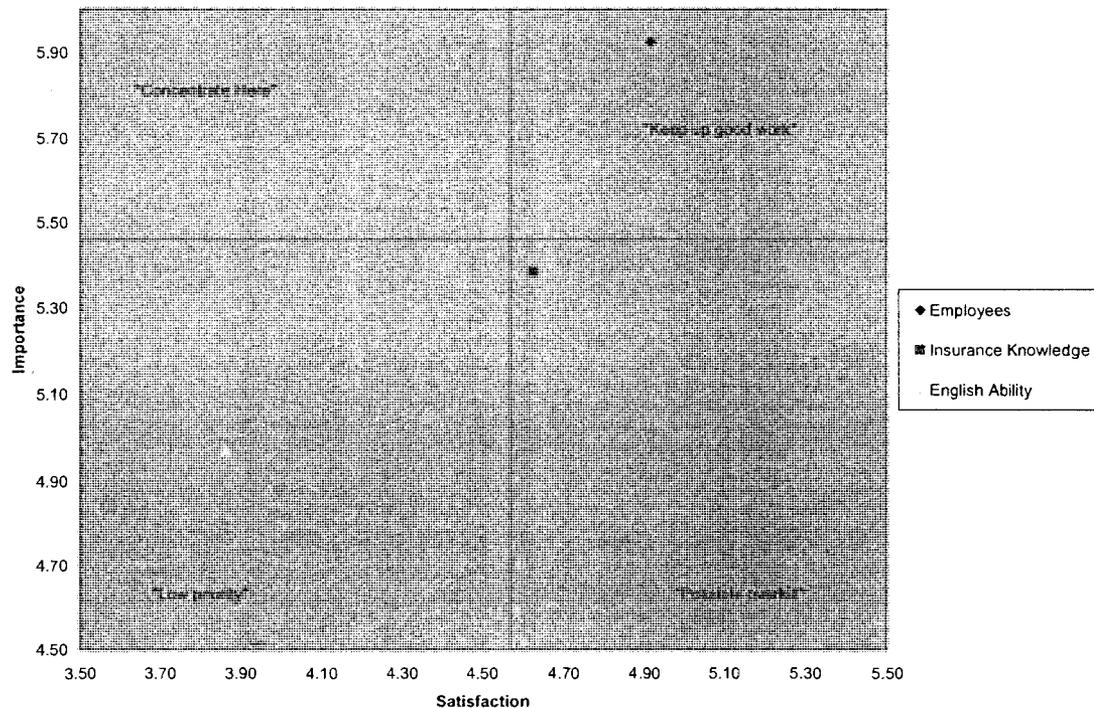
Figure 4.15: *Medium Specialized / Skier-Segmented Importance-Performance Ratings for the Medical Services Attributes*

High specialized skier group.

Figure 4.16 displays the results for examination of the restaurant category for the high

specialized skiers. All of the attributes except for one ("English ability of employees") were

found in the "concentrate here" quadrant. This indicates that the resort performed very

poorly on the restaurants overall, a result similar to other segments. The English ability

attribute is the one exception and it was given a "low priority" designation.

The final application of the IPA for the skier group was an examination of the slope

services for the high specialized group (Figure 4.17). In contrast to the restaurant category,

only one attribute ("availability of toilets") was found in the area of concern. "Snow

making" and the "terrain park" were found in the "low priority" area, while four attributes

("piste information", "grooming", "maintenance of lift services" and "attitude and

personality of lift attendants") were within the "keep up good work" quadrant. No attributes

were considered "possible overkill" for this group.

Figure 4.16: *High Specialized / Skier-Segmented Importance-Performance Ratings for the Restaurant Attributes*
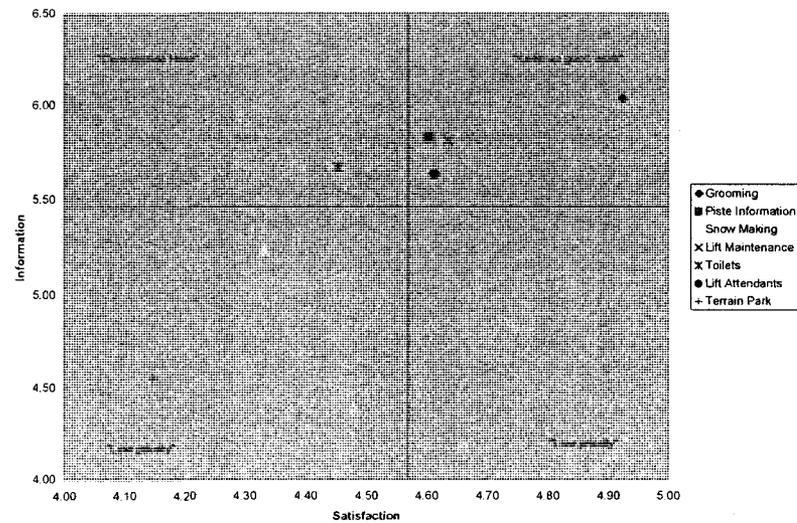
Figure 4.17: *High Specialized / Skier-Segmented Importance-Performance Ratings for the Slope Services Attributes*

The value of segmenting by specialization was illustrated with this skier group. Initial

segmentation by sport indicated that Happo-One did not perform well in two categories for

the skier group (restaurants and slope services). These two categories were placed within

the "concentrate here" quadrant, indicating low satisfaction and high importance.

Subsequent segmentation by specialization revealed that other categories were of concern in

addition to restaurants and slope services. Slopes (low specialization), equipment rentals

(low specialization) and medical services (medium specialization) were additional categories

that became a priority for addressing the needs of the skier group.

Differences in overall satisfaction amongst specialization groups (skiers).

More attribute categories were located above the satisfaction with performance crosshair for

the medium and high specialized groups when compared to the low specialized groups. A

one-way ANOVA test (SPSS 16.0) was used to examine the differences in overall

satisfaction between the levels of specialization. Overall the test showed significant

differences ($p < 0.05$) between the three groups (See Table 4.6). A Bonferroni post-hoc

indicated that the significant difference was between the low and medium (mean difference

= .39918) levels of specialization (see Table 4.7).

Table 4.6: *Overall Satisfaction between Specialized Skier Groups.*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.650	2	2.825	3.895	.022
Within Groups	151.580	209	.725		
Total	157.230	211			

Table 4.7: *Overall Satisfaction between Specialized Skier Groups Post-hoc Test.*

Specialization Level	Low	Medium	High
Mean score	4.31*	4.71*	4.59

*Sig Diff 0.05

4.3.2 Snowboarder Group

Each specialization segment for the snowboarders was analyzed using the IPA for the nine

attribute categories with subsequent analysis performed for each category falling into the

"concentrate here" quadrant. Figure 4.18 displays the "concentrate here" quadrant from the

initial analysis of the categories. Attribute categories not placed within the "concentrate

here" quadrant can be seen in Appendix 5.
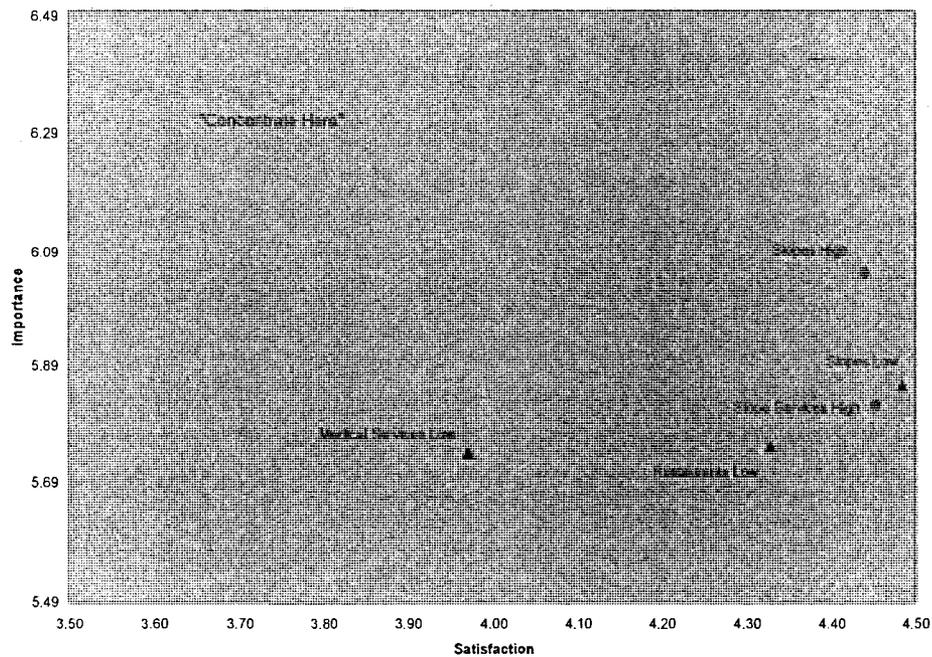
Figure 4.18: *Attribute Categories in the "Concentrate Here" Quadrant by Level of Specialization (Snowboarders)*

Three categories were within the area of concern for the low specialized group (medical services, restaurants and slopes). Two categories (slopes and slope services) fell within the "concentrate here" quadrant for the high specialized group.

Low specialized snowboard group.

Figure 4.19 displays the results for analysis of the medical services category for the low specialized snowboard group. All three attributes ("attitude and personality of employees", "knowledge of insurance problems" and "English ability of employees") were within the "concentrate here' quadrant. It is interesting to note that this is the only instance where English ability fell in a category other than "low priority".

The results of the analysis for the restaurant category are displayed in Figure 4.20. Three restaurant attributes were within the "concentrate here" quadrant ("price", "food quality" and "variety of food"). Only one attribute ("English ability of employees") was within the "low priority" area, while the resort performed well on all other attributes ("efficient service", "attitude and personality of employees", "clean accessible toilets", "availability of seating" and "cleanliness"). No attributes fell in the "overkill" area.

The final category (slopes) for the low specialized snowboarders is displayed in Figure 4.21. Four attributes ("ticket price", "variety of ticket options", "quality of snow" and "how well the slopes are linked and planned") were in the "concentrate here" quadrant. "Off-piste terrain" was considered a "low priority", and all other attributes ("amount of lifts", "variety of slopes", "length of queues", "lift speed" and "lift hours") were considered successful, as they were within the "keep up good work" quadrant. No attributes were in the "possible overkill" area.
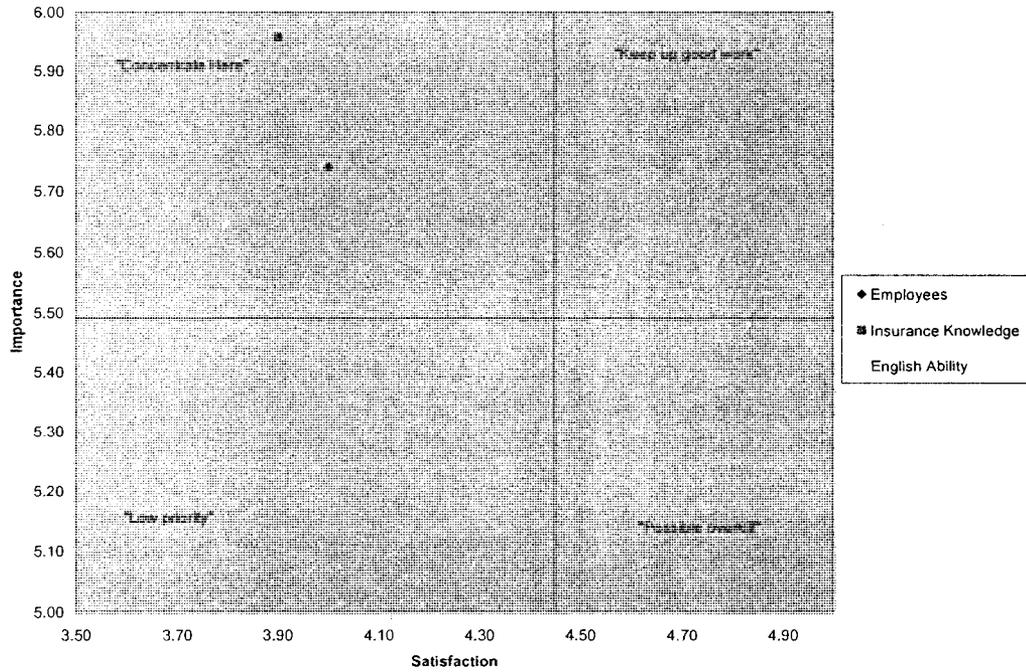
Figure 4.19: *Low Specialized / Snowboarder-Segmented Importance-Performance Ratings for the Medical Services Attributes*
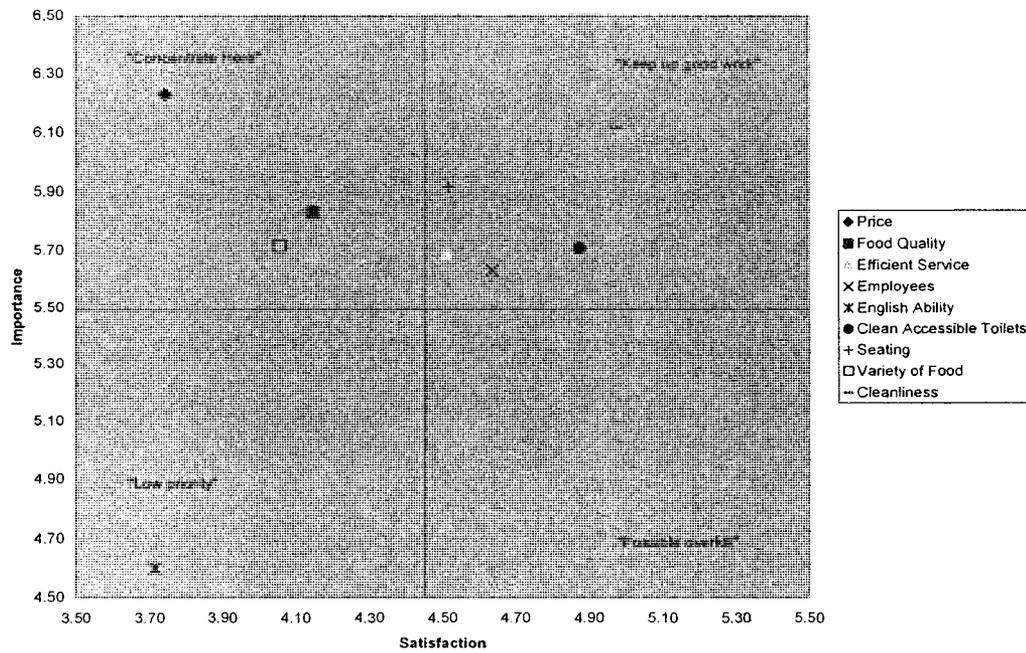
4.20: *Low Specialized / Snowboarder-Segmented Importance-Performance Ratings for the Restaurant Attributes*
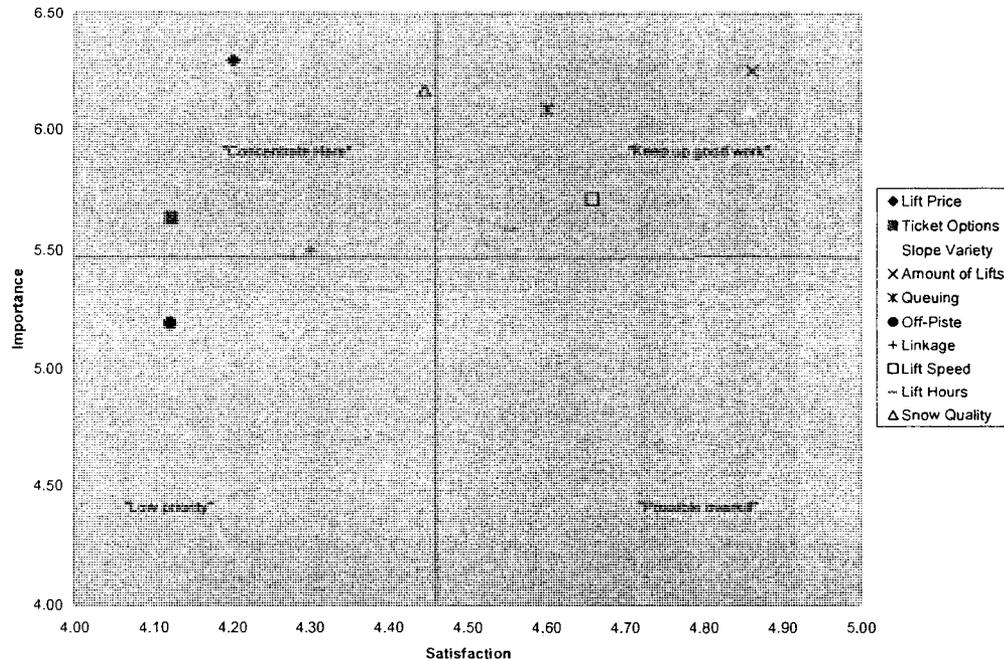
Figure 4.21: *Low Specialized / Snowboarder-Segmented Importance-Performance Ratings for the Slopes Attributes*

High specialized snowboard group.

Figure 4.22 displays the results for analysis of the slopes category for the high specialized snowboard group. Five attributes ("ticket price", "off-piste terrain", "lift speed", "snow quality" and "lift hours") were within the "concentrate here" quadrant for this group. "Variety of ticket options" was considered a "low priority" for this group. The resort was considered to have performed well on the remaining four attributes ("slope variety", "amount of lifts", "how well the slopes are linked and planned", and "length of queues"). No attributes were considered "possible overkill" for this group.

The final category for analysis is the slope services for the high specialized snowboard group (Figure 4.23). Four attributes were within the "concentrate here" quadrant ("grooming", "snow making", the "terrain park" and "availability of toilets"). The resort was considered to have performed well on three attributes: "piste information", "maintenance of

lift services" and the "attitude and personality of employees". No attributes were considered

"low priority" or "possible overkill", indicating that all attributes for this group were of high
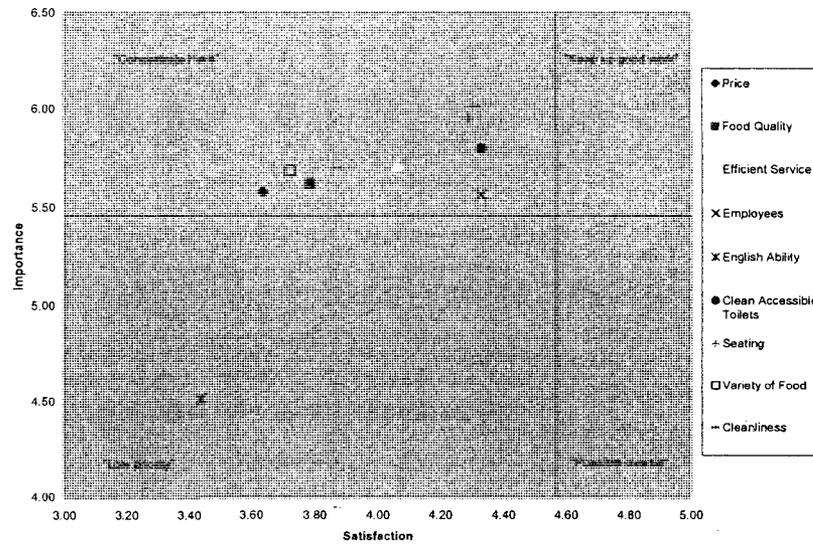
importance.
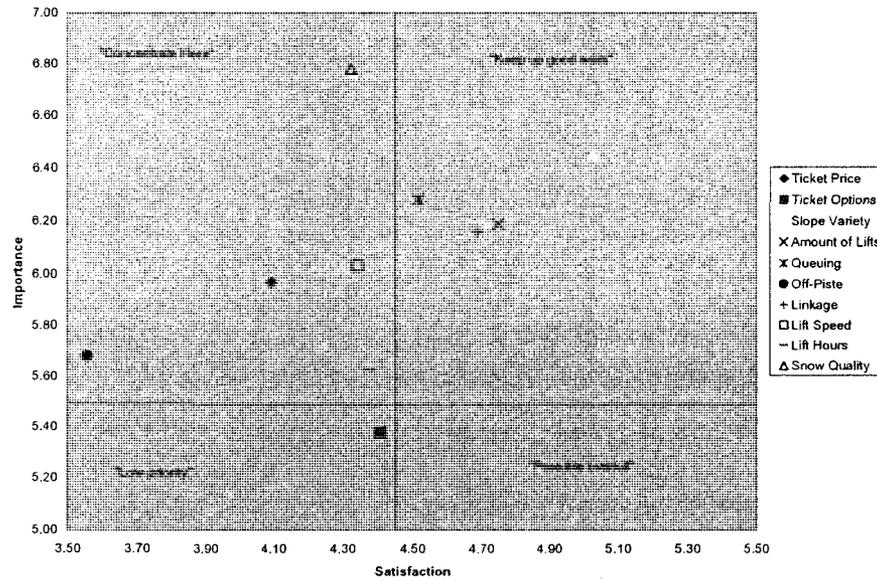
Figure 4.22: *High Specialized / Snowboarder-Segmented Importance-Performance Ratings for the Slopes Attributes*
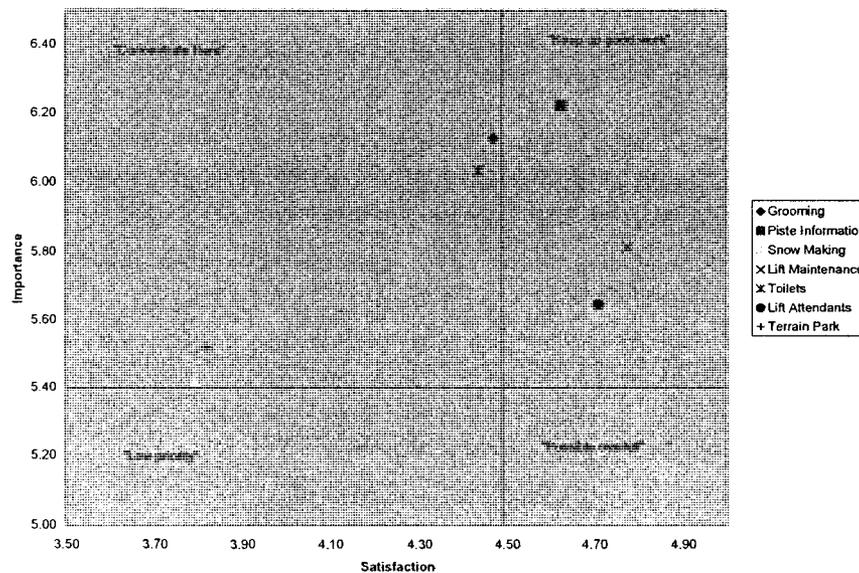
Figure 4.23: *High Specialized / Snowboarder-Segmented Importance-Performance Ratings for the Slope Services Attributes*

Differences in overall satisfaction amongst specialization groups (snowboarders).

Similar to the skiers, more attribute categories were located above the satisfaction line for the

high specialized group. While the low specialized snowboard group had all categories,

except for one, below the satisfaction crosshair, the high specialized group was defined as

having most of the categories above the crosshair. Only one third (3) of the attributes for this

group fell below the satisfaction line. Unlike the skiers, a one-way ANOVA test (SPSS 16.0)

demonstrated no significant difference ($p < 0.05$) between the specialization segments in the

overall level of satisfaction.

5.0 Discussion

Happo-One is known as predominantly catering to skiers rather than snowboarders. The relative percentages of skiers to snowboarders in this sample were 72.2 per cent and 24.1 per cent respectively. An additional 3.7 per cent of respondents reported participation in both sports, and as a result were omitted from the analysis. While these numbers accurately reflect the estimated skier to snowboarder ratio at Happo-One (7:3), they are slightly different from Japan's national composition of skiers (58%) and snowboarders (42%) (JPC-SED, 2006).

In Japan, there has been an increase in the average age for both skiers and snowboarders over the past decade, as well as an increase in the proportion of male participation (SPC-SED, 2006). Tourism British Columbia (2006) conducted a market report on the Japanese ski industry, and explained that skiers had an average age of close to 40 years and that almost two-thirds of the group were male. Snowboarders had a national average age of close to 27 years with a 57 per cent male participation rate. The sample in this study was similar to these characteristics i.e., 70.4 per cent of skiers and 62.5 per cent of snowboarders were male with an average participant age of 42.3 and 27.1 respectively.

Considering the average age gap between skiers and snowboarders, it is not surprising that the number of years of participation for each sport was markedly different. The *White Paper on Leisure* showed that the national average for number of years of participation was higher for skiers (17 years) than snowboarders (5 years). Skiers in this sample have participated for an average of 23.1 years, while snowboarders have participated for an average of 6.6 years.

Length of time as a participant does not appear to affect dramatically the frequency of participation per year. The *White Paper on Leisure* showed that the national average for skier and snowboarder yearly visits ranged between three to nine visits per year depending on economic and snow conditions. Specifically, skiers averaged a frequency of 4.4 visits in 2005, and snowboarders averaged 4.0 visits. The sample from this research did not reflect the same values for frequency of participation. The snowboard group reported an average of 7.8 times annually, while the ski group was almost double the participation rate with an average of 14.4 times per annum.

While annual participation rates did not reflect the national averages, travel party composition and annual expenditure are another two areas that did reflect similarities to national averages. Tourism British Columbia (2006) indicated that the most significant difference between snowboarders and skiers was that only 9.2 per cent of the former participated with family and friends compared to 35.1 per cent of skiers. Conversely, 54.5 per cent of snowboarders reported participation with friends, while 31.8 per cent of skiers participated with friends. The characteristics of the Happo-One sample reflected these characteristics. The snowboard group was characterized as participating with friends (69.4%) and family (9.7%) most of the time. In contrast, the ski group reported participating more with family (43.9%) and less with friends (30.1%).

The skill level of respondents in this sample was similar to national averages, with a slightly higher variation for the skier group. The *White Paper on Leisure* stated that the majority of skiers in Japan were beginner to intermediate, and that snowboarders were similar with slightly more beginner to intermediate participants. Eighty-two per cent of the snowboarders in this sample reported their ability as either beginner or intermediate. The

skier group had much higher levels of advanced to expert participants (54.1%). A possible

explanation for this variation is that in addition to being a predominantly skier-based resort,

Happo-One is also well known for its large area of advanced level terrain, which would tend

to dissuade beginner and intermediate level participants.

In regard to expenditure on their sport, skiers were characterized as spending more than

snowboarders, both nationally and within this sample. The *White Paper on Leisure* indicated

that on average, skiers in Japan spent approximately $740.00 CAN per year on their sport,

while snowboarders spent approximately $561.00 CAN per year. The sample from Happo-

One was characterized as spending more money per year than the national averages, but with

similar proportions. The ski group spent an average of $1,341.00 CAN on equipment, while

the snowboard group spent $819.00 CAN. It can be concluded that both groups spent

substantially more than the national average, as these values were for equipment only, and

excluded other sporting related costs, such as travel, lift tickets and accommodations.

There were significant differences in age and number of years as a participant between

the skier and snowboarders, which led to the decision to examine them as two separate

samples in the analysis. Confirmation of the differences was indicated clearly in current

research reports on Japan's ski market (JPC-SED, 2006; Tourism British Columbia, 2006).

Additionally, past literature supported the concept of separating recreationists into sub-

groups on the basis of recognizing diversity that, if unrecognised, could lead to insensitive

management decisions and potentially user displacement (Bruyere et al., 2002; Farnum &

Hall, 2007; Fuller & Matzler, 2007; Wade & Eagles, 2003; Vaske et al., 1996). Discussion

will now focus on comparing the two sporting groups based on the results of the IPA in

general, and with regards to further segmentation by levels of recreation specialization.

5.1 Skiers' and Snowboarders' Perceptions of Service Quality

Empirical studies comparing skiers and snowboarders are few in number. Where these differing sporting groups have been examined, studies have tended to concentrate on exploring the nature of conflicts between them (Thapa, 1996; Thapa & Graefe, 1999; Vaske et al., 2000; Vaske et al., 2004; Williams et al., 1994). The implications of these studies have little relevance to the issues presented here, as they are designed to determine the level of compatibility between skiers and snowboarders. Furthermore, most of the data collected in these studies dates back more than a decade when snowboarding was in its infancy. Vaske et al. (2004) concluded that due to snowboarding's rapid growth and changes in ski technology, it was highly possible that the results of this past research may not be as relevant to today's ski fields.

Previous studies incorporating IPA and various methods of segmentation (Bruyere et al., 2002; Farnum & Hall, 2007; Fuller & Matzler, 2007; Wade & Eagles, 2003) warned of the potential dangers in treating recreationists as homogenous groups. Furthermore, recent applications of the IPA at ski resorts (Hudson & Shephard, 1998; Uysal et al., 1991) did not incorporate segmentation and suggested that further research was needed which incorporated segmenting ski resort customers and measurements of importance and satisfaction. Analysis of data from the skier and snowboarder groups at Happo-One revealed that while the two groups are the same in many ways, there are also some differences, which have implications for management.

Of the nine attribute categories in the IPA, both skiers and snowboarders had similar results for six of these. The accommodations category was considered "possible overkill" and three categories (equipment rentals, shops, and tourist information services) were

considered "low priority". Two categories (restaurants and slope services) were in the "concentrate here" quadrant for both sporting groups. For the skiers, these were the only two categories falling within this area of concern. However, for the snowboarders there were three more categories (lessons, slopes and medical services) falling within this quadrant. These same three categories were all within the "keep up good work" quadrant for the ski group.

5.1.1: Restaurants & Slope Services

Further analysis of satisfaction with restaurants and slope services categories revealed some differences on how the two groups think Happo-One is performing. For the skiers, all but two restaurant attributes were within the "concentrate here" quadrant. These attributes included price, food quality, efficient service, attitude and personality of employees, clean accessible toilets, availability of seating, and the variety of food. The snowboarders agree with all of these except for the attitude and personality of employees ("possible overkill") and clean accessible toilets ("keep up good work"). For both groups, the English language ability of employees was considered to be a "low priority", and the overall cleanliness of the restaurants was within the "keep up good work" quadrant. The results of this analysis suggests that managers need to focus on improving the restaurants in almost every category in order to better meet the needs of all customers at Happo-One.

Regarding the dissatisfaction of both groups with the slope services, further analysis indicated that almost all attributes were in the same quadrants. The one exception was grooming, which was placed in the "concentrate here" quadrant by the snowboarders and in the "keep up good work" quadrant by the skiers. The reason for disparity between skiers and snowboarders is unclear, but it is perhaps best explained by the large percentage of

advanced skiers (40.7%) compared to advanced snowboarders (11.1%). A higher level of skill would enable participants to adapt to more variable conditions. Conversely, lower levels of skill would likely lead to dissatisfaction with less than ideal conditions. Further analysis by management would be necessary to specify the exact deficiencies perceived by the snowboarders and on this basis assess the costs and benefits of remediation.

Two remaining slope service attributes which fell within the "concentrate here" quadrant for both sporting groups were availability of toilets and piste information. The availability of toilets around Happo-One is limited, as they are centred on eating establishments around the resort rather than dispersed across the slopes. The fact that this is an area of concern raises the question as to whether there is need for more rest areas around the resort or simply more toilets. Further research is needed to adequately address this problem. According to a local ski guide, the lack of piste information at the resort is a problem for many users of Happo-One ski resort (Personal Communication, 2007). Complaints usually centre on a lack of information for trails and lifts at key areas around the resort. Resort managers can make improvements in this area by simply increasing the amount of signage around Happo-One. Not only will this action enhance user satisfaction, but it is also beneficial from a risk management perspective. Lack of piste information is a potential hazard, as skiers and snowboarders may accidentally venture onto a piste which is beyond their ability.

5.1.2: Lessons, Medical Services and Slopes

As indicated, lessons, medical services, and slopes are areas of the resort on which skiers and snowboarders have very different perspectives. While the skiers reported high levels of

satisfaction and importance with these categories, the snowboarders reported them as areas that needed improvement ("concentrate here").

Overall, snowboarders reported that the quality of the lessons was good, but the deficiency was with the range of lessons available and the size of groups. Resort managers should follow up in this area by asking snowboarders what can be done to better meet their needs in the area of lessons. Clearly, two immediate areas of improvement would be to provide a broader range of lessons with high quality throughout, and reducing the size of classes to better reflect the desires of participants.

From a risk management perspective, the medical services category needs to be addressed. All three attributes (attitude and personality of employees, knowledge of insurance claims and English ability of employees) were placed in the "concentrate here" quadrant by snowboarders. It is unclear why medical service was not a concern for the skiers, but a possible explanation may be linked to the skill level of participants. Skiers have a higher percentage of advanced and expert level participants (54.1%) compared to snowboarders (18%), and this may affect perceptions of the medical services. Medical services at the resort need to be researched more thoroughly to ensure that they are providing a very high level standard of care for participants.

Snowboarders reported all slope attributes except for two (amount of lifts and slope variety) in the "concentrate here" quadrant. The attributes that were of concern included ticket price, ticket options, lift queues, off-piste terrain, linkage of slopes, lift speed, lift hours and snow quality. More research is needed for managers to better understand how to make changes which will increase snowboarder satisfaction with the slopes of Happo-One. For

example, finding out what type of ticket options are desirable or offering discounted tickets on days which are most popular with snowboarders.

5.1.3: Summary of Skier/Snowboarder Differences

By focusing on the restaurant and slope service attributes, managers will be able to improve the resort experience for both groups.   However, if managers want to attend to more of the snowboarders' needs, then they will have to explore further the specific deficiencies in lessons, slopes and medical services; areas perceived as satisfactory by the skiers. This research shows managers that skiers and snowboarders have somewhat different requirements. Currently, managers are meeting most needs for skiers but not for snowboarders and they will have to weigh up the costs and benefits of making any changes in their current services (lessons and medical) and infrastructure (slopes) to more adequately address the needs of snowboarders.

The advantage of segmenting is clearly illustrated by these findings, which reveal not only the specific service and infrastructure areas in which deficiencies are perceived by the respective sporting groups, but also point to directions for research that can explore the nature of the deficiencies and provide information to assess the costs and benefits of remediation. The following section explores the utility of the concept of "recreation specialization" as a means of segmentation. This approach is perceived as useful because it clarifies which recreationists within each sporting group needs to be targeted, thus further informing the management of the ski slopes at Happo-One and more generally.

5.2 Perceptions of Service Quality at Happo-One as a Function of Recreation
Specialization in Skiing and Snowboarding

As previous research in recreation specialization has demonstrated that setting attribute

preferences varied with level of specialization in and between activity groups (e.g., Ewert &

Hollenhorst, 1994; Kerins et al., 2007; Virden & Schreyer, 1988), it is an appropriate method

to explore satisfaction with resort services and infrastructure among skier and snowboarders.

Previous empirical studies (Ditton et al., 2005; Kerins et al., 2007; McIntyre & Pigram,

1992; Needham et al., 2007) favoured the use of a multi-dimensional method over an

additive index on the basis that it was a more appropriate method for recognizing the

complex nature of the variability in individual recreation specialization indicators. Various

cluster analytic procedures have been recommended as appropriate methods of

operationalising this multi-dimensionality. In this study, the K-Means Cluster Analysis

procedure was used preferentially because of the large number of cases in the sample (SPSS

16.00). Results of the cluster analysis sub-divided skiers into three, and snowboarders into

two approximately equal sized groups.

5.2.1: Skier Clusters

There were some similarities among all three levels of specialization within the skier group.

Happo-One was considered to have performed well on the lessons category for all three

clusters. As Happo-One prides itself on having one of the best ski schools in the country,

such a result confirms this resort perception. Additionally, the categories of tourist

information services and resort shops were considered a "low priority" for all three groups.

The low specialized skiers had the most concerns with three categories (slopes, slope

services and equipment rentals) falling within the "concentrate here" quadrant. The high

specialized skiers had concerns for two categories (slope services and restaurants), while the

only attribute category falling within the "concentrate here" quadrant for the medium specialized skiers was medical services.

Low and high specialized ski cluster: slope services.

Initial (skier IPA) analysis revealed that the Happo-One managers need to improve their slope services for skiers by improving piste information and the availability of toilets. However, subsequent analysis within specialization groups revealed that while availability of toilets was a common concern for both low and high groups, piste information was a low specialized concern only. Furthermore, the initial analysis of skiers revealed that grooming was a success, when in fact the low specialized skiers perceived it as a concern. This information can be useful for the managers in prioritizing areas of change, and demonstrates the value of subsequent analysis using recreation specialization to better understand the customers' needs. Initial improvements in piste information and grooming (i.e. low specialized concern only) should be focused around the easier slopes where a higher concentration of low specialized skiers is found.

Low specialized ski cluster: slopes and equipment hire.

Exclusive concerns for the low specialized skiers were slopes and equipment rentals. Low specialized skiers expressed concern in the slopes category in the areas of price, lift ticket options, snow conditions, slope variety and lift speed. These findings may be explained by the fact that Happo-One has mostly advanced terrain and has few beginner areas and thus is not generally appropriate for the lower specialized skiers. Prices are also relatively high compared to surrounding ski fields and the beginner areas are serviced by older ski lifts, which run rather slowly as compared to more modern lifts such as the detachable quad chairs

servicing the advanced areas. This likely creates a disparity between price and value for money in the minds of the lower specialized skiers.

Further analysis of the equipment rentals category revealed three attributes (price, quality and range of equipment, and the exchangeability of equipment) of concern for the low specialized skiers. For both the medium and high specialized skiers, equipment rentals were considered a "low priority". This information is not surprising and is consistent with specialization literature (Ewert & Hollenhorst, 1994), which suggests that as recreationists progress along the specialization continuum, they are more likely to own their own equipment and therefore depend less on equipment hire.

Medium specialized ski cluster: medical services.

Medical service was the only category in the "concentrate here" quadrant for the medium specialized skiers. Upon further inspection, it was noted that in the medical service category, none of the specific attributes actually fell within the "concentrate here" area. These results show the importance of performing two levels of analysis. Analysis of the attribute categories gives managers an idea how customers feel overall, but it is the analysis of the specific attributes which provides the details for remediation. In the case of the medical services category for this ski group, more research is needed to allow customers an opportunity to articulate their concerns.

High specialized ski cluster: restaurants.

The initial analysis by sport revealed that the restaurants category was a concern for both skier and snowboarders. Subsequent analysis by level of specialization revealed that this category was in the "concentrate here" quadrant for the high specialized skiers and in the "low priority" area for the low and medium specialized skiers. It is important to note that

while in the "low priority" area, the placement of the restaurant category in both of these cases was near the "importance" axis. Overall, it is evident that the restaurants category is a concern for the skier clusters and segmentation by specialization suggests that is marginally more of a concern for the high specialized skiers.

5.2.2: Snowboarder Clusters

Snowboarders were sub-divided into two specialization clusters (low and high). Like the skiers, most attribute categories were lower in average in satisfaction with performance for the low specialized cluster when compared to the high specialized cluster. The one exception (above average in satisfaction with performance), in the case of the low specialized snowboarders, was accommodation. These data indicated that as a whole, the snowboarders with lower levels of specialization were less satisfied on average with most attributes, than the high specialized snowboarders. As discussed previously, Happo-One has an above average amount of high level terrain, and this could be contributing to the lower levels of satisfaction amongst lower specialized users overall.

Both high and low specialized snowboarders placed low importance on shops, information services, and equipment rentals. However, satisfaction with performance varied between the two groups, in that, the high specialized snowboarders reported a higher level of satisfaction with all three categories than the low specialized snowboarders, who reported low levels of satisfaction with these same categories.

The resort performed well on lessons overall, as they did with the skiers. High specialized snowboarders reported lessons within the "keep up good work" area. The low specialized snowboarders however, placed lessons within the "low priority" area.

Low and high specialized snowboard clusters: slopes.

One attribute category that was a concern for both sub-groups of snowboarders was the slopes category. Despite similar low ratings, there were some differences in the specific attributes they rated poorly within this broad category. The low specialized snowboarders were concerned about the price of lift tickets, lift ticket options, overall quality of snow, and the linkage of the slopes, two of which (price and snow quality) were shared with high specialized snowboarders. Three other attributes in the "concentrate here" quadrant for the high specialized snowboarders were speed of lifts, hours of operation and the availability of off-piste terrain.

The issue of off-piste use in Japan has become a controversial topic in recent years. There has been a recent growth in Japan in the number of skiers and snowboarders venturing out-of-bounds (off-piste) in search of powder snow conditions (Personal Communication, 2007). However, there has also been a rise in ski-related deaths and injuries due to avalanches. As a result, local ski resorts have a negative perception of off-piste riding and have consequently increased preventative measures to deter skiers and snowboarders from venturing into these areas. These actions could lead to lower levels of satisfaction as many advanced skiers and snowboarders desire such terrain, which is controlled and made available in most other world class ski destinations (Tourism British Columbia, 2006). Recent efforts, from area outfitters, to educate ski resorts on the safe provision of skiable terrain in avalanche prone areas have been met with considerable resistance from local resorts. This is topic which warrants more attention in future research.

Price of lift tickets was more of a concern for snowboarders in general than for skiers. This is evident as both low and high specialized snowboarders rated price of tickets in the

"concentrate here" quadrant. This is consistent with previous research comparing skiers and snowboarders (Englin & Moeltner, 2004; Thapa, 1996). Both of these studies showed that snowboarders placed a higher importance on price and were more responsive to price changes compared to skiers. Considering the age gap and income difference between the skiers and snowboarders in the current study, where skiers are, on average, more than 15 years older and report higher incomes (44.9% of skiers and 19.4% of snowboarders earn more than $45,000 CAN), these findings are consistent.

Low specialized snowboard cluster: restaurants and medical services.
Restaurants and medical services were in the "concentrate here" quadrant for the low specialized snowboarders; whereas, the former fell within the "low priority" area for the high specialized group and the latter in the "keep up good work" quadrant. Only three (price, food quality, and variety of food) of the nine restaurant attributes were located in the "concentrate here" quadrant. Overall, the resort performed well on five attributes and only one (English ability of staff) was in the "low priority" area.

All three medical service attributes (attitude and personality of employees, knowledge of insurance problems, and English ability of employees) were located in the "concentrate here" quadrant. These results differ from the medium specialized skiers, discussed previously, who expressed an overall concern but did not specify particular attributes in the "concentrate here" quadrant. As suggested, medical services is a particularly important issue from a risk management perspective and thus requires further research in both sports.

High specialized snowboard cluster: slope services.
Slope services are the final category of concern for the snowboard group. The high specialized snowboarders rated this category in the "concentrate here" quadrant. In common

with the low and high specialized skier segments, the provision of toilets was the main concern. Also, low specialized skiers and members of the high specialized snowboarders cluster expressed a similar concern with regard to grooming services. Unique to this group, however, were concerns about snow making and provision of a terrain park.

A terrain park is an area of a ski resort which has various obstacles and jumps to perform freestyle tricks. It is not surprising that this is a concern for the high specialized snowboarders, as Happo-One removed their terrain park several years prior to the time this research was conducted. Snowboarders are traditionally the main users of terrain parks and have demonstrated a distinct preference for having them available on resorts (Thapa, 1996; Vaske et al., 2004). The current research reinforces this preference, as high specialized skiers did not put as much importance (average of 4.91 out of 7.0) on the terrain park as did the high specialized snowboarders (5.52). However, these data may not reflect recent technological advances in skiing which have prompted skiers elsewhere to begin to make more use of terrain parks. What this current study shows is that there is a desire among high specialized snowboarders to be able to access a terrain park and the growing demand evident in other resorts amongst skiers may make its construction more cost effective.

5.2.3: Recreation Specialization and the IPA: An Overview

In summary, using recreation specialization to further segment the skiers and snowboarders at Happo-One was an enhancement on the initial IPA. The results supported the literature on recreation specialization which suggested that specialization affects recreationists' preferences and levels of satisfaction.

Overall, respondents lower in specialization, reported consistently lower levels of satisfaction with the performance of the resort in providing services. As discussed, this may

be a result of Happo-One being perceived as catering to more highly skilled skiers and snowboarders with its abundance of difficult terrain. Additionally, many of the beginner areas at Happo-One appear to be lacking in the infrastructure needed to satisfy participants in either sport.

While there were some similarities between the specialization groups, there were also some clear differences which can be used to prioritize management strategies. The observations made on similarities and differences in the various specialization clusters enables further refinement of the information for managers and clarifies the nature of the changes required to better meet customer needs.

5.3 Summary

Despite the relatively informative results of this study and the insights it provided for improving infrastructure and services at Happo-One and potentially other similar resorts, a word of caution is merited. In a review of IPA literature, Oh (2001) explains that a common concern voiced in the IPA literature is that this approach is too simplistic a method on which to base management intervention, as it does not incorporate dimensions of competition and expectation. In this regard, the IPA should be considered an initial step in understanding customers' needs. Managers basing strategies on the results of the IPA should be cautious in implementing costly changes without further research. A more appropriate approach may be to adopt an adaptive style of management which views management interventions as experiments and links them with monitoring (Lee, 1993; Berkes, Colding & Folke, 2003). Consequently, the IPA as a monitoring tool, in combination with an adaptive approach, does provide a potentially powerful strategy for increasing managers' effectiveness in responding

to users' needs and reducing the costs and consequences associated with failed or

inappropriate interventions.

5.4 Limitations

Little input was provided from Happo-One managers regarding survey design. An attempt

was made to consult with managers on which attributes to include in the analysis, but

minimal insight was provided. This may have resulted in the omission of important

attributes or inclusion of irrelevant ones. Specifically, the accommodation category has little

relevance as most hotels within the resort are separately owned, so the information presented

within may not apply to the resort. This information can assist hotel owners in the area, but

not the resort managers.

Another limitation regarding the survey design was the omission of questions asking

overall satisfaction with performance for each attribute category and the resort as a whole.

Each individual attribute was given a rating, but it would have been beneficial to have asked

participants about their overall satisfaction with the performance and importance of each

category separately. This information could have been used instead of averaging attributes

within each category.

Participants in this study were limited to those over the age of 18 years. The rationale

for this sampling limitation was to avoid the need to seek signed consent from parents or

guardians of minors. Despite this limitation, the age distributions of the skier and

snowboarder samples in this study were the same as those quoted in the literature for Japan

as a whole (JPC-SED, 2006).

It is important to note the general limitations of the survey design. Qualitative

responses assessing the importance of and satisfaction with services and facilities of Happo-

One are lacking, which limits the interpretation of the results and would be a useful area of further research within the various categories recognised to be of concern in this study. As discussed previously, the results of this research should only be taken as suggestions for areas of the resort which are perceived as deficiencies by customers. This caution is particularly important given the relatively small size of the segments (e.g., snowboarder specialization segments). The sample sizes, while appropriate for statistical analysis, may be insufficient to generate statistically reliable measures for the analyses of multiple attributes. With this caveat, the results nonetheless provide managers with directions on which to base areas to target and conduct further research to increase service quality.

6.0 Conclusions

This research confirms that Happo-One is a ski resort predominantly used by skiers. The resort is however being used by snowboarders, usually of a low skill level. In light of this information, some questions are raised regarding the future of snowboarding at Happo-One. Managers of Happo-One may want to conduct more research to understand why the snowboarders are visiting their resort and if visitation is on the rise. Managers need to investigate more on the cost/benefit of catering more to snowboarders.

Happo-One clearly performed best in the lessons category. Both sporting groups and all but one (the low specialized snowboarders) specialization cluster reported both high levels of importance and satisfaction with performance in this area. Happo-One has an extensive ski school with many programs and instructors which are well known as one of the best ski schools in Nagano and Japan. If Happo-One wants to make improvements in this area, further research to assess the specific deficiencies as perceived by the low specialized snowboarders would be helpful.

Restaurants, slope services and slopes consistently performed poorly and are suggested as to priorities for attention. Price, quality and variety of food were the restaurant attributes which were foci of concern. For the slope services category, the availability of toilets, grooming and piste information were the most common issues. Rebuilding the terrain park was also identified as being an area which managers might want to consider based on the more highly specialized snowboarders' needs. For the slopes category, four attributes (lift ticket prices, ticket options, quality of snow, and the speed of lifts) were the biggest concern. All identified more commonly by the snowboarders. High specialized snowboarders also expressed a desire for improvements in the availability of off-piste terrain.

Happo-One performed well on accommodations, but this area was usually identified as of low importance. Depending on sport and level of specialization, accommodations were usually considered "possible overkill" with occasional placement within the "low priority" area. Considering many of the hotels in the area are separately owned, this should not be a big concern for resort managers. If anything, there is an oversupply of accommodation in the area and, as a result many have closed since the 1998 Winter Olympic Games.

Areas of "low priority" generally included the equipment rental, shops and tourist information services. However, while shops and tourist information services were consistently placed within the "low priority" area, equipment rental was a concern for the low specialized skier. Recommendations for this area include reduction in price of rentals, improvement in quality of equipment and flexibility in ability to exchange equipment.

The final category included in this analysis is medical services. Results are ambiguous and call for further research. Low specialized snowboarders reported all three attributes in the "concentrate here" quadrant. The only other cluster reporting medical services as a concern was the medium specialized skiers, however inspection of the specific attributes found none in the "concentrate here" quadrant. Considering the risk management implications, this is also an area that resort managers will want to conduct more research.

The use of the importance-performance analysis at Happo-One has proven effective in recognizing the resort's strengths and weakness. It should be noted though, that the IPA has its limitations and should be considered an initial step in developing management strategies. The use of segmentation is a definite enhancement to the IPA and confirms past research. Skiers and snowboarders are unique and discrete samples, and should be treated as such when attempting to understand ski resort customer needs. Use of recreation specialization

demonstrated that there were key differences among participants within the same sporting group and is beneficial for resort managers as it provides greater insight into how well Happo-One is providing its services and infrastructure.

In conclusion, the combination of IPA, sport and specialization segmentation provided useful insights on the management of the Happo-One resort specifically. However, the approach used in this study and its results are likely to be of broader significance for the industry as a whole, as few such detailed studies of the services and infrastructure of ski resorts have been conducted elsewhere in recent times. The marketing implications of this study are also significant to an industry facing rising travel costs, more variable snow and weather conditions, and a significant decrease in participation world-wide.

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Appendix 1: Survey (English Version)

<u>Customer Satisfaction Survey</u>

Section [A] – Participation in Your Sport.

Sport

Q1.   Which activity do you usually participate in?

☐ Skiing ☐ Snowboarding

Q2.   How many years have you been participating in this sport? _____ years.

Q3.   How important is this sport to you?

☐ Not at all important ☐ Somewhat important ☐ Important ☐ Very Important ☐ Extremely Important

Q4.   How important is it for you to spend time doing this sport compared to other sports you participate in?

☐ Not at all important ☐ Somewhat important ☐ Important ☐ Very Important ☐ Extremely Important

Skill Level

Q5.   What is your skill level in this sport?

☐ Beginner ☐ Intermediate ☐ Advanced ☐ Expert

Q6.   How important is it for you to develop your skills in this sport?

☐ Not at all important ☐ Somewhat important ☐ Important ☐ Very Important ☐ Extremely Important

Frequency

Q7.   Approximately how many different ski resorts have you been to in the past five years?
In Japan_____   Overseas_____

Q8.   Approximately how many times have you been to Happo-One? _____

Q9.   Approximately how many times per year do you participate in this sport? _____

Equipment

Q10.   Do you own your own equipment?

☐ Yes (Please continue at Q11) ☐ No (Please skip Q11 and continue at next section)

Q11.   Approximately how much money do you spend annually on purchase of equipment for this sport? _____
(Example: Skis, Snowboard, Bindings, Goggles, Clothing etc.)

Section [B] – Facilities and Services

Listed below are many of the facilities and services found at Happo-One.

Using the scale where:

7 = Extremely important/satisfied
4 = Of moderate importance/satisfaction
1 = Of no importance/satisfaction
0 = No opinion/not used

Could you please circle the number which best indicates your estimation of both the IMPORTANCE to you, and your SATISFACTION with, the facility or service at Happo-One. An example is given below:

EXAMPLE

IMPORTANCE   **SATISFACTION**
1 2 3 4 5 (6) 7   0   Quality of snow on the piste   1 (2) 3 4 5 6 7   0

In this example, the person states that 'the quality of snow on the piste' is **very important (6)** to him/her but he/she is **not satisfied (2)** with the 'quality of snow on the piste'.

Now, please give your estimation of the following services and facilities at Happo-One

IMPORTANCE	**Tourist Information Services**	**SATISFACTION**
1 2 3 4 5 6 7 0	Knowledgeable Staff	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Clarity of Resort Brochures	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	English Language Ability of Staff	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Readability of Signs	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Attitude & Personality of Employees	1 2 3 4 5 6 7 0

	Accommodation	
1 2 3 4 5 6 7 0	Attitude & Personality of Employees	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Quality of Food	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Availability of Room Amenities	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Comfortable Bed	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	View	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Atmosphere	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Proximity to Lifts	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Availability of Hot Spring	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	English Language Ability of Staff	1 2 3 4 5 6 7 0

	Restaurants & Bars at Happo-One	
1 2 3 4 5 6 7 0	Price	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Quality of Food & Drinks	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Efficient Service	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Attitude & Personality of Employees	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	English Language Ability of Staff	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Clean Accessible Toilets	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Plenty of Seating	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Choice and Variety of Food	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Cleanliness of Establishment	1 2 3 4 5 6 7 0

Could you please circle the number which best indicates your estimation of both the IMPORTANCE to you, and your SATISFACTION with, the facility or service at Happo-One.

IMPORTANCE	Equipment Rental Shops	SATISFACTION
1 2 3 4 5 6 7 0	Price	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Quality & Range of Equipment	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Ability to Exchange Rented Equipment	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Attitude & Personality of Employees	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	No Queuing	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	English Language Ability of Staff	1 2 3 4 5 6 7 0

Ski/Snowboard Lessons

IMPORTANCE		SATISFACTION
1 2 3 4 5 6 7 0	Quality of Lessons	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Size of Group In Lesson	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Range of Lessons Available	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	English Language Ability of Instructor	1 2 3 4 5 6 7 0

Medical Services in Resort

IMPORTANCE		SATISFACTION
1 2 3 4 5 6 7 0	Attitude & Personality of Employees	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Knowledge of Insurance Problems	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	English Language Ability of Staff	1 2 3 4 5 6 7 0

Shops/Souvenirs

IMPORTANCE		SATISFACTION
1 2 3 4 5 6 7 0	Price of Merchandise	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Quality of Merchandise	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Variety of Merchandise	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Attitude & Personality of Employees	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	English Language Ability of Staff	1 2 3 4 5 6 7 0

Slopes

IMPORTANCE		SATISFACTION
1 2 3 4 5 6 7 0	Price of Lift Ticket	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Variety of Lift Ticket Options	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Variety of Slopes	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Number of Lifts	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Limited Queuing	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Off-Piste Skiing/Snowboarding	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Well-Linked. Well-Planned	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Speeds of Lifts	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Skiing Hours	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Quality of Snow on Piste	1 2 3 4 5 6 7 0

Slope Services

IMPORTANCE		SATISFACTION
1 2 3 4 5 6 7 0	Grooming of Pistes	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Piste Information	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Snow Making	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Maintenance of Lift Services	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Availability of Toilets	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Attitude & Personality of Lift Staff	1 2 3 4 5 6 7 0
1 2 3 4 5 6 7 0	Ski/Snowboard Park	1 2 3 4 5 6 7 0

Section [C] – Other Information.

Q1.   What is your gender? ☐ Male ☐ Female

Q2.   What is your age? _____

Q3.   With whom are you visiting Happo-One?

☐ Tour Group ☐ Family ☐ Friend(s) ☐ Alone ☐ Girlfriend/Boyfriend

Q4.   Do you live in Japan?
   Yes   **No** ⟶ What country do you presently live in? _____ (Please continue at Q5)

4a.   How long have you lived in Japan? _____ years

4b.   What prefecture do you presently live in? _____

Q5.   What is your annual income? _____

☐ 0-1 million yen ☐ 1-2 million yen ☐ 2-3 million yen ☐ 3-4 million yen ☐ 4-5 million yen

☐ more than 5 million yen

Q6.   Are you staying at a hotel during this visit to Happo-One?

☐ Yes ⟶ Is your hotel in Happo-One resort? ☐ Yes ☐ No

☐ No (Thank you taking the time to finish this survey.)

Comments: _____

_____
_____
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_____
_____

Thank you for taking the time to complete this survey.

Appendix 2: Survey (Japanese Version)

<u>顧客満足度調査</u>

セクション[A] – スポーツとの関わり
あてはまる□にチェックしてください。

スポーツ
Q1.   普段どちらのスポーツをしますか？
　　　□スキー□スノーボード

Q2.   そのスポーツを始めて何年になりますか？ _____ 年

Q3.   あなたにとってそのスポーツはどれだけ重要なものですか？
　　　□全く重要ではない □ まあまあ重要である □重要である □とても重要である □最も重要である

Q4.   あなたの行う他のスポーツに比べてスキー/スノーボードはどれだけ重要なものですか？
　　　□全く重要ではない □ まあまあ重要である □重要である □とても重要である □最も重要である

スキルレベル
Q5.   このスポーツにおけるあなたのスキルレベルはどれくらいですか？
　　　□初級 □ 中級□上級 □エキスパート

Q6.   このスポーツのスキルを上達させることはあなたにとってどれだけ重要なことですか？
　　　□全く重要ではない □ まあまあ重要である □重要である □とても重要である □最も重要である

頻度
Q7.   過去5年間でいくつ位の違うスキー場に行きましたか？
　　　日本　約_____ヶ所　　　　海外　約_____ヶ所

Q8.   このスキー場に約何回きたことがありますか？　約_____回

Q9.   一年間で約何回このスポーツをしますか？　約_____回

道具（ギア）
Q10. 自分の道具を一つでも持っていますか？（スキー板、スノーボード、ブーツなど）
　　　□　はい(Q11に続いてください) □いいえ(Q11はとばして次のセクションに進んでください)

Q11. このスポーツ用品のために約どれくらいのお金を費やしますか？　　約_____円
　　　（スキー板、スノーボード、ビンディング、ゴーグル、ウェアなど）

セクション**[B]** – 施設/設備とサービス

以下のリストはこのスキー場にある施設、サービスです

各数字は以下のように評価されます

7 = 最も重要である/大変満足している
4 = まあまあ重要である/まあまあ満足している
1 = 全く重要でない/全く満足していない
0 = 特に意見なし/利用したことがない

各施設/設備またはサービスがあなたにとってどれだけ重要であるか（左に **1** 箇所）、また、あなたがそれらに対してどれだけ満足しているか（右に **1** 箇所）をそれぞれあてはまる数字に〇をしてください。次の例を参考にしてください。

例；

重　要　度
1 2 3 4 5 ⑥ 7　0　　　コース上の雪質　　　　　満　足　度
　　　　　　　　　　　　　　　　　　　　　　　　　　1 ② 3 4 5 6 7　0

この例では、「雪質」は大変重要(6)であるが、あまり満足していない(2)ということを意味します。

それでは、このスキー場における各施設/サービスの評価をしてください。

重　要　度	観光情報サービス	満　足　度
1 2 3 4 5 6 7　0	スタッフの観光知識	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	スキー場のパンフレットの明確さ	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	スタッフの英語力	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	サインの読みやすさ	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	スタッフの対応	1 2 3 4 5 6 7　0

	宿泊施設	
1 2 3 4 5 6 7　0	従業員の対応	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	食事のクオリティー	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	アメニティーグッズの充実度	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	ベッド/布団の心地よさ	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	眺め・景色	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	室内の雰囲気	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	リフトまでの距離	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	温泉の有無	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	従業員の英語力	1 2 3 4 5 6 7　0

	レストラン・カフェテリア	
1 2 3 4 5 6 7　0	料金	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	食べ物やドリンクのクオリティー	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	効率的なサービス	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	従業員の対応	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	従業員の英語力	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	清潔な利用しやすい洗面所	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	座席・テーブル数	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	メニューの豊富さ	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	店内の清潔さ	1 2 3 4 5 6 7　0

各施設/設備またはサービスがあなたにとってどれだけ重要であるか（左に 1 箇所）、また、あなたがそれらに対してどれだけ満足しているか（右に 1 箇所）をそれぞれあてはまる数字に〇をしてください。

重　要　度	レンタルショップ	満　足　度
1 2 3 4 5 6 7　0	料金	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	ギア(道具)の種類の豊富さとクオリティー	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	ギア(道具)の交換のし易さ	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	従業員の対応	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	待ち時間	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	従業員の英語力	1 2 3 4 5 6 7　0

	スキー/スノーボード教室	
1 2 3 4 5 6 7　0	レッスンの質	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	グループの構成(人数など)	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	レッスン内容(種類)の充実度	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	インストラクターの英語力	1 2 3 4 5 6 7　0

	スキー場内の救護施設	
1 2 3 4 5 6 7　0	スタッフの対応	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	スタッフの保険に関する知識	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	スタッフの英語力	1 2 3 4 5 6 7　0

	お土産ショップ	
1 2 3 4 5 6 7　0	商品の値段	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	商品のクオリティー	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	商品の種類の豊富さ	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	店員の対応	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	店員の英語力	1 2 3 4 5 6 7　0

	コース	
1 2 3 4 5 6 7　0	リフト券の値段	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	リフト券の種類	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	コースの種類・数	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	リフトの数	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	リフトの待ち時間	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	整備されていないコースでのスキー/スノーボード	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	コースの設計	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	リフトのスピード	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	営業時間	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	コース上の雪質	1 2 3 4 5 6 7　0

	コース上のサービス	
1 2 3 4 5 6 7　0	コースの整備	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	コースの情報(地図の掲示、配布など)	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	人口雪	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	リフトの整備	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	コース上にある洗面所へのアクセス	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	スタッフの対応	1 2 3 4 5 6 7　0
1 2 3 4 5 6 7　0	スキー/スノーボードパーク	1 2 3 4 5 6 7　0

セクション [C] – その他の情報

Q1.   あなたの性別は？   ☐ 男性 ☐ 女性

Q2.   おいくつですか？   _____ 歳

Q3.   だれとこのスキー場に訪れていますか？

☐ ツアー/サークル/合宿 ☐ 家族 ☐ 友達 ☐ 一人 ☐ 彼氏/彼女

Q4.   日本に住んでいますか？
       はい   いいえ ───▶ | 現在どこの国に住んでいますか？_____ | (Q5 に進んでください) ─┐

┌───┐
│ 4a.   日本に住んでどれくらいになりますか？_____ 年   │
│   │
│ 4b.   現在何県に住んでいますか？   _____ 県/都/府/道 │
└───┘

Q5.   年収はどれくらいですか？   ◀────────────────────────────┘

☐ 0～100 万円 ☐ 101～200 万 ☐ 201 万～300 万 ☐ 301 万～400 万 ☐ 401 万～500 万
☐ 501 万以上

Q6.   このスキー場に滞在の間、ホテルもしくは民宿などの宿泊所に泊まっていますか？
☐ はい ──────────────▶ その宿泊所はこのスキー場内にありますか？☐ はい ☐ いいえ
☐ いいえ

Comments:_____
_____
_____
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_____

ご協力いただきましてありがとうございました

Appendix 3: Cover Letter (English Version)

Lakehead
U N I V E R S I T Y

School of Outdoor Recreation, Parks & Tourism

Tel (807) 343-8759
Fax (807) 346-7836

Happoone

Dear Potential Participant:

I would like to invite you to participate in a Masters Degree research study I am conducting.   My name is Michael Scorgie and I am affiliated with Lakehead University in Canada. This research is in cooperation with Happo-One ski resort.

The intent of this research project is to investigate participant's satisfaction with various services and facilities at Happo-One. To accomplish this goal, I would like to ask you to complete a questionnaire concerning your participation in winter alpine sports, your satisfaction with the services and facilities at Happo-One and some general information about yourself. This will require approximately 15 minutes of your time and participation in this research does not involve any foreseeable risks.

Your participation in this study is voluntary and you may withdraw from participation at anytime. You may also decline to answer any individual questions in the survey.

Participation in this survey is completely anonymous, so please do not write your name or any other identifying information (e.g., your address) on the survey. All information you provide will be presented as statistical results in reports or publications arising from this study. No information you provide will be able to be assigned to you directly. Data collected from this survey will be securely stored at Lakehead University for a period of seven years. To participate in this survey you must be at least 18 years old and consent to participate.

The results of this research will assist the managers of Happo-One in developing the services and facilities to better meet customers' needs.

If you have any questions or concerns or if you would like to receive a copy of the report, please do not hesitate to contact me at (090-1868-9837) or at mdscorgi@lakeheadu.ca. You may also contact Dr. Norm McIntyre at 01-807-343-8963 or at nmcintyr@lakehadu.ca.

Thank you for your cooperation.

Sincerely,

Michael Scorgie

CELEBRATING **40** YEARS

Appendix 4: Cover Letter (Japanese Version)

Lakehead
U N I V E R S I T Y

School of Outdoor Recreation, Parks & Tourism

Tel (807) 343-8759
Fax (807) 346-7836

Happoone

アンケートにご協力いただく皆様へ

　このアンケートは、私が行っている修士過程の卒業研究にご協力をお願いするものです。私はカナダのレイクヘッド大学のマイケル・スコージーと申します。この調査は八方尾根スキー場のご協力の下で行っています。

　八方尾根の各種サービスや施設に関する利用者の満足度を調査しております。冬のアルペンスポーツの実施状況、八方尾根でのサービスや施設に対する満足度、回答者の一般情報等についておよそ15分のアンケートにご記入頂くものです。

　これは、皆様のご好意の参加によるものなので、途中で止めてもかまいません。また、個人的な質問には答えなくても結構です。

　このアンケートは完全に無記名ですので、個人を特定できる情報、氏名・住所等は記入しないで下さい。この調査によって収集されたデータはレイクヘッド大学で7年間保管されますが、収集した情報は、レポートや出版物の中で統計として使用されるだけで、個人を特定できるようなものではありません。また、このアンケートに回答する方は、18歳以上で参加に同意された方に限ります。

　このリサーチ結果は、八方尾根のサービスや施設を、よりお客様のニーズに合うように向上させる為に利用されます。

　質問・懸案等、或いはこの研究レポートのコピーが必要な場合には、
下記までお気軽にお問い合わせください。

マイケル・スコージー　　　　　TEL.090-1868-9837　　e-mail : mdscorgi@lakeheadu.ca.
ノーム・マッキンタイヤ博士　　TEL.01-807-343-8963　e-mail : nmcintyr@lakeheadu.ca.

　ご協力よろしくお願い申し上げます。

マイケル・スコージー

CELEBRATING 40 YEARS

Appendix 5: Signed Consent Form (English Version)

I, (print name) _____, have read and understood the covering letter of the study by Michael Scorgie on *The Influence of Recreation Specialization on Perceptions of Service Quality at a Japanese Ski Resort*. I agree to participate in this study by completing a survey. My signature also indicates that I understand the following:

1. I am a volunteer and can withdraw at any time from the study.
2. There is no apparent risk of physical or psychological harm.
3. The data I provide will be confidential.
4. I will receive a summary of the project, upon request, following the completion of the project.

I have received explanations about the nature of the study, its purpose, and procedures.

_____

Signature of Participant   Date (dd/mm/yyyy)

Appendix 6: Signed Consent Form (Japanese Version)

私、(氏名)＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿は、マイク・スコージーによる研究、「*The Influence of Recreation Specialization on Perceptions of Service Quality at a Japanese Ski Resort*」の概要を読み、内容を把握したうえで、この研究に関するアンケートに協力することに同意します。また、以下の事項を理解し了承し、同意したことを証し、ここに署名します。

1. ボランティアでこのアンケートに参加し、途中辞退することができる。
2. このアンケートによって肉体的、精神的被害にあうことはない。
3. 提供する情報、データは全て内密に扱われ、外部に漏れることはない。
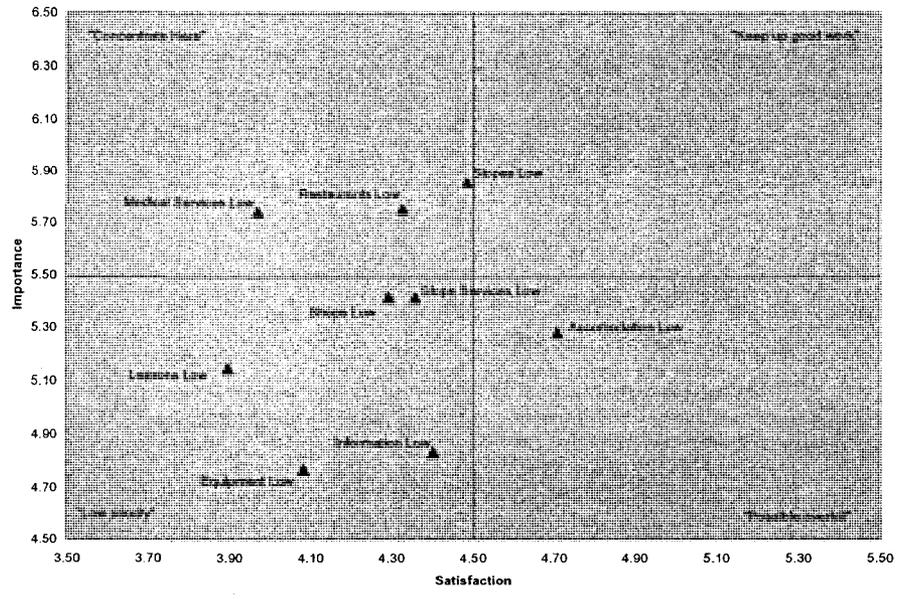4. 希望すれば、研究結果を受け取ることが出来る。
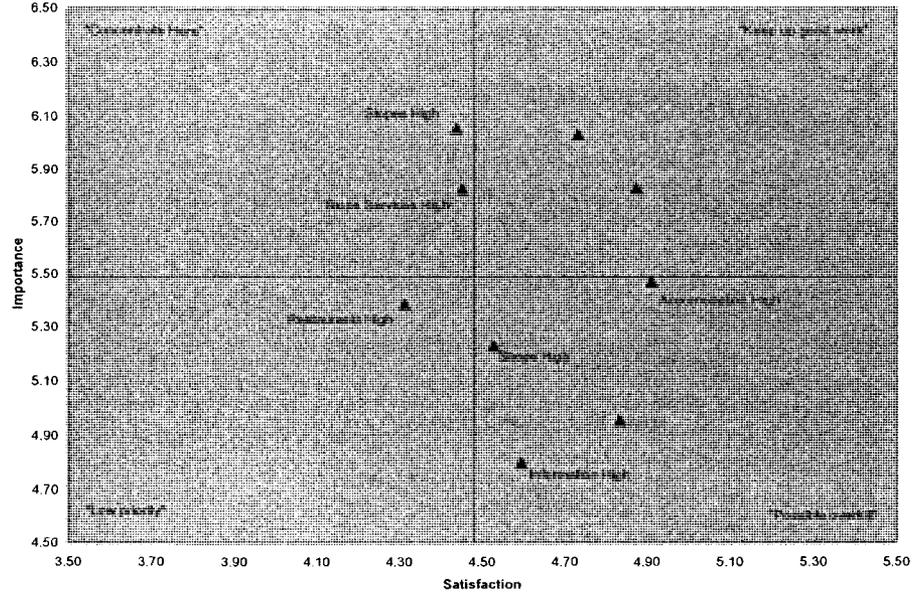

署名　　　　　　　　　　　　　　日付　　　年　月　　　日

Appendix 7: Importance-Performance Ratings for the Nine Ski Resort Attribute Categories –

Skiers Segmented by Levels of Specialization

Low Specialization

Medium Specialization

High Specialization

Appendix 8: Importance-Performance Ratings for the Nine Ski Resort Attribute Categories -

Snowboarders Segmented by Levels of Specialization

Low Specialization

High Specialization