

## Targeting Rural Tourists in the Internet: Comparing Travel Motivation and Activity Based Segments

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**Abstract.** This study aims to compare activity based segmentation and travel motivation segmentation from the perspective of information search behaviour and online use behaviour by comparing segment heterogeneity. The data were collected from users of three Finnish rural tourism websites with 1754 completed and usable questionnaires to create segmentation solutions based on travel activities and motivations using hierarchical cluster analysis and then comparing the results. The results indicate that travel activities are more useful than travel motivations in finding heterogeneous segmentation solutions, making the travel activity segments more heterogeneous than travel motivation segments as regards their information search behaviour and Internet use. The results suggest that in this era of Internet marketing travel activities are a better segmentation base than travel motivations in order to target different market segments as activities form more heterogeneous segmentation solution.

**Keywords:** segmentation, travel motivations, travel activities, ICT, Internet, rural tourism

### Introduction

Every day tourism businesses face the question of where they can find customers. The question however is not only where the customers are but also how to reach them. Answers for these questions can very seldom be found from the tourism research literature. A stream of market segmentation research has been conducted in the past but it's applicability in finding and reaching customers is limited at best. When looking at the majority of earlier market segmentation literature it can be seen that it has focused on finding the segmentation solutions instead of discussing how to reach different customer segments (Pesonen, 2013). Typically travel segments are compared by what different information channels they use when they are planning their holidays without going into details about their behaviour in different information channels, for example in the Internet. The Internet has typically been just one information channel among many. In reality that is not the case: since the year 2000 information and communication technologies (ICT) have transformed the tourism industry (Buhalis & Law, 2008) and especially how tourists search for information. Understanding the composition of information that is available for travellers online enables the development of successful marketing programs (Xiang & Gretzel, 2010).

Market segmentation has been a popular topic in marketing for several decades. Market segmentation, targeting, positioning, and micro-marketing are based on the consumer heterogeneity (Rondan-Cataluña & Rosa-Diaz, 2012). Different people have different needs to be satisfied by different solutions. The categorization of consumers into homogenous market segments became a topic of interest for marketing researchers in the middle of the 20<sup>th</sup> century in the context of business making. Dolnicar (2002, pp. 2) articulates the obvious potential behind the idea of segmentation: "Targeting a market segment characterized by expectations or preferences that mirror the destination strengths leads to competitive advantage. Once the segment that is optimally suited is identified and chosen as target, marketing action is adapted to attract the members of this segment and the product is customized to best possibly satisfy the needs of this particular group of individuals." Hence

segmentation of markets alone is not enough; the results of segmentation must be used to target the right customer segments with the most efficient marketing message. This targeting process has only rarely been studied in tourism related segmentation studies, where it has been more usual to characterize different segments according to the information channels used when planning a holiday. Nevertheless, this information search behaviour has not been thoroughly scrutinized in earlier market segmentation studies in tourism.

Segmentation in the ICT context has seldom been studied and discussed in the tourism research literature. Some studies have been presented comparing different tourist segments with respect to information search behaviour (Beritelli et al. 2007) or destination website functionality (Kim et al. 2007). Beritelli et al. (2007) state that research on information sources composition with reference to the degree of WWW inclusion is limited. However, as more and more consumers are using the Internet as an important source in their information search process, it becomes crucial to the success of a segmentation plan to be able to distinguish segments in their Internet use behaviour to better promote and market products on the Internet.

The context in this study is rural tourism. Typically rural tourism companies in Finland and all over the world are micro or SME businesses characterized by part-time tourism entrepreneurship, limited financial resources, limited entrepreneurial skills and a low level of commitment to long-term development of the businesses (Komppula, 2000). Limited financial resources make promoting and advertising the services offered very challenging. As the Internet offers an efficient and cheap way to reach customers its importance to rural tourism companies cannot be underestimated. Thus Internet marketing should be the ideal solution for rural tourism companies. Beldona and Cai (2006) state that the web provides a powerful tool to support key marketing strategies in rural tourism. Despite this the topic of marketing rural tourism products and services over the Internet has received very little attention in the literature so far.

A brief review of earlier studies indeed confirms that rural tourism businesses not using Internet marketing tools as effectively as possible. Pesonen (2011) studied how rural tourism businesses in Finland use Facebook and compared the results to larger tourism companies. Pesonen (2011) found out that rural tourism companies had unnecessary pages and a lot less activity on their Facebook pages compared to their larger competitors. Marketing in social media has been, as Pesonen (2011) states, a huge difficulty for rural tourism businesses. Beldona and Cai (2006) analyzed 50 rural tourism DMO websites in the United States. They found that rural tourism websites were largely driven by vertical contents, had only marginal promotional value in them and demonstrated poor interactivity.

It can be difficult for rural tourism companies to design their marketing message to best suit different channels. Should they focus on what motivates customers to travel and choose their holiday destination or on what tourists want to do during their rural holiday? What are the differences between different customer groups in different marketing channels? ICT use is critical for the success of rural tourism businesses (Polo Peña et al., 2011) and the results of this study are aimed to help rural tourism businesses to design their online marketing strategy.

This study aims to explore how market segments identified with two different segmentation bases, activity based and travel motivation based segmentation, differ from each other as well as study the connection between travel motivations and travel activities to Internet use behaviour. This study contributes to the market segmentation literature by comparing two different approaches, activity segmentation and motivation segmentation from the Internet

marketing perspective, and provides managerial insights for rural tourism companies regarding marketing their products to different customer groups in the Internet.

### **Literature Review**

There are two fundamental ways to segment individuals: a priori segmentation, where the grouping criteria are known in advance, and data-driven segmentation, a posteriori, or post hoc segmentation, where quantitative techniques of data analysis are used to derive a grouping (Dolnicar, 2002). A combination of the two can also be used. It is also possible to use data-driven segmentation on segments identified with data-driven methods in order to get deeper insights into the segment (Dolnicar, 2004). Data-driven segmentation has recently achieved popularity because a priori segmentation approaches no longer have much potential for competitive advantage (Dolnicar 2002). The problem with data-driven segmentation has been that it always produces a solution or range of solutions depending on the data analysis method. According to Moscardo et al. (2001), obtaining segmentation solutions in tourism research is relatively routine, but the question of solution adequacy is far from simple. One way to assess the value of a segmentation solution could be to use three evaluation criteria presented by Wilkie (1994): 1) members of the segment must be similar to other members of that segment as well as different from members of other segments, 2) members of the segment should also respond in a similar manner to a specific marketing mix, and 3) the organization in question should also be able to develop an efficient marketing mix for each segment (Wilkie 1994).

According to Mazanec (1992) any variable or bundle of variables that exhibit predictive power with respect to travel behaviour may be employed when conducting market segmentation. Several arguments have been presented about the superiority of certain segmentation bases and techniques over others (Frochot & Morrison, 2000). Some of the most popular data-driven approaches in tourism research are travel motivation segmentation (e.g. Boksberger & Laesser, 2009), benefit segmentation (e.g. Frochot, 2005) and activity based segmentation (e.g. Moscardo et al. 2001). In rural tourism especially travel motivation based segmentation has been very popular. Previously rural tourists have been segmented among others by travel motivations (Park & Yoon, 2009) or by the benefits they seek (Kastenholz et al. 1999; Frochot, 2005; Molera & Albaladejo, 2007). A combination of the two has also been used (Pesonen, 2012). Oh and Schuett (2010) explored a visitor segmentation approach based on rural visitor spending behaviour. From the literature review three major bases for segmentation can be identified: travel motivations (including benefit segmentation), destination attributes, and travel activities. In the literature it has been pointed out that the most effective predictor of tourist behaviour should be the behaviour itself, including benefits and motivations (Park & Yoon, 2009). Destination attributes have been found to be closely connected to travel motivations (Pesonen, 2012) but there is very little information on the connection between travel motivations and travel activities. Travel activities have also been found to be superior segmentation base compared to geographic origin (Moscardo et al., 2001) and there exists a very limited amount of research on activity based segmentation of rural tourists. All of these factors speak on the behalf of using travel motivations and travel activities as basis for segmenting rural tourists.

In data-driven segmentation studies segments have been validated by comparing variables not included among the segmentation variables. These have been traditionally socio-demographic factors (e.g. Park & Yoon, 2009), travel behaviour (e.g. Moscardo et al. 2001) or information sources (e.g. Molera & Albaladejo, 2007). Wind (1978) describes different situations where certain variables can be used to validate segmentation solutions and states that most of the

variables used in consumer behaviour literature can be considered as segment descriptors. Information sources in particular can be regarded as essential in order for managers to know the channels they can use to maximize the effectiveness of their marketing, which must be adapted to different segments using different channels and information.

There are some studies that have compared different segmentation bases and a number of studies comparing segmentation methods (e.g. Dolnicar & Grün, 2008; Dolnicar et al., 2011; Hruschka & Natter, 1999; Jiang & Tuzhilin, 2009). In this study the focus is on segmentation bases: why should customers be categorized in one way instead of another? In the earlier literature on the topic Moscardo et al. (2001) compared two segmentation approaches, the a priori geographic approach and the a posteriori activity approach, to visitors to the Wet Tropics region of Australia. They stated that despite the extensive and expanding literature on market segmentation several issues remain unresolved, one of them being that while obtaining clusters or segments of customers is common practice, the question of solution adequacy is far from simple. Moscardo et al. (2001) judged the superiority of activity segmentation over geographic segmentation based on eight criteria for successful segmentation (Morrison, 2002):

1. People within a segment should be similar to each other and segments should be as different from each other as possible (homogeneity).
2. Segments should be identified with a reasonable degree of accuracy (measurable).
3. Segments should be large enough in size to warrant separate attention (substantial).
4. An organization needs to be able to easily reach or access the identified segments (accessible).
5. Segments must require different marketing approaches. This suggests that the segments must differ on those characteristics which will be most relevant to the organization's services or products (defensible).
6. Segments must be suited to the products or services offered by the organization (competitive).
7. The segments identified need to be compatible with existing markets (compatible).
8. There must be some stability in the segments. The segments identified need to remain relevant over an extended period of time (durable).

Also Lin (2002) compared psychographic segmentation and demographic segmentation regarding consumer brand preference. Lin (2002) argues that demographic segmentation can only provide marketers with customers' demographic data such as age, gender and income whereas psychographic segments can clearly describe lifestyle and personality of consumers, explore consumption models, and identify relevant brand characteristics. However, Lin (2002) concludes that adopting both psychographic and demographic segmentations provides complete marketing segmentation information useful for deciding product positioning and increasing target market share.

There are also other studies comparing segmentation solutions and bases. Novak and MacEvoy (1990) compared Values and Life Styles (VALS) against the List of Values (LOV), based on the study by Kahle, Beatty, and Homer (1986). Novak and MacEvoy (1990) concluded that LOV alone is significantly less predictive than VALS alone but including demographic variables in the LOV model makes it a better predictor of segment membership than VALS.

Storbacka (1997) compared different market segmentation options based on existing customer base of two retail banks in the Nordic countries. Storbacka (1997) compared volume-based segmentation, profitability based segmentation, and segmentation based on relationship

volume and customer relationship profitability. Criteria that Storbacka (1997) used to assess customer base segmentation solutions were that the solution should be permanent enough to make development, implementation and evaluation of a new market strategy possible and should also be unambiguous so that customers can be placed only in one segment at a time. Also, belonging to a group should be pertinent to a specific buying behaviour and the implementation stage has to provide employees with a simple orientation to the foundation of the new strategies.

As can be seen from the literature review there are several reasons why one segmentation base should be used over another: it predicts segment membership better (Novak & MacEvoy, 1990), it satisfies the requirements for successful segmentation better (Moscardo et al., 2001) or provides companies better understanding of their customers (Storbacka, 1997).

In this study the focus is on the criterion presented by Wilkie (1994) that segments should differ from each other and different marketing mix should be able to be designed for each segment which is connected to the accessibility criteria presented by Morrison (2002). As the other criteria presented above are mostly assessed within the context of the organization in question and its aims and resources, they are not examined in this study. The focus on the superiority of one segmentation base against another has mainly been between data-driven and common sense segmentation methods (Moscardo et al. 2001). There is a large gap in the literature regarding the superiority of different data-driven methods in segmenting tourists. It is unknown, for example, how segments found using a psychological approach differ from segments found using a behavioural approach regarding the segmentation evaluation criteria. In the context of destination recommendation systems Gretzel et al. (2004) examined the activities travel personality segments are interested in and suggest that activities can serve as an efficient route for recommending potential places to visit for tourism regions with similar destinations.

Moscardo et al. (1996) studied the relationship between travel motivations, activities and features of preferred destinations and found consistent relationships between different concepts. According to Moscardo et al. (1996) there is a clear link between the vacation benefits travellers seek and the activities that they pursue. This link is an especially interesting topic in this study because here travel activities as well as travel motivations from the same respondents are examined and used as a basis for segmentation.

The Internet has become the most important source of information for many tourists (Buhalis & Law, 2008). Travellers now use the Internet to seek information regarding their holidays, plan what they are going to do, book flights, accommodation and car rental online and share their experiences in social media. In the majority of earlier travel motivation segmentation studies the Internet was only one information source among others if differences between information sources were measured at all. However, the Internet can be used in many other ways by tourists besides as an information source. According to the results of Jani et al. (2011) the Internet is more widely used as a source of travel information but less for travel purchases and travel information sources do indeed vary with personalities. In this study motivation segments are compared according to the online purchase of travel products, Internet channels used and how they spread electronic word-of-mouth (eWOM) by writing reviews of the products and services they buy online.

It is important to know who post reviews of their trips and accommodation on the Internet as they have many opportunities to affect other travellers' choices (Bonner & de Hoog, 2011). The Internet has facilitated linking tourism suppliers and potential tourists, making it possible for tourists to buy several different tourism products online without the help of travel agencies

(Buhalis & Law, 2008). Knowing who buys products online enables managers to design what kind of customers they should serve via their online stores.

Based on the gaps found in the literature review this study seeks to make a distinction between activity based and travel motivation based segments by comparing differences in information search behaviour and Internet use. The study contributes to segmentation theory by being the first study to compare activity segmentation and motivation segmentation from Internet usage point of view. The results are also useful for managers of rural tourism companies in planning their online presence.

### **Data and Methodology**

The data set was collected in Finland in 2011 during spring and summer using a convenience sample method. Banner advertisements leading to the online survey were placed on three large Finnish rural tourism websites. Users were required to click on the banners to access the questionnaire meaning that this is a self-selective survey. The first banner was placed on a website on March 4 and the last advertisement was removed from a website on August 31. Lots were drawn for a cottage rental gift certificate worth 400 Euros among all who left their contact information after completing the questionnaire.

Banner advertisements were clicked altogether 3,684 times, resulting in 2,131 submitted questionnaires. Altogether 164 questionnaires had to be discarded because of missing responses or the same respondents answering the questionnaire more than once, resulting in 1,967 usable questionnaires. In the second page of the questionnaire travel motivations were measured using Likert-type scale. Those respondents who did not answer all these travel motivation questions were removed from the analysis as the reliability of their responses is questionable. This resulted in the omission of 146 questionnaires. A further 49 responses were excluded because there were no differences between different motivation statements measured using Likert-type scale, meaning that they had used the same answer in all the questions. The reliability of questionnaires from these respondents was also considered questionable. Eighteen responses were deleted because of they did not answer to either travel activity questions or travel motivation questions. This left altogether 1,754 questionnaires for analysis.

The questionnaire used in this study was only in Finnish. A rough translation of the questionnaire can be seen in the Internet at address <https://elomake.uef.fi/lomakkeet/2410/lomake.html>.

To measure travel motivations a list of ten items from a study by Bieger and Laesser (2002) was used. It consists of only ten general travel motivations, making it easier for respondents to report the main motivations. To avoid response style effects caused by Likert scales (Dolnicar & Grün, 2007) respondents were asked to select at least one but up to three most important travel motivations for them. Mazanec (1984) state that simplified measurement approach increases the reliability of information collected. One way to simplify measurements is to offer respondents only two response choices compared to a voluminous battery (Mazanec, 1984). To simplify measurement even further the respondents were asked to choose the travel motivations that are most important for them. The ten travel motivation statements used in this study are general travel motivations found in many other tourism studies (abbreviations in parentheses):

- Participating in nightlife (nightlife)

- Enjoying comfort, spoiling myself (comfort)
- Taking and having time for my partner (partner)
- Taking and having time for my family (family)
- Enjoying landscape and nature (nature)
- Broadening my mind, enjoying sightseeing (culture)
- Being able to make flexible and spontaneous decisions (liberty)
- Doing something for my looks and well-being (body)
- Sports activities (sports)
- Enjoying the sun and water (sun)

The travel activities included in this paper are the rural tourism activities that are most important for the Finnish rural tourism companies. They are based on the current supply of rural tourism products in Finland as well as the development work done by the Finnish Tourist Board ([http://www.mek.fi/w5/mekfi/index.nsf/\(Pages\)/OutDoors?opendocument&np=A](http://www.mek.fi/w5/mekfi/index.nsf/(Pages)/OutDoors?opendocument&np=A), accessed 1.30.2013). The list of travel activities was also reviewed by both managers of rural tourism companies as well as academics. Respondents were asked to choose the activities that they would be interested in during their rural holiday.

Data analysis was in three stages. Hierarchical cluster analysis with Ward's method and squared Euclidean distances was used which is a common approach in market segmentation in tourism (see e.g. Dolnicar, 2002). To increase the reliability of the results by the data was divided randomly into two samples and clustering procedures were applied to both random samples. The dendrograms suggested that respondents should be divided into four clusters based on activities and three clusters based on travel motivations. In travel activities a five-cluster solution was chosen because it identified a very precise winter activity segment compared to three- and four-cluster solutions. Among motivation segmentation solutions a four-cluster solution was chosen as the most easily interpreted and most meaningful.

Clusters were validated by comparing their Internet use behaviour with items adopted from the study by Jani et al. (2011). These items have previously been used to describe travel personality segments but they are usable also when comparing travel activity and travel motivation segments. Respondents were asked what travel products they had purchased from the Internet during the last 12 months, what kind of Internet channels they used when planning and booking a holiday and how often they wrote reviews of the products and services online. The last of the aforementioned variables was re-coded into two groups according to whether the respondents had written reviews during the last 12 months or not. For Internet channels used and Internet purchase multiple responses were allowed.

This study followed the approach presented by Moscardo et al. (2001) to compare segments. For the analysis of variance both F-values and etas are reported and for cross-tabulations both chi-square and Goodman and Kruskal's tau statistics are reported. According to Moscardo et al. (2001), eta and Goodman and Kruskal's tau can be used to determine the strength of the relationship between the two segmentation approaches and the dependant variable under consideration.

## **Results**

The sample profile contained more female respondents (74.8%) than men. All age groups were very well represented with 40 to 49-year-olds being the largest age group (26.0%) and those under 20 years the smallest age group (4.7%). Of the respondents 34.7 percent had

vocational education, 20.5 per cent had polytechnic education and 14.8 per cent a university degree.

The segmentation results for travel motivations are presented in Table 1. All the members of Cluster A attached great value to being together with family, and nature was also important for almost all of them (87.7 %). Many members of cluster B (N=360) regarded nature as important. Culture and comfort were also moderately important but other motivations were of minor significance. Cluster C is the largest segment with 637 respondents. For all of them travelling with partner was important. Other important motivations were nature and culture in addition to comfort. Respondents in Cluster D found comfort, family, culture, liberty, and sun important motivations during their holidays but there was no one single motivation connecting all the respondents in this segment. Based on this information Cluster A was labelled as "Family and nature tourists", Cluster B as "Nature tourists", Cluster C as "Couple tourists" and Cluster D as "Relaxation tourists".

INSERT TABLE 1 HERE

Table 2 describes the results of activity based segmentation. Almost all members of Cluster A regard swimming as an important activity during their rural holiday. Other important activities are water related as well, such as rowing and fishing. Walking and hiking are something that almost half of the members of the Cluster A would like to do during their rural holiday. Members of Cluster B are quite passive. Walking / hiking is the only motivation that more than half of the segment members would be interested in. There are a lot (40%) of those who would like to watch animals during their rural holiday. For almost every member of Cluster C swimming and walking / hiking are preferred things to do. Nearly half of the segment members would also like to cycle. Cluster D is clearly a winter tourism segment with almost all wanting downhill skiing during their rural holiday. Cross-country skiing is also a preferred activity for them. Other important activities are swimming and walking / hiking. Walking / hiking and swimming are also very important for the last cluster. However, in Cluster E there are also a lot of those interested in canoeing, rowing, fishing, berry and mushrooming, watching animals and cycling, making the members of this segment very active during their rural holiday. Given the information above, the five activity segments were labelled as "Water activities", "Passives", "Nature activities", "Winter activities", and "Actives".

INSERT TABLE 2 HERE

Table 3 is a cross-tabulation of activity segments by motivation segments, a segment comparison approach suggested used by Moscardo et al. (2001).. A chi-square test indicates that there is a significant relationship between the two variables (chi-square 39.742, df 12,  $p < 0.001$ ,  $\tau = 0.006$ ). This means that travel activities are related to travel motivations. Members of "Family and nature tourists" are most likely to be members of "Water activities" and least likely to be members of "Winter activities". Almost a third of members of "Nature and sport tourists" are members of either "Nature activities" or "Actives" clusters. There are



also a lot of members of "Nature activities" and "Actives" in "Couple tourists". In "Relaxation tourists" many respondents are members of "Water activities" or "Nature activities".

INSERT TABLE 3 HERE

The two types of clusters are here also described in terms of some basic demographic and trip-related variables. The results of these comparisons can be found in Tables 4 and 5. The most important notion in these tables is the strength of F- and chi-square test scores as well as Tau and Eta. When the segmentation solutions are compared there are more statistical differences between activity segments than there are among travel motivation segments, as differences between motivation segments regarding age and previous rural tourism trips are non-significant. The differences between travel segments are greater in activity segmentation regarding age, gender, and previous rural trips. In travel party the differences are much stronger in travel motivation segmentation, which can be explained by the fact that travelling with a partner and travelling with family were among the travel motivations used to find the segmentation solution. Travel motivation segments also differ from each other more than activity segments in their plans to go on a rural holiday during the next 12 months.

INSERT TABLE 4 HERE

INSERT TABLE 5 HERE

It can be seen in Tables 6 and 7 that travel activities are much more powerful in separating clusters. All the test scores are higher in travel activity segmentation and there are much more statistical differences between segments. The test values of Goodman and Kruskal's Tau test are much higher in activity segmentation than motivation segmentation. For example, travel motivation segments differ from each other statistically only in use of Internet, whereas travel motivation segments also differ in their use of magazines, brochures, guidebooks, word-of-mouth, and travel agency. Travel activity segments also differ regarding their Internet use behaviour more than members of travel motivation segments, and there are more differences between travel activity segments in online purchasing behaviour and the differences in writing online reviews are greater.

INSERT TABLE 6 HERE

INSERT TABLE 7 HERE

There is also a possibility that the number of segments affects the scale of statistical differences between segments. Table 8 shows the statistical differences among six different segmentation solutions. The differences among segments seem to increase as more and more clusters are added to the solution, partially explaining why the five-cluster activity segment solution performed better than the four-cluster travel motivation segment solution. However, the differences among activity segments are greater than the differences in travel motivation segmentation solutions with the same number of segments in almost every aspect measured in

this study. Only when comparing travel party and plans to go to a rural holiday are the differences greater among travel motivation segments.

INSERT TABLE 8 HERE

### **Discussion and Conclusion**

In this study the superiority of activity based segmentation is compared to that of travel motivation based segmentation in respect to the power to distinguish between clusters. Segment heterogeneity has always been an important criterion when evaluating the success of market segmentation schemes. In order to effectively target different segments they need to be sufficiently distinguished, not just by demographics but also by information seeking behaviour. This study contributes to the existing market segmentation literature on tourism by comparing segment heterogeneity between activity and travel motivation segmentation.

The results presented in Tables 4 to 8 show that activity based segmentation produces more distinctive segments than travel motivation segmentation in most items measured in this study. This holds true for information seeking behaviour, online purchasing behaviour, and online information seeking behaviour and writing online reviews as well as socio-demographic factors. The only items for which travel motivation segmentation produces more distinctive segments are travel party and plans to go on a rural holiday in the near future.

The results of study concur with those of earlier studies. The results presented in Table 3 reveals a relationship between travel activities and travel motivations. Just as Moscardo et al. (1996) found a link between benefits sought and travel activities, this study found that travel motivations are connected to travel activities (Table 3). Travel motivations are the factors that make people want to travel, whereas activities represent what they want to do on their holidays. The results of this study also support this idea as travel motivations form more distinct segments than travel activities regarding the plans to go on a rural holiday during the next 12 months. However, the results should be interpreted with caution as the link has been measured only using very basic statistics. The chi-square test does not measure the strength of association and based on the results it can only be said that there is some kind of relationship between travel activities and travel motivations.

This study contributes to market segmentation theory in several ways. First it raises the question of what is the role of traditional market segmentation methods in online marketing. How can companies most efficiently utilize the results of market segmentation in online marketing? Segment accessibility (Morrison, 2002) has become maybe the most critical criterion in evaluating segmentation solution as the Internet offers unprecedented ways to access members of different segments. Deeper understanding of online behaviour is needed in order to asses segment accessibility. Second, this study adds to our existing knowledge on comparing the superiority of one segmentation base over another, in this case travel motivations and travel activities. Comparing segmentation bases has been regarded as an important area of research (Moscardo et al., 2001), but relatively little literature on the topic was found. In market segmentation theory the question of why a company should use one segmentation base over another is essential when planning marketing strategy. This study provides new insights on that topic by showing that when the goal of market segmentation is in travel behaviour travel motivations are better base for segmentation but in online marketing travel activities are superior in separating segments.

In earlier studies the Internet has usually been only one information channel among others. However, the importance of the Internet as a planning and booking channel has grown very fast in the last 20 years (Buhalis & Law, 2008). As the technology develops there have been many innovations, especially in the services provided in the Internet. The destination websites are losing importance as people are searching for more and more information from social media. This change in information seeking behaviour has also to be accounted for in market segmentation studies. In this study the segments are not compared only by different information channels used but also by how they use the Internet when planning, booking and reviewing their holidays. This enables tourism companies to plan and design their marketing campaigns better, and to choose what different Internet channels to use in order to most efficiently reach the customers they desire.

There are also several managerial contributions to be found in the results of this study. In this study both travel activity as well as travel motivation segments are examined and described, providing managers of rural tourism companies important information on existing market segments. For example, members of "Water activities" are hardly interested at all in canoeing, even though rowing and fishing are important for most of them. Those most interested in canoeing are members of "Actives", who, for example, use magazines more than members of "Water activities" segment. This only denotes the importance of distinguishing rural tourists interested in canoeing from those interested in fishing and rowing. Motivation segmentation of rural tourists has been done many times in the literature (e.g. Frochot, 2005; Park & Yoon, 2009; Pesonen 2012) yet little is known about activity segmentation of rural tourists. For managers of rural tourism companies this study provides results on two kinds of segmentation methods from which managers can choose the segment or segments that best suits their companies' marketing strategy and plans.

The results are useful especially when designing recommendation systems (Gretzel et al. 2004) as the results suggest that recommendation systems should be based on travel activities instead of travel motivations. Recommendation systems based on travel activities should be more accurate in recommending the correct travel products than travel motivation based systems. The results show that activity segmentation should be preferred to motivation segmentation when researcher or company wants to find distinctive segments.

There are some limitations to this study. It should be born in mind that the data was collected only from Internet users. However, it can be concluded that most rural tourists in Finland are likely to visit one of the websites included in this study when planning and booking their holidays. This is of course country specific as different countries have different levels of internet penetration, reducing the generalizability of these results in other contexts and countries. Internet penetration in Finland is very high (Statistics Finland, 2011) and this study has included all age groups under 65 years. Also most of the respondents in this study were women. This can be a result of self-selective sampling or that women visit the websites the data was collected from more often. Also the answering format in which respondents only choose motivations and activities important for them can be highly prone to evasion bias (Dolnicar, 2013), thus producing substantially fewer "yes" responses than any other answer format. This is not necessarily a bad thing as fewer responses make segments more distinctive, but still something that has to be accounted for when interpreting the results.

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**Table 1.** Motivation segmentation results

Item	Family and nature tourists (N=374, 21.3%)	Nature tourists (N=360, 20.5%)	Couple tourists (N=637, 36.3%)	Relaxation tourists (N=383, 21.8 %)
Nightlife		56 (15.6%)	23 (3.6 %)	36 (9.4%)
Comfort	64 (17.1%)	130 (36.1%)	193 (30.3%)	173 (45.2%)
Partner		10 (2.8%)	637 (100 %)	12 (3.1%)
Family	374 (100 %)	32 (8.9%)	90 (14.1%)	180 (47.0 %)
Nature	328 (87.7%)	314 (87.2%)	366 (57.5%)	56 (14.6%)
Culture	118 (31.6%)	157 (43.6%)	200 (31.4%)	179 (46.7%)
Liberty	42 (11.2 %)	77 (21.4%)	112 (17.6%)	140 (36.6%)
Body	11 (2.9%)	18 (5.0%)	7 (1.1%)	18 (4.7%)
Sports	1 (0.3%)	66 (18.3%)	32 (5.0%)	28 (7.3%)
Sun	73 (19.5%)	68 (18.9 %)	136 (21.4%)	209 (54.6%)

**Table 2.** Activity segmentation results

Item	Water activities (N=396, 22.6%)	Passives (N=270, 15.4%)	Nature activities (N=507, 28.9%)	Winter activities (N=133, 7.6 %)	Actives (N=448, 25.5 %)
Downhill skiing	28 (7.1%)	5 (1.9%)	32 (6.3%)	128 (96.2 %)	77 (17.2 %)
Cross-country skiing	17 (4.3 %)	10 (3.7%)	145 (28.6%)	57 (42.9 %)	189 (42.2 %)
Tour skating	8 (2.0%)	9 (3.3%)	22 (4.3%)	19 (14.3%)	88 (19.6%)
Snowmobiling	11 (2.8%)	9 (3.3%)	78 (15.4%)	52 (39.1%)	88 (19.6%)
Swimming	373 (94.2%)	25 (9.3%)	431 (85.0%)	101 (75.9%)	404 (90.2%)
Canoeing	50 (12.6%)	7 (2.6%)	94 (18.5%)	53 (39.8%)	276 (61.6%)
Rowing	300 (75.8%)	76 (28.1%)	148 (29.2%)	40 (30.1%)	390 (87.1%)
Fishing	241 (60.9%)	99 (36.7%)	122 (24.1%)	37 (27.8%)	346 (77.2%)
Berry picking or mushroom gathering	76 (19.2%)	89 (33.0%)	148 (29.2%)	8 (6.0%)	300 (67.0%)
Walking / hiking	177 (44.7%)	167 (61.9%)	458 (90.3%)	81 (60.9%)	418 (93.3%)
Golf	1 (4.5%)	8 (3.0%)	6 (1.2%)	10 (7.5%)	37 (8.3%)
Watching animals	110 (27.8%)	108 (40.0%)	213 (42.0%)	27 (20.3%)	224 (50.0%)
Cycling	49 (12.4%)	54 (20.0%)	225 (44.4%)	43 (32.3%)	311 (69.4%)

**Table 3.** The Relationship Between Activity Segmentation and Motivation Segmentation Cluster Membership

Item	Water activities (N=396, 22.6%)	Passives (N=270, 15.4%)	Nature activities (N=507, 28.9%)	Winter activities (N=133, 7.6 %)	Actives (N=448, 25.5 %)	Total
<b>Family and nature tourists (N=374, 21.3%)</b>	N 109 29.1% (27.5%)	41 11.0% (15.2%)	93 24.9% (18.3%)	28 7.5% (21.1%)	103 27.5% (23.0%)	374 100.0% 21.3%
<b>Nature tourists (N=360, 20.5%)</b>	N 55 15.3% (13.9%)	61 16.9% (22.6%)	111 30.8% (21.9%)	27 7.5% (20.3%)	106 29.4% (23.7%)	360 100.0% 20.5%
<b>Couple tourists (N=637, 36.3%)</b>	N 130 20.4% (32.8%)	113 17.7% (41.9%)	191 30.0% (37.7%)	42 6.6% (31.6%)	161 25.3% (35.9%)	637 100.0% 36.3%
<b>Relaxation tourists (N=383, 21.8 %)</b>	N 102 26.6% (25.8%)	55 14.4% (20.4%)	112 29.2% (22.1%)	36 9.4% (27.1%)	78 20.4% (17.4%)	383 100.0% 21.8%
<b>Total</b>	N 396 100.0%	270 100.0%	507 100.0%	133 100.0%	448 100.0%	1754 100.0%

Note: Figures in brackets are column percentages, other figures are row percentages.

**Table 4.** Profile of Activity Segments on Age, Gender, Type of Travel Party and Previous rural holidays

	Water activities (N=396, 22.6%)	Passives (N=270, 15.4%)	Nature activities (N=507, 28.9%)	Winter activities (N=133, 7.6 %)	Actives (N=448, 25.5 %)	$\chi^2 / F$	Goodman Kruskal's Tau ( $\chi^2$ test) / Eta (F-test)
<b>Mean age in years (Std.Dev.)</b>	38.97 (12.23)	43.94 (13.64)	39.38 (12.80)	32.86 (11.20)	38.23 (12.56)	16.69**	0.198**
<b>Gender</b>						31.25**	0.018**
Male	104 (26.5%)	101 (37.5%)	108 (21.4%)	33 (25.2%)	90 (20.5%)		
Female	288 (73.5%)	168 (62.5%)	396 (78.6%)	98 (74.8%)	350 (79.5%)		
<b>Travel party</b>							
Partner	149 (37.6%)	153 (56.7%)	257 (50.7%)	59 (44.4%)	220 (49.1%)	25.57**	0.016**
Family with only children below 12 years old	104 (26.3%)	32 (11.9%)	84 (16.6%)	34 (25.6%)	82 (18.3%)	28.15**	0.016**
Family with children in different age groups	99 (25.0%)	32 (11.9%)	91 (17.9%)	22 (16.5%)	98 (21.9%)	20.82**	0.012**
Other relatives	34 (8.6%)	10 (3.7%)	32 (6.3%)	8 (6.0%)	31 (6.9%)	5.46	0.004
Friends	65 (16.4%)	46 (17.0%)	108 (21.3%)	35 (26.3%)	87 (19.4%)	8.45*	0.005*
Alone	9 (2.3%)	19 (7.0%)	23 (4.5%)	2 (1.5%)	21 (4.7%)	11.82**	0.007**
<b>Has been on a rural holiday during the past 12 months</b>	236 (59.9%)	155 (58.1%)	319 (63.5%)	94 (71.2%)	314 (70.4%)	17.95**	0.10**
<b>Is not planning to go on a rural holiday during the next 12 months</b>	70 (17.8%)	57 (21.2%)	100 (19.9%)	20 (15.2%)	70 (15.7%)	21.96**	0.007**

\*p<0.10

\*\*p<0.05

**Table 5.** Profile of Motivation Segments on Age, Gender, Type of Travel Party and Previous Rural Holidays

	Family and nature tourists (N=374, 21.3%)	Nature tourists (N=360, 20.5%)	Couple tourists (N=637, 36.3%)	Relaxation tourists (N=383, 21.8 %)	$\chi^2 / F$	Goodman Kruskal's Tau / Eta
<b>Mean age in years (Std.Dev.)</b>	40.37 (10.82)	39.40 (13.81)	38.96 (13.53)	38.11 (12.58)	1.901	0.059
<b>Gender</b>					10.29**	0.006**
Male	74 (20.1%)	102 (28.7%)	173 (27.5%)	87 (22.8%)		
Female	295 (79.9%)	254 (71.3%)	457 (72.5%)	294 (77.2%)		
<b>Travel party</b>						



Partner	54 (14.4%)	132 (36.7%)	541 (84.9%)	111 (29.0%)	591.04**	0.337**
Family with only children below 12 years old	162 (43.3%)	22 (6.1%)	57 (8.9%)	95 (24.8%)	231.265**	0.132**
Family with children in different age groups	152 (40.6%)	45 (12.5%)	48 (7.5%)	97 (25.3%)	184.117**	0.105**
Other relatives	22 (5.9%)	37 (10.3%)	30 (4.7%)	26 (6.8%)	12.00**	0.007**
Friends	36 (9.6%)	136 (37.8%)	72 (11.3%)	97 (25.3%)	135.70**	0.077**
Alone	2 (0.5%)	47 (13.1%)	6 (0.9%)	19 (5.0%)	99.58**	0.057**
<b>Has been on a rural holiday during the past 12 months</b>	252 (67.7%)	231 (64.5%)	396 (62.6%)	240 (63.2%)	2.93	0.002
<b>Is not planning to go on a rural holiday during the next 12 months</b>	39 (10.5%)	78 (21.7%)	113 (17.9%)	87 (22.8%)	33.91**	0.008**

\*p<0.10  
\*\*p<0.05

**Table 6.** Differences in information seeking behaviour between travel activity segments

Information sources	Water activities (N=396, 22.6%)	Passives (N=270, 15.4%)	Nature activities (N=507, 28.9%)	Winter activities (N=133, 7.6 %)	Actives (N=448, 25.5 %)	$\chi^2$	Goodman Kruskal's Tau
<b>Information sources used when planning and booking a holiday</b>							
Internet	372 (93.9%)	226 (83.7%)	476 (93.9%)	128 (96.2%)	424 (94.6%)	39.22**	0.022**
Magazines	82 (20.7%)	49 (18.1%)	110 (21.7%)	32 (24.1%)	129 (28.8%)	13.86**	0.008**
Brochures	179 (45.2%)	116 (43.0%)	263 (51.9%)	59 (44.4%)	248 (55.6%)	16.71**	0.010**
Guidebooks	67 (16.9%)	42 (15.6%)	90 (17.8%)	30 (22.6%)	111 (24.8%)	14.13**	0.008**
Friends and relatives	147 (37.1%)	84 (31.1%)	214 (42.2%)	57 (42.9%)	214 (47.8%)	22.36**	0.013**
Travel agency	37 (9.3%)	22 (8.1%)	70 (13.8%)	17 (12.8%)	72 (16.1%)	14.37**	0.008**
<b>Types of web sites used when planning and booking a holiday</b>							
Affiliate website	261 (65.9%)	156 (57.8%)	337 (66.5%)	78 (58.6%)	326 (72.8%)	20.54**	0.012**
Travel agency website	151 (38.1%)	82 (30.4%)	187 (36.9%)	48 (36.1%)	189 (42.2%)	10.32**	0.006**
Destination website	131 (33.1%)	88 (32.6%)	181 (35.7%)	51 (38.3%)	199 (44.4%)	15.90**	0.009**
Search engine	345 (87.1%)	203 (75.2%)	419 (82.6%)	118 (88.7%)	398 (88.8%)	29.62**	0.017**
DMO website	50 (12.6%)	30 (11.1%)	74 (14.6%)	27 (20.3%)	96 (21.4%)	20.72**	0.012**
Newspaper/Magazine web site	58 (14.6%)	24 (8.9%)	78 (15.4%)	18 (13.5%)	81 (18.1%)	11.64**	0.007**
Discussion boards / blogs	60 (15.2%)	37 (13.7%)	92 (18.1%)	29 (21.8%)	98 (21.9%)	11.41**	0.007**
Social media	49 (12.4%)	24 (8.9%)	74 (14.6%)	21 (15.8%)	76 (17.0%)	10.55**	0.006**
<b>Purchased online travel products from the past 12 months</b>							
Accommodation	205 (51.8%)	109 (40.4%)	269 (53.1%)	76 (57.1%)	257 (57.4%)	21.42**	0.012**
Flight tickets	145 (36.6%)	73 (27.0%)	182 (35.9%)	56 (41.4%)	184 (41.3%)	16.36**	0.009**

				(42.1%)	(41.1%)		
Ticket to event / destination	59 (14.9%)	30 (11.1%)	72 (14.2%)	30 (22.6%)	90 (20.1%)	16.19**	0.009**
None of the above	110 (27.8%)	116 (43.0%)	155 (30.6%)	30 (22.6%)	113 (25.2%)	31.05**	0.018**
<b>Writes online reviews</b>	117 (29.8%)	60 (22.3%)	114 (22.5%)	35 (26.5%)	140 (31.4%)	14.06**	0.008**

\*p<0.10  
\*\*p<0.05

**Table 7.** Differences in information seeking behaviour between travel motivation segments

Information sources	Family and nature tourists (N=374, 21.3%)	Nature tourists (N=360, 20.5%)	Couple tourists (N=637, 36.3%)	Relaxation tourists (N=383, 21.8%)	$\chi^2$	Goodman Kruskal's Tau
<b>Information sources used when planning and booking a holiday</b>						
Internet	347 (92.8%)	328 (91.1%)	603 (94.7%)	348 (90.9%)	6.89*	0.004*
<b>Types of web sites used when planning and booking a holiday</b>						
Affiliate website	264 (70.6%)	226 (62.8%)	426 (66.9%)	242 (63.2%)	6.75*	0.004*
Newspaper/Magazine web site	42 (11.2%)	57 (15.8%)	91 (14.3%)	69 (18.0%)	7.37*	0.004*
Discussion boards / blogs	47 (12.6%)	75 (20.8%)	114 (17.9%)	80 (20.9%)	11.60**	0.007**
Social media	45 (12.0%)	44 (12.2%)	87 (13.7%)	68 (17.8%)	6.72*	0.004*
<b>Purchased online travel products from the past 12 months</b>						
Accommodation	189 (50.5%)	181 (50.3%)	358 (56.2%)	188 (49.1%)	6.52*	0.004*
Flight tickets	111 (29.7%)	134 (37.2%)	255 (40.0%)	140 (36.6%)	11.02**	0.006**
Ticket to event / destination	54 (14.4%)	55 (15.3%)	90 (14.1%)	82 (21.4%)	10.81**	0.006**
<b>Writes online reviews</b>	85 (22.7%)	109 (30.3%)	157 (24.8%)	115 (30.3%)	8.95**	0.005**

\*p<0.10  
\*\*p<0.05

**Table 8.** Comparing different cluster solutions

Information sources	Activities, three clusters	Activities, four clusters	Activities, five clusters	Motivations, three clusters	Motivations, four clusters	Motivations, five clusters
<b>Age, F-test / eta</b>	1.91 / 0.048	13.40 / 0.155	16.69 / 0.198	1.99 / 0.049	1.90 / 0.059	1.81 / 0.067
<b>Gender, chi test / tau</b>	6.82 / 0.004	30.46 / 0.018	31.25 / 0.018	6.98 / 0.004	10.29 / 0.006	10.69 / 0.006
<b>Travel party, chi test / tau</b>						
Mean	11.39 / 0.007	15.30 / 0.009	17.21 / 0.010	189.31 / 0.108	208.95 / 0.119	209.87 / 0.120
Median	10.71 / 0.006	15.05 / 0.009	16.32 / 0.010	141.00 / 0.081	159.91 / 0.091	160.72 / 0.092
<b>Has been on a rural holiday, chi test / tau</b>	11.17 / 0.006	15.28 / 0.009	17.95 / 0.010	2.78 / 0.002	2.93 / 0.002	12.20 / 0.007
<b>Is planning to go to a rural holiday, chi test / tau</b>	17.08 / 0.006	19.11 / 0.006	21.96 / 0.007	33.22 / 0.008	33.91 / 0.008	50.71 / 0.014
<b>Information sources,</b>						

<b>chi test / tau</b>						
Mean	7.06 / 0.004	12.70 / 0.007	13.52 / 0.008	2.44 / 0.001	3.24 / 0.002	4.57 / 0.003
Median	7.74 / 0.005	13.05 / 0.008	14.00 / 0.008	2.34 / 0.002	3.41 / 0.002	3.85 / 0.002
<b>Websites used in search, chi test / tau</b>						
Mean	9.48 / 0.005	13.81 / 0.008	14.97 / 0.009	4.49 / 0.003	5.74 / 0.003	9.98 / 0.006
Median	7.03 / 0.004	11.35 / 0.006	11.64 / 0.007	3.46 / 0.002	5.63 / 0.003	10.93 / 0.006
<b>Online purchases, chi test / tau</b>						
Mean	5.36 / 0.003	12.13 / 0.007	14.01 / 0.008	4.41 / 0.003	5.98 / 0.003	9.29 / 0.005
Median	6.16 / 0.004	10.72 / 0.006	16.19 / 0.009	2.78 / 0.002	4.29 / 0.002	9.11 / 0.005
<b>Writing online reviews, chi test / tau</b>						
	13.11 / 0.008	13.21 / 0.008	14.06 / 0.008	8.95 / 0.005	8.95 / 0.005	11.42 / 0.008