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Abstract

The aim of the chapter is to discuss and illustrate different approaches taken in the area of empirical market segmentation in tourism, and to raise conceptual, practical and methodological problems in this context. The chapter is limited to the discussion of empirical market segmentation, which means that an empirical data set (typically resulting from a tourist survey) represents the basis. Purely conceptual derivation of market segments or tourist typologies is not treated. Given this aim, the reader should be provided with an overview of empirical market segmentation in tourism and realize how much unexploited potential for improvement remains in this area.

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Empirical market segmentation: What you see is what you get.

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INTRODUCTION

Tourism is just like any other industry. Although it offers intangible, perishable services, is characterized by global competition, and is threatened or strengthened by political developments, it is just like any other industry with regard to the most fundamental market characteristic: customers have certain ideas of what they are looking for (preferences), and they choose the offer that best meets their preferences. It is therefore crucial to thoroughly understand what ideas customers have about the vacation of their dreams, the honeymoon to remember for a lifetime or the adventure trip that still gets adrenaline pumping in their veins when they flip through the photos. As an organization or a tourist destination, it is important to understand customers' ideas in order to be capable to design offers that best match the consumer preferences and thus increase sales, possibly even satisfaction and consequently the probability of repeated purchase of the same tourism product.

This sounds like a very simple and straightforward task for tourism management: understand the preferences of potential customers. It would indeed be very simple and straightforward if individuals were all the same. If they would share a common view, the same picture about the vacation of their dreams, one perfect tourism product would be designed and marketed.

The complexity of the problem increases dramatically when it is acknowledged that consumers differ in their preferences: different individuals have different ideas about how they imagine their ideal vacation. For tourism management this means that it becomes necessary not only to understand one set of preferences, but a number of different ideal tourism products: the wild Australian adventure with a touch of real danger for the young, single male tourist; the quiet and relaxing spa holiday for the retired couple; or the 5-day Europe sightseeing bus-tour for culturally ambitious groups of Japanese.

The fact that individuals differ in their perception of the perfect vacation implies that there is a lot of variety, or heterogeneity, in the tourism marketplace. Heterogeneity that challenges the market research skills of tourism destinations and organizations: those destinations / organizations that see what the market – and the many sub-markets, or market segments – want, will be able to attract those individuals and thus “get what they see”, making them their customers. By doing so, they automatically gain competitive advantage over other destinations and organizations that do not understand market preferences, mostly because they do not bother to look (thus underestimating the importance of thorough market research in the tourism industry). Destinations or tourism organizations that do not see consumer preferences - and the continuing development of these preferences - put themselves at risk of competitors stealing their customers: those

competitors who see clearly and offer what the markets or particular segments require.

The starting point of this chapter is the insight that consumers are heterogeneous - they differ in many regards, including their product preferences – and that understanding those differences leads to the capability to make best possible catering arrangements for particular needs and thus gain competitive advantage in the marketplace. The aim of the chapter is to discuss and illustrate different approaches taken in the area of empirical market segmentation in tourism, and to raise conceptual, practical and methodological problems in this context. The chapter is limited to the discussion of empirical market segmentation, which means that an empirical data set (typically resulting from a tourist survey) represents the basis. Purely conceptual derivation of market segments or tourist typologies is not treated. Given this aim, the reader should be provided with an overview of empirical market segmentation in tourism and realize how much unexploited potential for improvement remains in this area.

CAUSES OF VARIETY

Clearly, consumers are not different in every single aspect. They have many things in common (for instance, half of the consumers are female) but they differ in other ways. The differentiating characteristics are of interest in the context of market segmentation. These represent the causes of variety or heterogeneity in the marketplace and, consequently, are the main focus in the identification or construction of market segments. Sometimes one single characteristic (segmentation criterion) is sufficient to discriminate between relevant segments. Other times a number of characteristics are used simultaneously to group customers into segments. This would then be referred to as a segmentation base (Wedel and Kamakura, 2002).

Anything that is useful to management can be used as a segmentation criterion or segmentation base. The most typical criteria and segmentation bases are the following:

Socio-demographic: Typical socio-demographic criteria used in market segmentation include gender, age, education or income.

Geographic: In tourism geographic segmentation is probably the most common concept in the area of destination management with the country of origin of tourists functioning as the segmentation criterion.

Behavioural: Typical behavioural information includes vacation activities, choice behaviour, general vacation habits (how often do tourists go on vacation, how long do they stay etc.), expenditures and similar pieces of information.

Psychographic: Travel motivations probably represent the single most popular psychographic segmentation base. Other criteria in this group would include guest satisfaction or lifestyle statements.

The borders between these bases of segmentation criteria are fuzzy. Therefore, different authors use different classification schemes. But this is not a conceptual problem. It is only a matter of preference in systematizing criteria.

Although it has been claimed that psychographic criteria outperform socio-demographic groupings of customers, the usefulness of each of those groups of criteria is entirely dependent on the purpose of the study. Therefore it seems unreasonable to make general recommendations regarding the best choice of segmentation criteria.

STANDARD APPROACHES

Two standard approaches are known in empirical market segmentation:

One is referred to as *a priori* segmentation (Mazanec, 2000) or commonsense segmentation (Dolničar, forthcoming). This approach implies that tourism management is aware of the consumer characteristic(s) that can be used to split all tourists into managerially relevant groups. For instance, if a family hotel is being designed, it is clear *a priori* that customers will be adults with children. Choosing the segmentation criterion of “having children” is thus a commonsense decision that is managerially highly useful in this case. Why would management want to design a family hotel and then try to attract single couples?

The second standard procedure in tourism market segmentation is called *a posteriori* (Mazanec, 2000), or *post-hoc* (Wedel and Kamakura, 2002), or data-driven (Dolničar, 2002a) segmentation. In this case it is not quite so obvious which characteristic of the consumers might be most useful to group tourists. Because it is not obvious, data from consumers has to be collected and explored. Through systematic exploration of data a number of different groupings will become apparent, from which management can choose the single most useful one. The best grouping is thus only known *a posteriori* or *post-hoc* (after exploring data) and is derived in a data-driven manner rather than resulting from a commonsense selection of a consumer characteristic.

Examples of *a priori* / commonsense segmentation

In 2000, the Austrian Business Chamber decided that their hotel star grading criteria needed to be revisited to shift from a product-oriented perspective to a market-oriented view. The future criteria for categorizing hotels into one-

to five-star accommodation facilities should reflect the needs and expectations of the respective customers.

This problem is a typical commonsense segmentation task: the total market of tourists has to be split into segments according to the hotel star category they typically chose. This is clear in advance and it is also clear that the market will thus be divided into precisely five groups of customers: people who chose to stay in five star hotels, four star hotels, three star hotels, two star hotels and one start hotels.

A large-scale empirical survey was conducted to determine which hotel attributes matter (Dolničar and Otter, 2003) as well as the particular needs and desires of each one of the segments. The sample size amounted to 614 respondents (selected using a hypothesis oriented quota sampling technique accounting for season, country of origin, city or non-city destination, business or vacation travel purpose and star grading categories). The interviews – each took about 15 minutes - were conducted in the hotels the respondents stayed at.

From this empirical data set relevant insights could be deducted. For instance, it was found, that there were significant differences between guests staying in different hotel categories: the brand signal “number of stars” was relevant for 6 percent of the one-star, 16 percent of the two-star, 28 percent of the three-star, 34 percent of the four-star and 38 percent of the five star guests indicating that the signalling function of the star categories effects the decision reached by potential customers in a different way. Managerially, this finding means that five star hotels have a powerful tool in their possession for attracting customers by informing them about the star category, whereas for a one star hotel it would be a waste of effort to communicate the category, as only six percent of tourists include this information in their decision making process. The contrary applies to prices: about 80 percent of customers of one- and two-star hotels actively seek for price information while deciding on their accommodation, 67 percent of the three-start-hotel guests require this information, 55 percent in the four- and 27 percent in the five-star category. The implications of this significant – but not very surprising – difference leads to the debate of whether or not the hotel star category criteria should impose price ranges on hotels. Another very practical difference is that one fifth of the five star hotel guests directly inquire during their hotel decision-making process whether or not a sauna and a gym are offered. This has direct consequences for product design to optimise satisfaction of the needs of this particular segments. Further differences were found with regard to perceived risks, expectations, disappointments with prior hotel experiences, and many more. As a result of this study, the Austrian Business Chamber was provided with the precise descriptions of all five segments, including the information in which

characteristics the differences are statistically significant. This was used as a basis for the redesign of the hotel star grading system criteria.

A second commonsense segmentation that resulted from this same empirical study was to investigate specific needs of business travellers (Dolničar, 2002b). Again, the choice of the criterion to define the market segment (in this case the purpose of travel had to be business) is chosen in advance. For instance, a hotel that is catering to business travellers will only gain more insight into the market by looking at the segment of business travellers than by exploring the needs of individuals choosing certain hotel categories.

While this examples illustrate the concept of commonsense segmentation, its functioning and its managerial usefulness, the simple most typical commonsense segmentation in the tourism industry (at destination level) is to form market segments based on the country of origin. In Austria, for instance, the national tourism organization conducts a three-yearly large-scale guest survey. One of the standard reports resulting from this survey is the detailed description of tourists from different nations. This is a grouping that is not only known in advance but also does make a lot of practical sense, as countries of origin differ in languages and cultural backgrounds and thus typically require separate treatment.

As illustrated in the examples above, *a priori* / commonsense segmentation basically requires two steps: (1) the selection of the criterion which is used to split up the customers (choice of hotel category, country of origin), and (2) description of the resulting segments based on empirical market data and including statistical testing of differences. This procedure is widely used and represents the most common kind of market segmentation practically applied in tourism.

Further examples – and this is not a comprehensive collection of studies - published in academic journals include the following: Baloglu and McCleary (1999) contrast the way visitors and non-visitors of a destination perceive the image of this region; Goldsmith and Litvin (1999) compare heavy users and light users, a very typical approach in commonsense segmentation; Kashyap and Bojanic (2000) explore differences between business travellers and holidaymakers; Smith and MacKay (2001) investigate how age groups differ in remembering pictures used in advertising; Israeli (2002) studies destination perception differences between disabled and non-disabled visitors; Klemm (2002) focuses on one ethnic minority in the UK and describes their vacation preferences; McKercher (2001) explores differences between tourists staying at one destination and those who only travel through; Meric and Hunt (1998) profile the ecotourist; Court and Lupton (1997) construct groups of different levels of intention to revisit a destination and investigates differences;

Arimond and Lethlean (1996) form segments based on the kind of site rental taken at a campground.

Examples of *a posteriori* / *post-hoc* / data-driven segmentation

Interestingly, from a strict perspective of pure data-driven segmentation, very few such studies exist. Most of the studies of this nature fit into the combined category described below.

A pure example of data-driven segmentation is provided by Bieger and Lässer (2002) who group the Swiss population into market segments. The basis for segmentation is a set of travel motives. The reason why this is one of the few pure data-driven segmentations lies in the fact that typically a pre-selection of respondents is made before the data-driven task is initiated. This approach, however, represents a combination of commonsense (pre-selection) and data-driven segmentation. Studies of this nature have dramatically increased in popularity over the past decades, although practical implementation in tourism industry still remains limited.

A data-driven example is briefly described here to illustrate the concept. It is concerned with the grouping of culture tourists (pre-selection with regard to primary motivation for the trip) according to their vacation activities (Dolničar, 2002c). The analysis is based on data from the Austrian National Guest Survey conducted in 1997/1998 including a total of 10,203 personal interviews. This example was selected because the Austrian National Guest Survey provided an excellent data basis for data-driven segmentation (large number of potential segmentation bases and high sample size). The sub-sample of cultural tourists that was included in this segmentation study (these respondents stated that their main motivation to travel is culture or city tourism) amounts to 2492. The aim was to construct segments of cultural tourists with distinct vacation activity patterns. For this purpose, several activity statements from the interview were used as segmentation base: participation in organized excursions, undertaking excursions, shopping, sightseeing, visiting museums, exhibitions, theatre, musical, opera, visiting festivals, concerts and visiting local and regional events. A behavioural segmentation solution with nine segments was chosen, because it emerged as the most stable solution and was managerially interpretable. These segments render plausible interpretations and the external validity is high; this means that there are significant differences between the segments with regard to additional descriptive information that was not used in the grouping process itself. One of those segments will be described here. It was named the *individual culture explorers*. The vacation activity profile of this group is shown in Figure 1, where the columns represent the percent of members of this particular segment who agree to undertake those activities during their stay, and the black horizontal lines show the average participation in those activities among all cultural tourists. If the column and

the horizontal lines are very similar (as it is the case for sightseeing in Figure 1), the segment under inspection is not very distinct as compared to the average (cultural) tourists visiting Austria. The more the two values differ (organized bus trips in Figure 1), the more distinct and unique a market segment is. The segment profile provided in Figure 1 thus shows that the segment of *individual culture explorers* is very characteristic because all members – without one single exception - shop and visit museums and exhibitions. On the other hand, bus trips and excursions do not appeal to this segment at all. This particular data-driven segment could be an excellent target group for museums.

----- Figure 1 -----

In addition to the vacation activity profiles used to define market segments, a number of additional pieces of information about these individuals are available from the Austrian National Guest Survey. It can be used to examine the external validity of the segmentation solution derived from the data. A valuable insight can be gained from this examination: if the segments only differ in the vacation activities and nothing else, they might be of questionable practical value. External validity, however, gives management the security that segments actually represent different groups of individuals, if they differ in several aspects (even those that were not used to group them). Consequently, such segments are reasonable targets for separate marketing action.

Individual culture explorers, for instance, significantly differ from other cultural tourists with regard to numerous managerially relevant pieces of information: they visit Austria more frequently in winter than other segments do, they value cultural offers significantly more than other segments, a fact that is reflected in the highest level of expenditures per person per day for entrance fees to cultural attractions.

Such a data-driven segmentation can be of great value to businesses involved in providing or organizing cultural attractions in Austria. It enables managers to choose which segment to focus on. In this case, the *individual culture explorers* would be highly attractive given their pattern of activities and their willingness to spend a lot of money to visit cultural attractions.

As illustrated in this example, data-driven segmentation requires at least three steps given that an empirical data set is available (of course it is more favourable to design the survey based on the segmentation needs):

(1) The selection of the criterion which is used to split up the customers. In this case information is multivariate; it contains more than one question of

the questionnaire. In the culture tourism example the criterion used were eight questions on vacation activities people engaged in during their stay.

(2) Data analysis with an appropriate algorithm avoiding a number of typical mistakes made in the context of data-driven market segmentation (Dolničar, 2002a).

(3) Interpretation of the segments and testing of the validity of the solution. While data-driven segmentation has been increasingly used in tourism research, industry has not fully adapted this approach yet; probably because it is methodologically more complex and conceptually less intuitive than commonsense segmentation. However, it has a sunny wide: adopting *a posteriori* approaches represents an excellent opportunity to extract more information about the market than the competitors and consequently, to gain competitive advantage.

Further examples of combined commonsense and data-driven segmentation studies published in academic tourism journals in the past include the following: Silverberg, Backman and Backman (1996) split nature-based tourists into benefit segments, Dodd and Bigotte (1997) pre-select winery visitors and group them according to demographics in a data-driven way, Formica and Uysal (1998) use visitors of a cultural-historical event in Italy as starting point and investigate psychographic segments on the basis of their motivations. Kastenholz, David and Gordon (1999) study benefit segments among visitors to rural areas. Moscardo *et al.* (2000) choose the visitors of friends and relatives and study segments based on behavioural patterns. Focusing on senior motor coach travellers as pre-selection of tourists, Hsu and Lee (2002) construct segments based on motor coach selection criteria. Dolničar and Leisch (2003b) search for vacation segments among winter tourist in Austria. Again, the above list is by no means comprehensive, but it provides the reader with further relevant sources in the area of data-driven market segmentation in tourism.

UNASKED QUESTIONS, FUNDAMENTAL MISCONCEPTIONS AND IGNORED DANGERS

Unasked questions and fundamental misconceptions

Unasked question # 1: What is the commercial benefit of market segmentation?

To the author's knowledge this crucial question remains uninvestigated in tourism research. Typically, market segments are revealed or constructed and the resulting groups are described. The single most crucial criterion for the usefulness of a segmentation solution is, whether choosing a segmentation strategy based on those segments actually increases tourism

revenues at a destination or profit in tourism industry. This is seldom mentioned.

Unasked question # 2: Do market segments change over time?

In the case of commonsense segmentation, it is typical to study on a yearly basis the changes that take place in the market. For instance, are Japanese tourists spending more money, travelling more, travelling further, or staying longer than they did last year? This is a very important question to ask as the market changes constantly and missing market changes means not seeing which preferences need to be met. In the area of data-driven segmentation this question remains widely unasked. Typically, one segmentation solution is computed at one point in time. The grouping of tourists is then used as basis for strategic marketing and is usually not questioned either in view of its usefulness or with regard to possible changes that might be occurring over time. Such limited approach can be dangerous. It means that management takes one glimpse at the market and then instantly shuts their eyes again. A simple recommendation of how data-driven segments can be monitored over time was provided by Dolničar (2003) and Dolničar and Leisch (2003a).

Unasked question # 3: How does market segmentation interact with product positioning and competition?

Market segmentation is only one of three building blocks in strategic marketing. Market segmentation studies typically do not treat all three areas as integrated and strongly associated. For instance, the most attractive market segment is not a good choice for a destination if another destination is strongly perceived in this particular way already and therefore competition would be too intense. Such integrated issues reflect on the segmentation choice but are typically ignored while segmentation is treated as independent and isolated area of strategic marketing. Mazanec and Strasser (2000) suggested an integrated framework to conduct market research and analysis simultaneously for all those areas.

Misconception # 1: There are true, real groups among tourists that need to be revealed.

The most fundamental misunderstanding in the area of market segmentation is an implicit assumption of tourism management: segments are clearly distinct entities that exist naturally among individuals. It is assumed that any segmentation of tourists – be it commonsense or data-driven – reflects a true and real existence of groups that are clearly separated. From the author's experience in segmenting tourism data sets for one decade now, this is an illusion. Rarely is there an empirical data set where individuals form homogeneous groups that are clearly and distinctly separated from other homogeneous groups. Consumer heterogeneity is an individual

phenomenon. As such, all grey shades exist and most groupings of such individuals into market segments represent an artificial task. Market segments are constructed, not revealed. This has never been discussed in the scientific community, where the focus of development lies on methodological improvements of segmentation techniques. However, the view regarding the underlying assumption about the occurrence or non-occurrence of natural groups of tourists has been implicitly mentioned. It shows the transition from the strict revelation of true groups among individuals toward the acceptance of artificiality of market segmentation: Frank, Massy and Wind (1972) state that the purpose of taxonomic procedures is to describe *natural groupings* in empirical data sets. Myers and Tauber (1977) refer to market segments within the field of segmentation research as clearly defined natural groupings of people. Consequently, the goal of the segmentation process is to identify these natural groupings. Mazanec (1997) – two decades later - does not assume the existence of natural segments, consequently implying that homogeneous groups have to be constructed rather than found. Wedel and Kamakura (2002) agree with this latter assumption; they claim that market segmentation involves *artificial groupings* of individuals that are constructed for best possible targeting action.

A framework to increase transparency with regard to the underlying segmentation concept was proposed by Dolničar and Leisch (2001) that distinguishes between three data-driven segmentation settings, as illustrated in Figure 2.

----- Figure 2 -----

The fundamental idea of this framework is to ask two questions about the empirical data:

- (1) Is there any structure in the data at all?
- (2) If yes: is this structure real cluster structure or is it data structure of other nature?

No matter what the answers to these questions are, it is managerially useful to segment the market. But the underlying concepts are entirely different: in the case of *revealing clustering*, true clusters are found, in the case of *stable clustering*, segments can be repeatedly identified although clear border lines between the segments do not exist. And finally, if no structure exists in the data, it is still better to construct artificial groups (*constructive clustering*) that include members similar to each other rather than to address all tourists on the planet in an identical manner. In any case, this frameworkⁱ is a useful structural guide for improved managerial understanding of the market structure which is the basis for their long-term strategy.

Misconception # 2: The software / the algorithm will provide the answer to the segmentation problem.

In data-driven segmentation there is a wide misconception that exposing empirical data to a clustering algorithm (typically the Ward's clustering if hierarchical procedures are favoured by the researcher or *k*-means clustering if partitioning techniques are chosen) will result in THE answer. This is not the case. Each grouping computation might result in a different solution. This makes systematic exploration so important. While there will always be some kind of a numeric result emerging from a computation, this is neither the only nor the best possible grouping that can be found. Algorithms impose structure on data, they do not simply look at data in a neutral objective manner. It is important for segmentation researchers and tourism managers to acknowledge this fact.

Ignored dangers

While most of the unasked questions and fundamental misconceptions represent ignored dangers as well, this section aims at pointing out a few dangerous habits of data-driven segmentation that have emerged through the many years of applied data-driven segmentation in tourism and tourism research. This was investigated in detail by Baumann (2000) and Dolničar (2002a). The main points of these studies include:

Ignored danger # 1: Exploring empty space

It is crucial for any data-driven segmentation study to be based on data of sufficient sample size given the number of variables included as segmentation base. In the majority of segmentation studies in tourism research, this is not the case. The number of variables used defines the dimensionality of space. More variables mean increased space in which groups are searched for. If, for instance, ten travel motive statements are used to group tourists, the space that is explored is ten-dimensional. It takes a lot of respondents to fill that space sufficiently to actually find patterns, or groupings. The best protection against this danger is commonsense, more formalized security is provided by Formann (1984) who suggests the minimal sample size to include no less than 2^k cases (k = number of variables), preferably $5 \cdot 2^k$ if respondents answered the questions with *yes* or *no* (binary answer format).

Ignored danger # 2: Using inappropriate distance measures for the data

In tourism research it has become a standard procedure in guest surveys to use ordinal data scales (five- or seven-point scales that are ordered and indicate the strength of agreement or the strengths of guest satisfaction). Such data scales are not suitable for the standard distance measures implemented in clustering algorithms (mostly Euclidean distance). By applying distance measures for other data scales assumptions are made.

Assumptions that most probably are not satisfied (in the case of ordinal data and Euclidean distance especially the critical assumption of equal intervals between the answer categories). To illustrate the general ignorance towards this problem: two thirds of tourism segmentation studies use ordinal data and practically all of the authors who mention which measure of association underlies the computations (by the way, only 19 percent state this crucial information) use Euclidean distance. By doing this, the value of the collected market data is overestimated and the segmentation results thus do not only mirror pure market information.

Ignored danger # 3: Unquestioned data pre-processing

A standard clustering ritual has emerged over the years in tourism research that involves conducting factor analysis before clustering the data. This is a dangerous habit if applied in an uncritical manner. Typically, the variance explained by the retained factors is around 50 percent, meaning that the price researchers pay for reducing the number of variables is that they literally throw away half of the information they have collected from the marketplace. Neither factor analysis nor standardisation procedures should be used as part of some standardized segmentation procedure. They should only be applied if there is a good reason to do so, for instance the standardisation of different answer formats for different survey questions. The danger of uncritical pre-processing lies in constructing a segmentation solution in a transformed space, a space that has little to do with the initial market information collected from potential visitors.

Ignored danger # 4: The number of segments

In the case that true clusters do not exist in the empirical data used to construct a market segmentation solution (these include stable and constructive clustering in Figure 2), the decision how many segments to construct influences the results in the most dramatic way. For instance, grouping tourists into two segments based on vacation activities will lead to one highly active market segment and a rather passive, relaxation-oriented segment. If, however, the same tourists are grouped into ten segments, the active tourist will be further subdivided in segments with particular interests: for instance culturally active and sports-oriented tourist. The number of clusters therefore most strongly influences the results. Although many researchers have studied this problem in the past, there is no simple solution (Dimitriadou, Dolničar and Weingessel, 2002). But ignorance is certainly the worst solution. The minimum requirement for a properly conducted segmentation study therefore is to investigate whether certain numbers of clusters render more stable results, basically representing a measure of internal validity. If this is not the case, a wide variety of solutions has to be constructed and explored in detail before one specific

solution is chosen as the basis for an organisation's or destination's long-term strategy.

CONCLUSIONS (CRITICAL QUESTIONS FOR THE INFORMED TOURISM MANAGER)

In tourism, market segmentation has developed to become a very common tool in strategic marketing. However, as this chapter aimed at illustrating, there are still many unresolved issues in the area that can cause segmentation solutions to be anything between utterly absurd to strategically invaluable. Segmentation is a long-term building block of organisation success and as such represents one of the most critical managerial decisions. For these reasons it is most important for tourism managers to invest a lot of time and thinking into their segmentation solution and critically question it.

A few questions that might help a manager in doing this might be the following:

- Do I need to search for segments? Which benefits to I expect from treating different tourist groups differently?
- What is the purpose of my segmentation?
- Keeping this purpose in mind, what are segmentation criteria or segmentation bases that are relevant in this context?
- Are there single segmentation criteria that are known and guaranteed to split the tourists into relevant segments? In this case commonsense segmentation is sufficient.
- Which segmentation base is relevant and should be explored in an attempt to identify or construct market segments?
- Which one of the many possible data-driven market segmentation solutions is managerially most useful? If the market research company conducting the study claims there is only one true solution, consider switching to another market research company.
- Are the resulting market segments valid; either because they can be revealed repeatedly or because they differ with regard to additional information about the tourists?
- Which segment(s) are the best matching targets for the offer my organisation / destination can make?
- Which segments are most appropriate targets considering product positioning and competition knowledge?
- Does a chosen segment change over time?

Understanding the market, understanding the consumer and the variety among consumers remains a rich source of competitive advantage in tourism. However, the amount of readily available market data is constantly increasing. Computers and statistical software packages are becoming standard marketing tools. And new marketing graduates are learning the art of data exploration in the core subjects of their degree. Consequently, understanding the market will soon be a pre-requisite of organisational or destination survival in the highly competitive global tourism marketplace. Market segmentation makes use of the understanding of systematic variety among customers and as such represents a powerful tool for success. It functions like a magnifying glass for managers willing to look at the market, and invest some time into exploring it. And if they take the time to look, they are likely to “get what they see”. If they do not, their competitors might.

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BIOGRAPHY

Sara Dolnicar is a Senior Lecturer at the School of Management, Marketing & Employment Relations at the University of Wollongong. She completed her Masters degree in Psychology at the University of Vienna and her Masters / PhD degree in Business Administration at the Vienna University of Economics and Business Administration, where she worked from 1994 to 2002 as an Assistant Professor at the Institute for Tourism and Leisure Studies. During this same period of time she acted as Secretary General of the Austrian Society for Applied Research in Tourism. In her PhD thesis she compared neural networks with traditional algorithms for behavioural market segmentation. This became the launching pad for further work in this area. Her subsequent contributions include conceptual and methodological contributions in the area of *a posteriori* market segmentation, development of perceptions based market segmentation (PBMS), investigation of specific market segments among tourists and critical reviews of cluster-analysis based segmentation studies. Most of these contributions resulted from interdisciplinary teamwork in the Research Centre "Adaptive Modelling and Information Systems in Economics and Management Science", a joint endeavour of three Viennese universities funded by the Austrian Research Foundation.

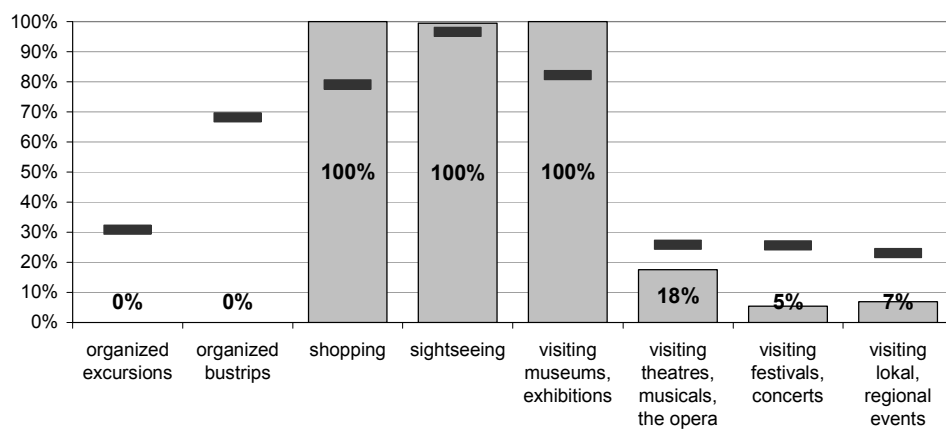


Figure 1: Vacation activity profile of the individual culture explorers (Source: Dolničar, 2002)

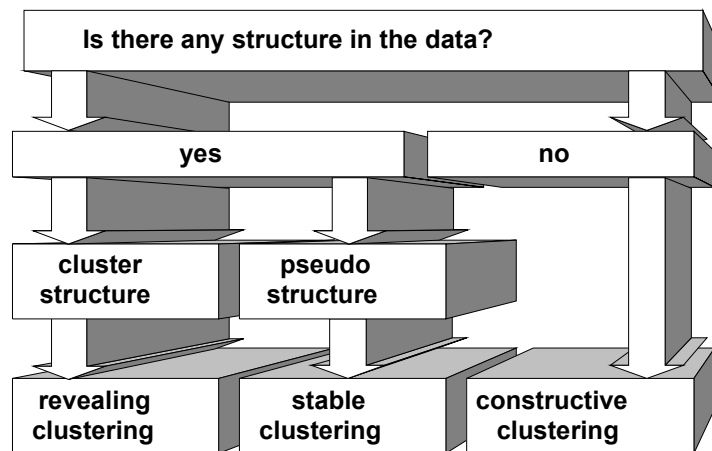


Figure 2: Conceptual Data-Driven Segmentation Framework (Source: Dolničar and Leisch, 2001)

ⁱ A methodological toolbox for answering the questions that help to classify which segmentation concept is required for a particular data set is presently being developed.