

Step 1: Deciding (not) to Segment

The key implication is that the organisation needs to commit to the segmentation strategy on the long term. The first group of barriers relates to senior management. Lack of leadership, pro-active championing, commitment and involvement in the market segmentation process by senior leadership undermines the success of market segmentation.

A second group of barriers relates to organisational culture. Lack of market or consumer orientation, resistance to change and new ideas, lack of creative thinking, bad communication and lack of sharing of information and insights across organisational units, short-term thinking, unwillingness to make changes and office politics have been identified as preventing the successful implementation of market segmentation.

If senior management and the team tasked with segmentation do not understand the very foundations of market segmentation, or if they are unaware of the consequences of pursuing such a strategy, the attempt of introducing market segmentation is likely to fail.

Step 2: Specifying the Ideal Target Segment

Segment Evaluation Criteria

One set of evaluation criteria can be referred to as knock-out criteria. These criteria are the essential, non-negotiable features of segments that the organisation would consider targeting. The second set of evaluation criteria can be referred to as attractiveness criteria. These criteria are used to evaluate the relative attractiveness of the remaining market segments – those in compliance with the knock-out criteria.

The first set of such criteria includes substantiality, measurability and accessibility.

- The segment must be homogeneous; members of the segment must be similar to one another.
- The segment must be distinct; members of the segment must be distinctly different from members of other segments.
- The segment must be large enough; the segment must contain enough consumers to make it worthwhile to spend extra money on customising the marketing mix for them.
- The segment must be matching the strengths of the organisation; the organisation must have the capability to satisfy segment members' needs.
- Members of the segment must be identifiable; it must be possible to spot them in the marketplace.
- The segment must be reachable; there has to be a way to get in touch with members of the segment in order to make the customised marketing mix accessible to them.

Attractiveness criteria are not binary in nature. Segments are not assessed as either complying or not complying with attractiveness criteria. Rather, each market segment is rated; it can be more or less attractive with respect to a specific criterion. The attractiveness across all criteria determines whether a market segment is selected as a target segment in Step 8 of market segmentation analysis.

At the end of this step, the market segmentation team should have a list of approximately six segment attractiveness criteria. Each of these criteria should have a weight attached to it to indicate how important it is to the organisation compared to the other criteria. The typical approach to weighting is to ask all team members to distribute 100 points across the segmentation criteria. These allocations then have to be negotiated until agreement is reached. Optimally, approval by the advisory committee should be sought because the advisory committee contains representatives from multiple organisational units bringing a range of different perspectives to the challenge of specifying segment attractiveness criteria.

Step 3: Collecting Data

Segmentation Variables

Empirical data forms the basis of both commonsense and data-driven market segmentation. Empirical data is used to identify or create market segments and –later in the process – describe these segments in detail.

In commonsense segmentation, the segmentation variable is typically one single characteristic of the consumers in the sample.

Descriptor variables are used to describe the segments in detail. Describing segments is critical to being able to develop an effective marketing mix targeting the segment. Typical descriptor variables include socio-demographics, but also information about media behaviour, allowing marketers to reach their target segment with communication messages.

The difference between commonsense and data-driven market segmentation is that data-driven market segmentation is based not on one, but on multiple segmentation variables. How critical the quality of empirical data is for developing a valid segmentation solution.

When commonsense segments are extracted – even if the nature of the segments is known in advance – data quality is critical to both (1) assigning each person in the sample to the correct market segment, and (2) being able to correctly describe the segments. The correct description, in turn, makes it possible to develop a customised product, determine the most appropriate pricing strategy, select the best distribution channel, and the most effective communication channel for advertising and promotion.

Geographic Segmentation

When geographic segmentation is used – the consumer's location of residence serves as the only criterion to form market segments.

The key advantage of geographic segmentation is that each consumer can easily be assigned to a geographic unit. As a consequence, it is easy to target communication messages, and select communication channels (such as local newspapers, local radio and TV stations) to reach the selected geographic segments.

The key disadvantage is that living in the same country or area does not necessarily mean that people share other characteristics relevant to marketers, such as benefits they seek when purchasing a product.

Despite the potential shortcomings of using geographic information as the segmentation variable, the location aspect has experienced a revival in international market segmentation studies aiming to extract market segments across geographic boundaries. Such an approach is challenging because the segmentation variable(s) must be meaningful across all the included geographic regions, and because of the known biases that can occur if surveys are completed by respondents from different cultural backgrounds .

Socio-Demographic Segmentation

Typical socio-demographic segmentation criteria include age, gender, income and education. Socio-demographic segments can be very useful in some industries.

As is the case with geographic segmentation, socio-demographic segmentation criteria have the advantage that segment membership can easily be determined for every consumer.

Psychographic Segmentation

When people are grouped according to psychological criteria, such as their beliefs, interests, preferences, aspirations, or benefits sought when purchasing a product, the term psychographic segmentation is used.

As a consequence, most psychographic segmentation studies use a number of segmentation variables, for example: a number of different travel motives, a number of perceived risks when going on vacation. The psychographic approach has the advantage that it is generally more reflective of the underlying reasons for differences in consumer behaviour.

The disadvantage of the psychographic approach is the increased complexity of determining segment memberships for consumers. Also, the power of the psychographic approach depends heavily on the reliability and validity of the empirical measures used to capture the psychographic dimensions of interest.

Behavioural Segmentation

Another approach to segment extraction is to search directly for similarities in behaviour or reported behaviour. The key advantage of behavioural approaches is that – if based on actual behaviour rather than stated behaviour or stated intended behaviour – the very behaviour of interest is used as the basis of segment extraction. As such, behavioural segmentation groups people by the similarity which matters most.

Data from Survey Studies

Survey data is cheap and easy to collect, making it a feasible approach for any organisation. But survey data – as opposed to data obtained from observing actual behaviour – can be contaminated by a wide range of biases.

1. Choice of Variables -Carefully selecting the variables that are included as segmentation variable in commonsense segmentation, or as segmentation variables in data-driven segmentation is critical to the quality of the market segmentation solution. Unnecessary variable included as segmentation variables divert the attention of the segment extraction algorithm away from information critical to the extraction of optimal market segments. Such

variables are referred to as noisy variables or masking variables and have been repeatedly shown to prevent algorithms from identifying the correct segmentation solution.

2. **Response Options**-Answer options provided to respondents in surveys determine the scale of data available for subsequent analyses. Because many data analytic techniques are based on distance measures, not all survey response options are equally suitable for segmentation analysis. Options allowing respondents to answer in only one of two ways, generate binary or dichotomous data. Such responses can be represented in a data set by 0s and 1s. The distance between 0 and 1 is clearly defined and, as such, poses no difficulties for subsequent segmentation analysis. Options allowing respondents to select an answer from a range of unordered categories correspond to nominal variables. Options allowing respondents to indicate a number, such as age or nights stayed at a hotel, generate metric data. Metric data allow any statistical procedure to be performed (including the measurement of distance), and are therefore well suited for segmentation analysis. The most commonly used response option in survey research, however, is a limited number of ordered answer options larger than two.
3. **Response Styles**-Survey data is prone to capturing biases. A response bias is a systematic tendency to respond to a range of questionnaire items on some basis other than the specific item content (i.e., what the items were designed to measure). If a bias is displayed by a respondent consistently over time, and independently of the survey questions asked, it represents a response style. Response styles affect segmentation results because commonly used segment extraction algorithms cannot differentiate between a data entry reflecting the respondent's belief from a data entry reflecting both a respondent's belief and a response style.

Sample Size-sample size should be at least $2p$ (better five times $2p$), where p is the number of segmentation variables. This rule of thumb relates to the specific purpose of goodness-of-fit testing in the context of latent class analysis when using binary variables. It can therefore not be assumed to be generalisable to other algorithms, inference methods, and scales. the sample size should – in the simple case of equal cluster sizes – be at least ten times the number of segmentation variables times the number of segments in the data ($10 \cdot p \cdot k$ where p represents the number of segmentation variables and k represents the number of segments). If segments are unequally sized, the smallest segment should contain a sample of at least $10 \cdot p$.

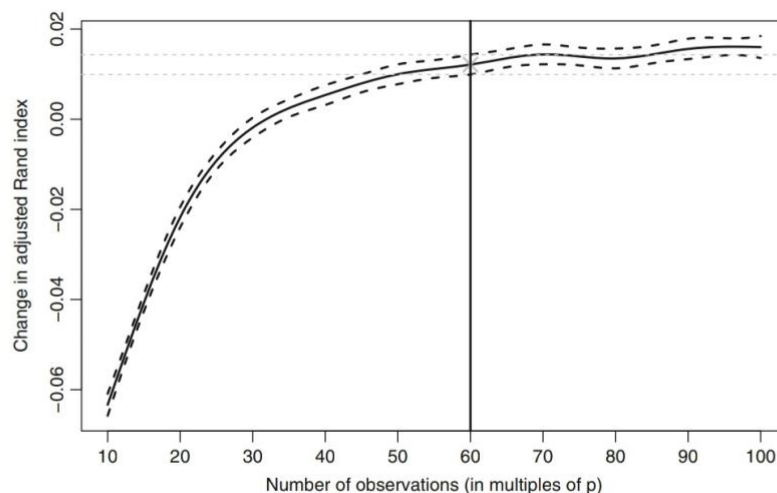
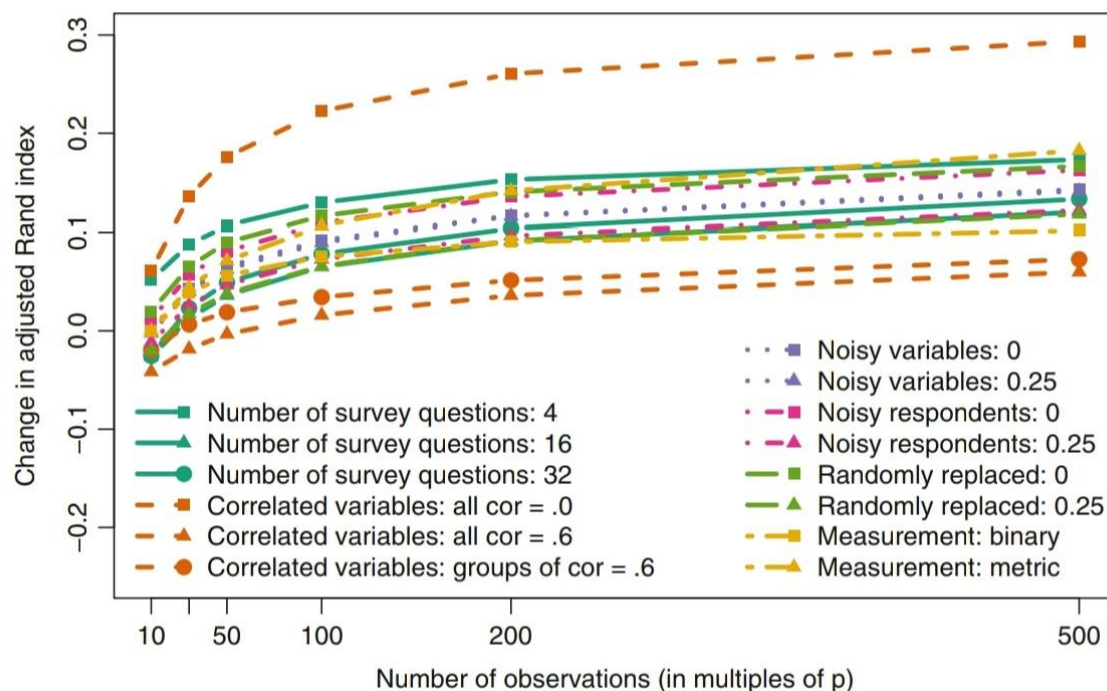


Fig. 5.2 Effect of sample size on the correctness of segment recovery in artificial data. (Modified from Dolnicar et al. 2014)

In addition, some of the characteristics of survey data discussed above have been shown to affect segment recovery, specifically: sampling error, response biases and response styles, low data quality, different response options, the inclusion of irrelevant items, and correlation between blocks of items.



It can be concluded from the body of work studying the effects of survey data quality on the quality of market segmentation results based on such data that, optimally, data used in market segmentation analyses should

- contain all necessary items;
- contain no unnecessary items;
- contain no correlated items;
- contain high-quality responses;
- be binary or metric;
- be free of response styles;
- include responses from a suitable sample given the aim of the segmentation study; and
- include a sufficient sample size given the number of segmentation variables (100 times the number of segmentation variables).

Step 9: Customising the Marketing Mix

Marketing mix mainly consists of 4Ps -Product, Price, Promotion and Place. Other areas of strategic marketing, most importantly: positioning and competition. Segmentation process is frequently seen as part of segmentation-targeting-positioning. The segmentation-targeting-positioning approach postulates a sequential process.

The process starts with market segmentation (the extraction, profiling and description of segments), followed by targeting (the assessment of segments and selection of a target segment), and finally positioning (the measures an organisation can take to ensure that their product is perceived as distinctly different from competing products, and in line with segment needs).



illustrates how the target segment decision – which has to be integrated with other strategic areas such as competition and positioning – affects the development of the marketing mix. For reasons of simplicity, the traditional 4Ps model of the marketing mix including Product, Price, Place and

Promotion serves as the basis of this discussion. Be it twelve or four, each one of those aspects needs to be thoroughly reviewed once the target segment or the target segments have been selected.

The selection of one or more specific target segments may require the design of new, or the modification or re-branding of existing products (Product), changes to prices or discount structures (Price), the selection of suitable distribution channels (Place), and the development of new communication messages and promotion strategies that are attractive to the target segment (Promotion).

the choice of segmentation affects:

1. The segmentation analysis is undertaken to inform pricing decisions, price sensitivity, deal proneness, and price sensitivity represent suitable segmentation variables.
2. If the market segmentation analysis is conducted to inform advertising decisions, benefits sought, lifestyle segmentation variables, and psychographic segmentation variables are particularly useful, as is a combination of all of those.
3. If the market segmentation analysis is conducted for the purpose of informing distribution decisions, store loyalty, store patronage, and benefits sought when selecting a store may represent valuable segmentation variables.

Product

One of the key decisions an organisation needs to make when developing the product dimension of the marketing mix, is to specify the product in view of customer needs. Often this does not imply designing an entirely new product, but rather modifying an existing one. Other marketing mix decisions that fall under the product dimension are: naming the product, packaging it, offering or not offering warranties, and after sales support services.

Using biclustering presents a good opportunity for illustrating how product design or modification is driven by target segment selection.

Price

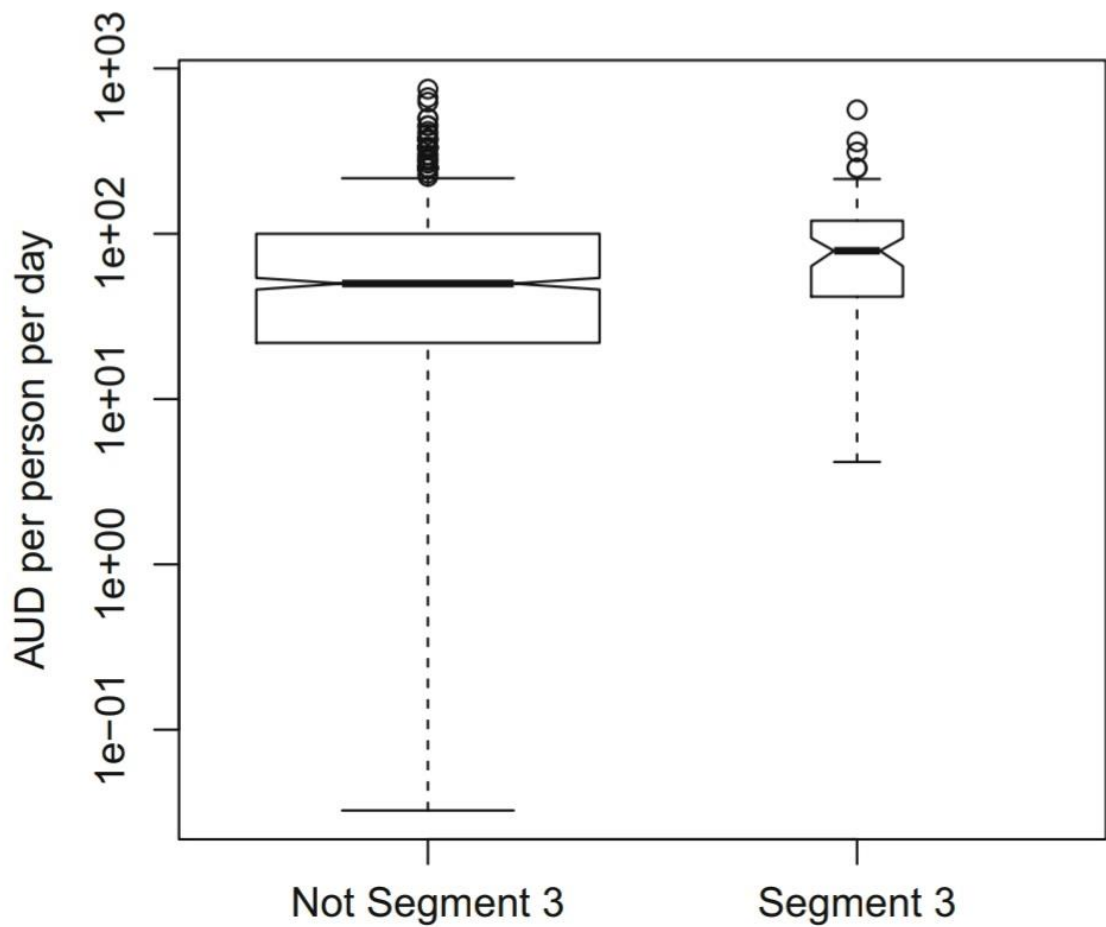
Typical decisions an organisation needs to make when developing the price dimension of the marketing mix include setting the price for a product, and deciding on discounts to be offered.

To be able to compare members of segment 3 to tourists not belonging to segment 3, we construct a binary vector containing this information from the bicluster solution. We use this information to construct a vector containing the segment membership for each consumer.

Then we loop through the different clusters extracted by the biclustering algorithm, and assign the rows (respondents) contained in this cluster the corresponding cluster number.

It also contains missing values because clustering does not assign all consumers to a cluster. We obtain the number of consumers assigned to each segment, and the number of consumers not assigned by tabulating the vector.

Members of segment 3 have higher vacation expenditures per person per day than other tourists. This is excellent news for the tourist destination; it does not need to worry about having to offer the MUSEUMS, MONUMENTS & MUCH, MUCH MORE product at a discounted price. If anything, the insights gained from Fig. suggest that there is potential to attach a premium price to this product.

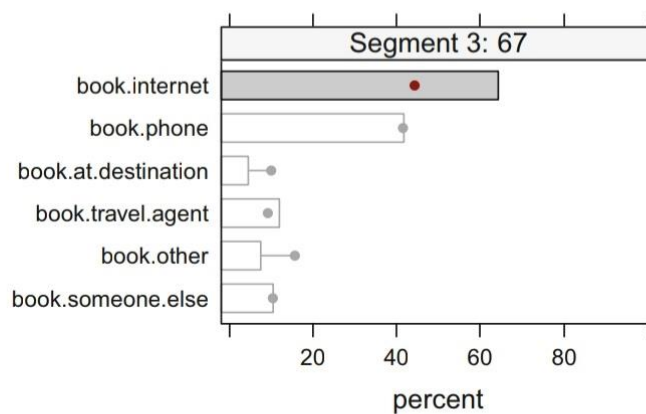


Place

The key decision relating to the place dimension of the marketing mix is how to distribute the product to the customers. This includes answering questions such as:

1. should the product be made available for purchase online or offline only or both;
2. should the manufacturer sell directly to customers; or should a wholesaler or a retailer or both be used.

Fig. 11.3 Hotel booking avenues used for the last domestic holiday by segment 3 and by the average tourist

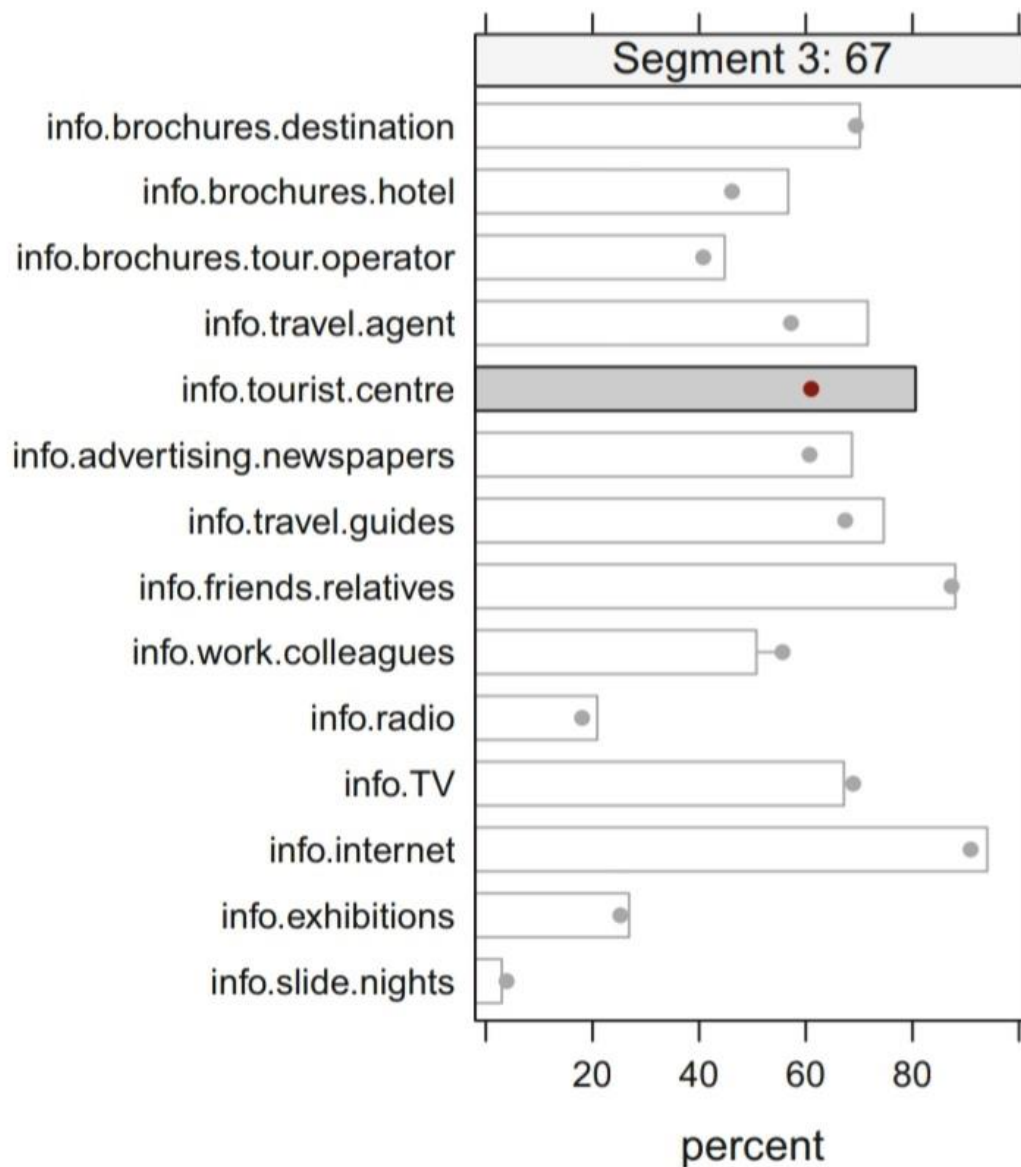


The above fig. indicates that members of segment 3 differ from other tourists in terms of how they booked their hotel on their last domestic vacation: they book their hotel online much more frequently than the average tourist. This information has clear implications for the place dimension of the marketing mix. There must be an online booking option available for the hotel. It would be of great value to also collect information about the booking of other products, services and activities by members of segment 3 to see if most of their booking activity occurs online, or if their online booking behaviour is limited to the accommodation.

Promotion

Typical promotion decisions that need to be made when designing a marketing mix include: developing an advertising message that will resonate with the target market, and identifying the most effective way of communicating this message. Other tools in the promotion category of the marketing mix include public relations, personal selling, and sponsorship.

members of segment 3 rely – more frequently than other tourists – on information provided by tourist centres when deciding where to spend their vacation. This is a very distinct preference in terms of information sources. One way to use this insight to design the promotion component of the marketing mix is to have specific information packs on the MUSEUMS, MONUMENTS & MUCH, MUCH MORE product available both in hard copy in the local tourist information centre at the destination as well as making it available online on the tourist information centre's web page.



Information sources used by segment 3 and by the average tourist.

Next fig. points to another interesting piece of information about segment 3. Its members have a TV channel preference for Channel 7, differentiating them from other tourists. Again, it is this kind of information that enables the destination to develop a media plan ensuring maximum exposure of members of segment 3 to the targeted communication of, for example, a MUSEUMS, MONUMENTS & MUCH, MUCH MORE product.

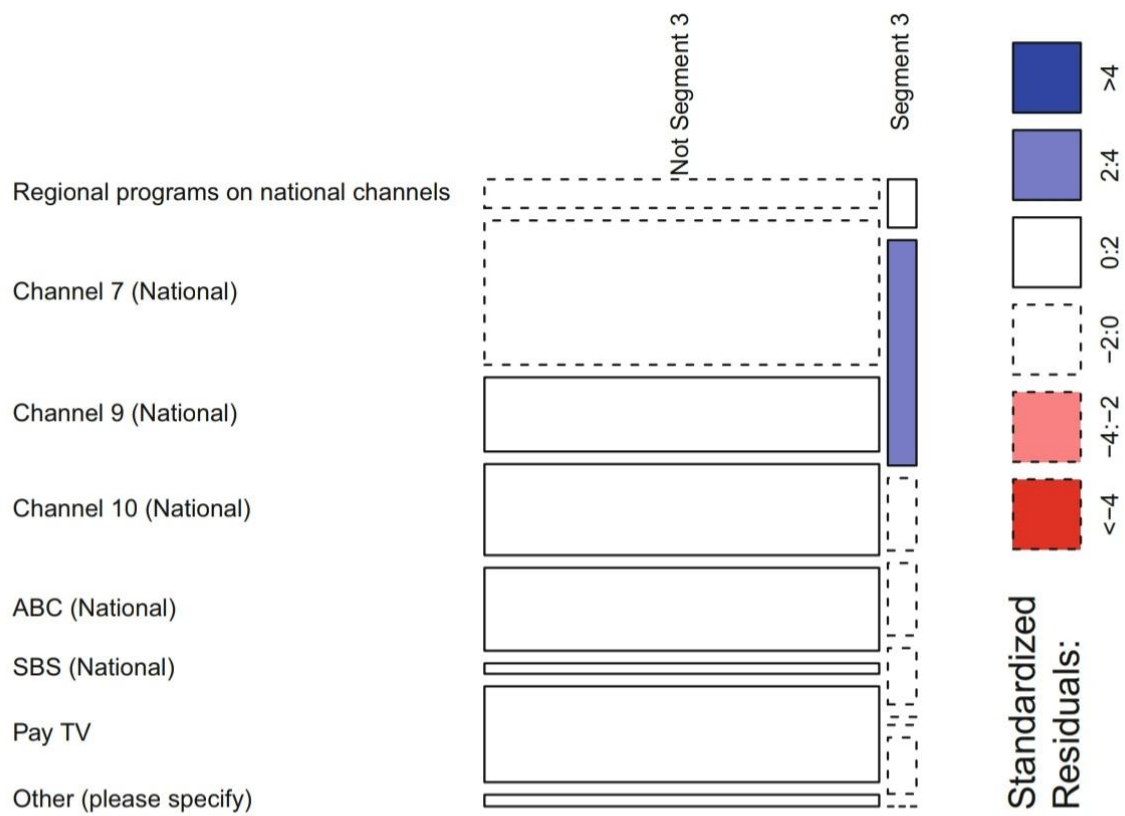


Fig. 11.5 TV station most frequently watched by segment 3 and all other tourists