Segmentation Do's and Don'ts

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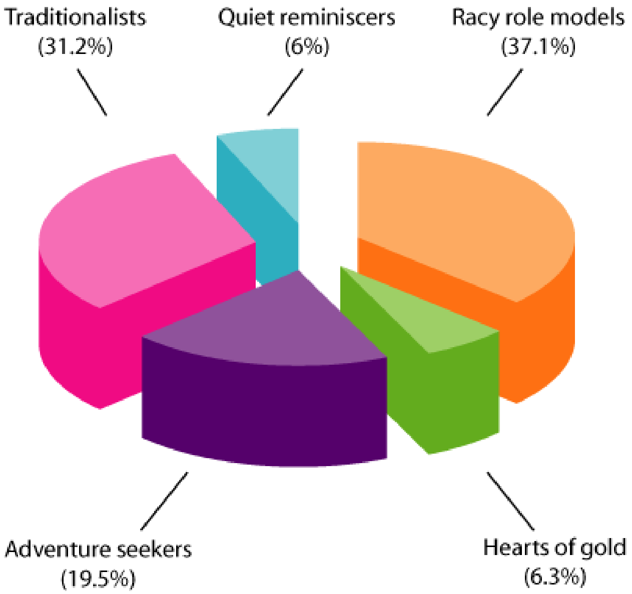
Presentation is segmented as follows:

1. **What is Segmentation**
2. **Pre-conditions before conducting segmentation**
3. **Segmentation within Value Creation Chain**
4. **Segmentation or Predictive Models**
5. **Traps people fall into**
6. **Sub-segmentation**

1) Segmentation… what does it mean?

Google "segmentation" turns up various images:



Wikipedia has sentences like:

- distinct from other segments (different segments have different needs),
- homogeneous within the segment (exhibits common needs)
- responds similarly to a market stimulus
- can be reached by a market intervention

The practice of Segmentation…

Why use it?

When to use it?

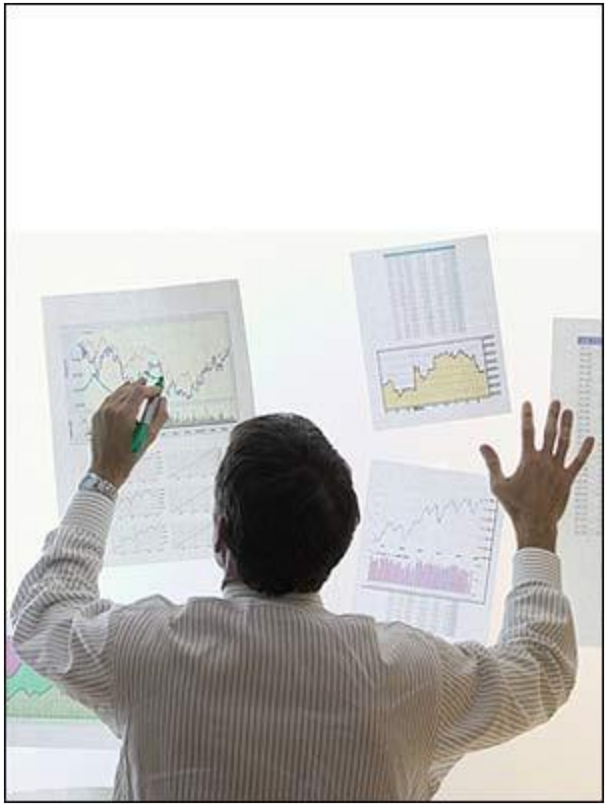
What to expect when I use it?

Relation to everything else I'm already doing?

The two species in a Marketing department...

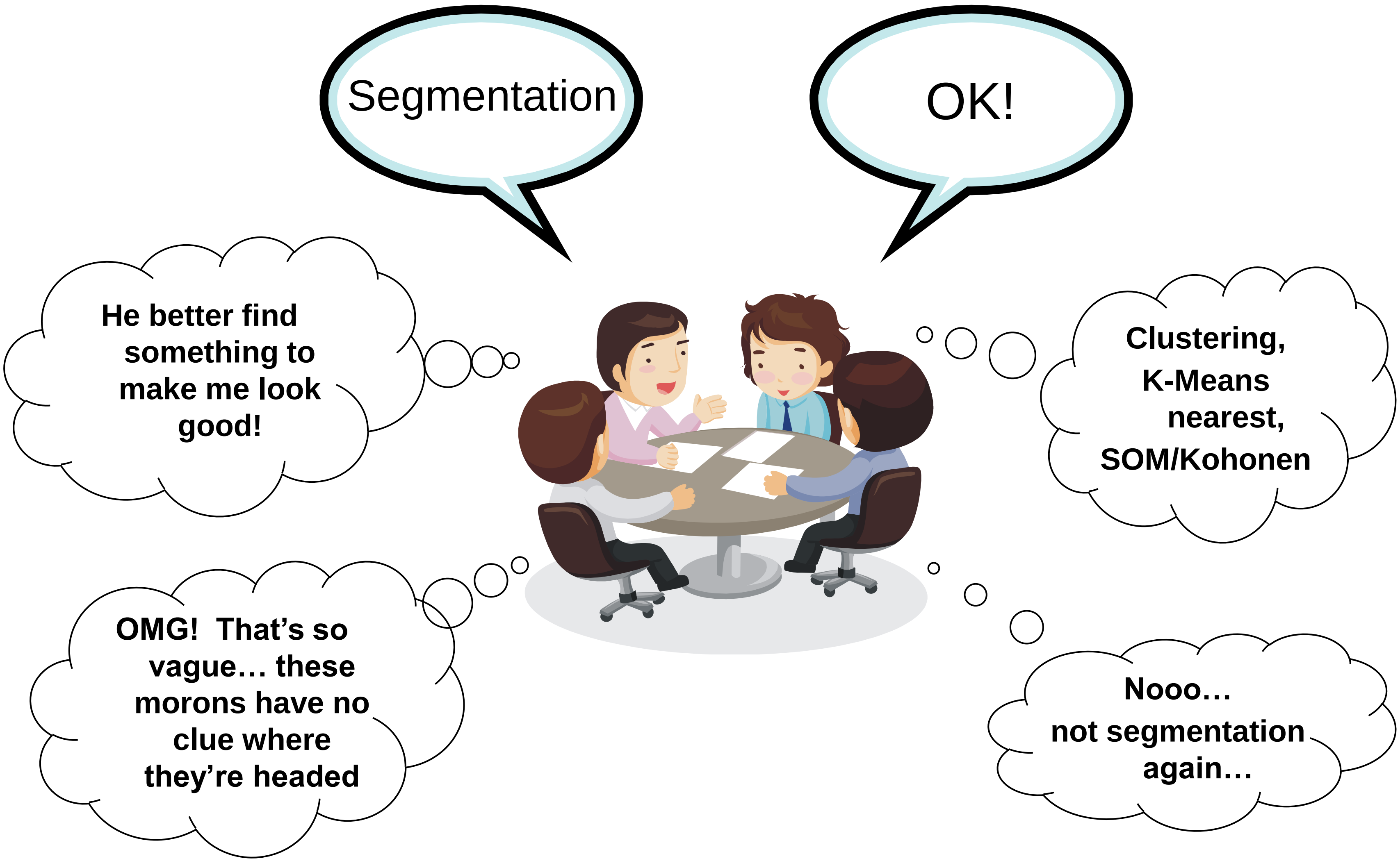
Marketer

Statistician



(This is an example of segmentation at work)

One day, after attending a conference, Marketer says…



2) Pre-conditions before launching into segmentation…

You need to answer these questions before hitting the "GO" button

Why Segment

- You believe, or see enough evidence that, there are people who warrant different treatment systematically on a large scale

When to Segment

- When you have ability to take action. Otherwise it's just an analytical exercise (Danger!).
- When you can clearly state the relevant dimensions / attributes. Inability to articulate is a major red flag.
- When you have enough data

What do you get

- Segments and their profiles
- How many is too few, just right, or too many is a matter of judgment

Impacts

- What processes would benefit from this and need to be changed?
- What should be left alone

3) Segmentation is part of a Value Creation Chain…

When you take a step back and look at the overall business change process, segmentation sits at the beginning of the value creation chain.

It is used for probing and assessing a situation.

It is used to generate ideas on what to do.

The other analytical powerhouse, Predictive Models, sit at the other end.

It serves a different purpose from Segmentation.

Many people don’t understand this and confuse the two causing analytical chaos.

4) Best Practice: Use Tools for what they are good at…

	Segmentation	Predictive Models
Idea Generation	This is the sweet spot of segmentation: the revelation of structures in the customer base so that products and solutions can be tailored. If segments represent different kinds of customers, usually Marketers can brain-storm new approaches, new incentives, new products, … etc.	While model key drivers are usually meaningful, they don't lend themselves well to discussions of what to do with those who do not respond. Predictive Models are designed to predict some sort of outcome. It is not the right tool to describe the entire customer landscape.
Process Efficiency	Segmentation operate fairly coarsely. The whole segment is usually treated the same way. To further differentiate and reveal further details, people get trapped into "recursive sub-segmentation".	Predictive models give predictions about each subject, allowing decisions to be made with great precision. This is the sweet spot of predictive models.
Is About	**Experimentation** **Doing something new, something different** **<u>Creating new processes</u>**	**Existing process** **Explaining how something is working** **<u>Refining existing processes</u>**

5) Worst Practices

There are endless ways to abuse segmentation.
Here are three common possibilities:

1. **Measuring inter-segment migration**

2. **Use models and segments together to improve campaign response rate**

3. **Demanding segment specific predictive models**

5) Worst Practices

1. Measuring inter-segment migration

With consumer behaviour, the resulting clusters are usually not completely disjoint. Segments are somewhat distinct from each other and somewhat homogeneous within a segment. While very useful to help guide thinking, because we say "there are x segments", people start to think of them as truly distinct when they're not.

- ✗ Don't measure how many moved from one segment into another

Most of the transitions are from people close to the cluster boundaries. Watching them flit across the line and back is not useful. But the temptation is strong to say "we created X type A customers this year" as a measure of success. This can create a lot of work for the performance reporting group, and spawn a lot of variance analysis to no avail.

- ✓ **Much better to measure "for those who started as Type A, how have they grown over time"**

Measuring how this set of customers grew in value is not dependent on them crossing some sort of statistical boundary line. Measure something truly useful and meaningful to the business, not something used for idea generation.

Measure Reality, not Imagination

Worst Practices continued…

2. Use models and segments together to improve campaign response rate

Facts:

- Segments are to stimulate ideas on how to do something differently.
- Predictive Models can’t be beat in identifying likely responders to a campaign.

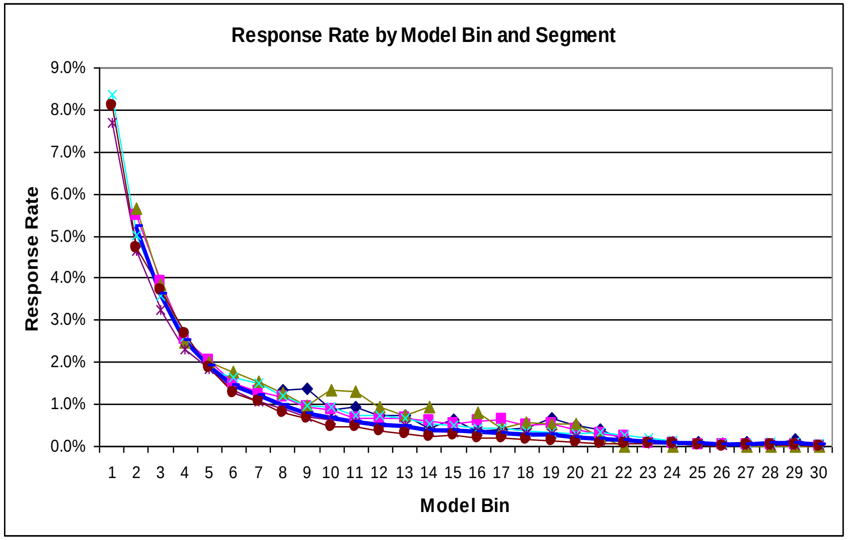
When you have built a model from campaign response, if done correctly, there should be no way to improve upon results if you do the same thing again.

Yet, time and time again, campaigns are designed using both Segments and Models. When probed as to why is the campaign designed this way, the answer is “I want to increase response rate”.

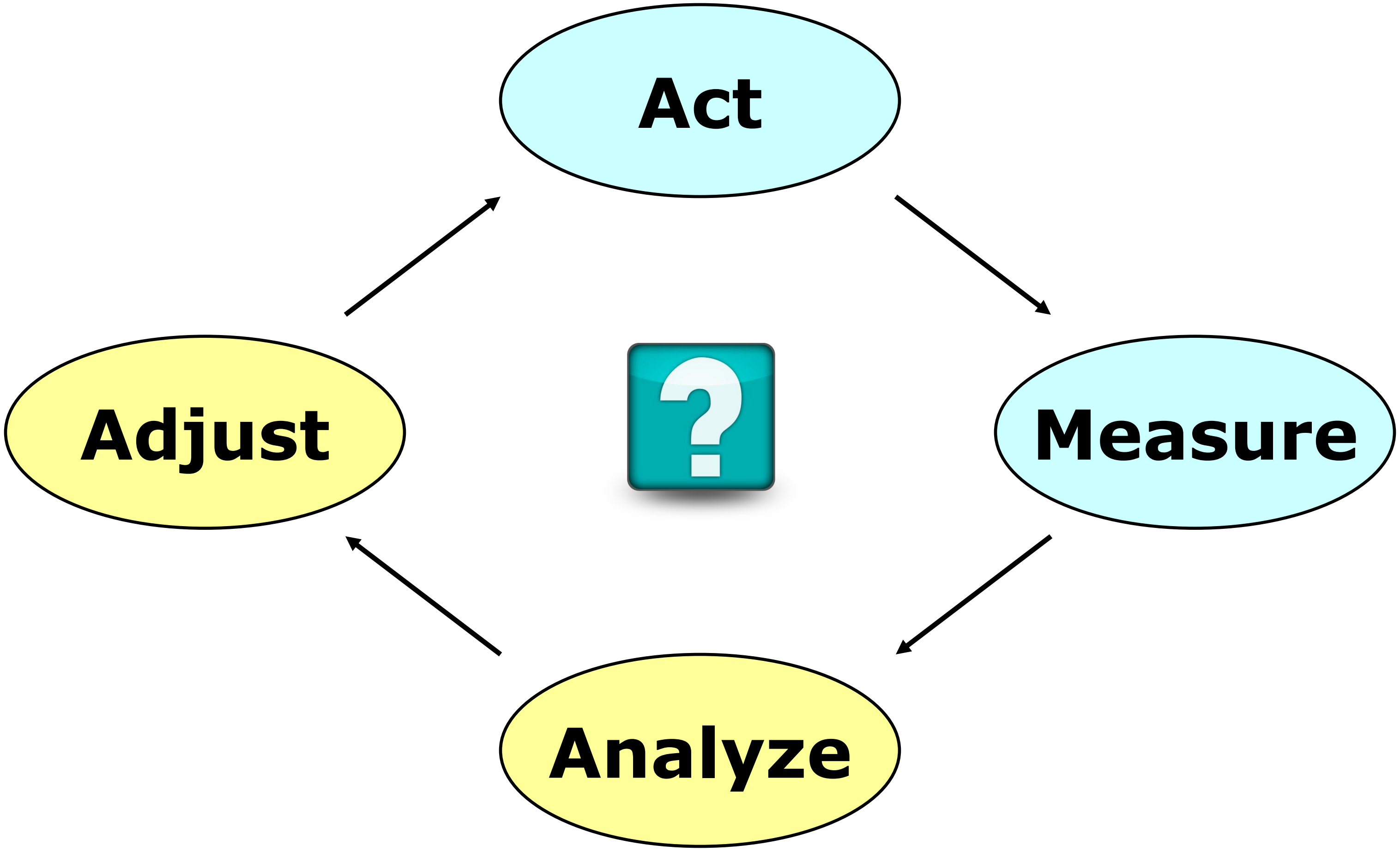
Diagnostics on actual performance show the graph on the right.

If you do the same thing again, you can’t improve results beyond a well crafted model.

If you want to improve response rate, change your process to generate higher response!



Which part of the loop are you on?



Worst Practices continued…

3. **Demanding segment specific predictive models**

This ask comes up often where people believe their segment is unique, and that to increase response rate, they should have predictive models built specifically tailored to their segment.

It boils down to "Is one general model good enough, or do we need multiple models". The answer is it depends. You need to try a few times to find out.

Do the diagnostic of model performance by segment to see if it fits all segments equally well. Take a specific segment and build a model. Compare the results to see if there's gain from the sub-model.

If the sub-model results are significantly better, one could argue the modeler did not do a good job in the first place.

Many times, the benefit of building segment specific models, has not been to increase business results significantly, but to keep modelers employed longer.

To improve results, change the underlying process, don't just look to data analytics. (Of course, data analytics needs to be done well)

Oh, there's a technical one too…

Grab data, shove it into magic box, close your eyes, and clusters come out!

Typically, clustering depends on some measure of **distance**. It is unlikely that you will be fortunate enough to segment on variables that all have the same units. Even if they do, they are unlikely to have the same variance (spread).

What does distance mean in this case? Many people will simply "standardize" everything and leave it as "accepted standard practice". Is that good enough?

Answer is: distance is whatever you want it to mean. So make ensure the distance measure supports the things you are looking for. Go back to the purpose of segmentation and let that guide you in how to scale the different variables to achieve the effects you are looking for.

In this sense, clustering isn't strictly defined by the data itself as many people wish it to be. As much as people describe it as "Let the data tell the truth", it is very much governed and shaped by the purpose and the expertise of the statistician.

Truth is in the…

Truth is in the Data

… eyes of the Beholder of the …

6) Sub-segments, anyone?

We have a number of segmentations on different dimensions, e.g.,

- Current value
- Potential value
- Future value
- Life stage
- Lifestyle
- Channel usages
- … etc

Together, they form a "segmentation matrix". Depending on the business issue, the appropriate ones are used.

Many people speak of sub-segmentation, particularly Consultants. In simple cases, you may be able to take an existing segmentation scheme and sub-segment it hierarchically. When the situation has many interesting but different dimensions of behaviour, we find that segmenting sets of dimensions separately provides us with greater flexibility to meet a wide variety of different business problems.

The End…

Questions