Back to the Future

Using market segmentation studies to monitor and predict trends Rob Greenaway. New Zealand Recreation Association (NZRA) National Conference, Christchurch, 2001

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Last year I was in a fish and chip shop waiting for my three fish and one scoop. As you do, I was reading a New Idea or something similar and came across a very interesting market segmentation study. It was, in fact, a collection of what might be the world's oldest market segmentation methodologies being used to predict an important eventuality.

There was astrology – lumping people into groups depending on their birth date. There was palmistry, subdividing us by how our hands line up. Then there was numerology, which must be the most stupid thing you can do with numbers. A handwriting analyst was included, making assumptions based on the curls of our serifs. Several other serious-sounding New Age oracles made their contribution to the debate.

The numerologist said Dodi and Diana would split and Diana would marry a wonderful English gentleman and settle down to a long life of good deeds. The astrologer predicted a long-term relationship which would descend into a stable friendship, but Diana would find other loves. The handwriting analyst thought she would devote herself to her two sons and become celibate.

Oddly enough, none wrote, "I predict she'll die in about a month's time in a high speed car accident in a Paris tunnel, and millions will mourn her passing." You'd think something that significant would have passed through the ether to these wise sages.

This analysis shows two things.

First – those soothsayers are all plonkers.

Second, we are fascinated by what the future holds. Life is uncertain and scary. When we are talking about attempting to predict the future, we are talking about reducing risk, and risk can be both threatening and exciting. Generally, we seek to reduce risk and increase certainty. In our profession we sweat over whether our \$100,000 skatepark will be a heavy white elephant in two years. In life we want to know whether we should be going for a capped or a floating mortgage rate. Our lives revolve around risk reduction. The longer we live, and the more insular, competitive, selfish and scared of failure we become, the more paranoid about the future we will get - and the more attractive will be any mechanism that reduces our fear of the future.

Market segmentation analysis is one such tool.

Before I get into market segmentation analyses, I'd like to gain a little perspective on trend analysis and predicting the future. As Richard Bach said – Perspective – use it or lose it.

The first bit of perspective is something that I picked up from the National Programme on Sunday a couple of weeks ago. This is the difference between forecasting and foresight.

In predicting trends we have two basic tools. Forecasting is pretty much a mathematical exercise. A population might have been growing at 5% per annum for the past five years and we therefore assume it will continue to grow at a similar rate in the future, all other things being equal (*ceteris paribus*). Moore's law uses past trends to predict that computing power doubles every 18 months, which it has, apparently, since 1965.

The problem with forecasting is, the world is an incredibly unpredictable thing. The future is such a weird and crazy place that forecasting many things – and especially the key things that will have a massive impact on our lives – is impossible. You couldn't have forecast the development of the jetski, unfortunately. I certainly couldn't forecast what new wave of fashion will be used to make teenagers look even more silly. You can't forecast the outbreak of a hitherto unknown disease. If forecasting was so jolly good, we'd all invest in the stock market and be millionaires.

That's where foresight comes in. Foresight relies on forecasting, but it goes further than that. Foresight uses gut feeling and the wisdom of ages. However, I think much of that wisdom should go into understanding that with foresight, there's a high chance of being wrong. A futures analyst I heard interviewed a few years ago was unwilling to make many predictions, but the one thing she was sure about was the imminent rise of the teashop. That is, as opposed to the rise of the coffee shop.

Foresight is often what we use to attempt to solve the problems highlighted by forecasting. The best example I can think of is the Hillary Commission's Sportville programme. It considers the current negative trends being experienced by clubs, and changes in our social structure, then offers a vision of the way things could be in the future. I think it's a smart use of data and wisdom.

We frequently use foresight in recreation planning when we get focus groups together to consider the options open to leisure providers. For the foresight to have value, however, groups need good data. Where possible, I like to present some good data at or before focus groups to give the team a common footing for going ahead.

There's one trick with foresight which I discovered last month. I was in the Environment Court presenting some recreation evidence and was warned off using a piece of Hillary Commission research by our lawyer. It was *Sport and Active Leisure: The Future Marketing Environment (January 2000),* which is an interesting piece of work, and very much based on foresight, which is based on forecasting. The paper discusses eight trends using the following titles:

- Consumer Society
- Choice and Competition
- Shrinking time
- Disappearing communities
- Wealth Gaps
- Family Meltdown
- Metro Magnetism
- Greed is good

Since forecasting is based on a bunch of smart people sitting around a whiteboard, the opinions were considered too open to cross-examination. The titles didn't help – they sounded too 'markety'.

My second bit of perspective is offered by Peter Bernstein in his book on the history of risk management, *Against the Gods*¹. Bernstein refers to an exercise in risk analysis called Prospect Theory. The theory is pretty much irrelevant here, but it raises some interesting issues in regard to our general failure to be consistent in our risk-taking decisions when facing choices that offer the same outcome, but that are couched in positive or negative terms. Psychologists refer to the 'cognitive difficulties' that make it difficult for us humans to behave rationally when presented with data upon which we must base a decision. It is the factors behind these cognitive difficulties that I find relevant to the planning we do.

The factors that Bernstein lists are:

- We tend to ignore the common components of a problem and concentrate on each part in isolation.
- We have trouble recognising how much information is enough and how much is too much.
- We pay excessive attention to low-probability events accompanied by high drama and overlook events that happen in routine fashion.
- We display risk-aversion when we are offered a choice in one setting and then turn into risk-seekers when we are offered the same choice in a different setting.
- We treat costs and uncompensated losses differently, even though their impact on wealth is identical.
- We start out with a purely rational decision about how to manage our risks and then extrapolate from what may be only a run of good luck. As a result, we forget about regression to the mean, overstay our positions (don't cut our losses), and end up in trouble.

Lastly – regression to the mean. From my reading of statistics texts and treatises on trend analysis, regression to the mean is probably the most basic premise that we need to remember.

Regression to the mean is a general principle that suggests that in any trend, a deviation from the norm will generally return to that norm, or thereabouts. This principle is from where we get the normal distribution curve.

Here's the story. Francis Galton, who was born in 1822, spent some years measuring peas. He discovered that if he planted a set of small peas, the size of the offspring were closer to the size of an average pea. If he planted large peas, the offspring were also closer in size to that average pea.

This might not sound very exciting, but Peter Bernstein in *Against the Gods* accurately describes the finding as 'dynamite'.

"Galton," Bernstein writes, "transformed the notion of probability from a static concept ... into a dynamic process in which the successors to the outliers are predestined to join the crowd at the centre. Change and motion from the outer limits towards the centre are constant, inevitable and foreseeable.... The driving force is always towards the average, toward the restoration of normality.

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¹ Bernstein, P.L. (1996) Against the Gods, Wiley

"If this narrowing process was not at work – if large peas produced ever-larger offspring and if small peas produced ever-smaller offspring – the world would consist of nothing but midgets and giants."

Of course, the trick with predicting trends is knowing when the regression will commence – when will the pendulum begin to swing back – and will the mean be in the same place as before. Because, if you try hard enough, you can actually breed larger peas.

Bernstein cautions that treating regression to the mean as an 'immutable dogma' is a dangerous thing, and warns, "never depend upon it to come into play without constantly questioning the relevance of the assumptions that support the procedure."

Now - on to market segmentation analyses. What are they?

As my original cartoon suggests, they are a means of grouping members of a population by common characteristics or behaviours. Such groups are generally referred to as typologies. These typologies are generally different markets. Who buys whitening toothpaste, what magazines do they read and to what form of brainwashing will they respond?

As managers of public good services, we are looking at how to optimise our delivery systems and better achieve the policies we are guided to advance.

Considering regression to the mean, we are looking at subdividing a population into a set of smaller distribution curves that we can better understand. We are creating a set of more finely defined means about which a sub-population regresses.

We use these typologies to gain an understanding of several things.

- First we want to describe our population. Who are they, what do they want, where do they want it and so on. This is very much like a demographic analysis, but with a market segmentation analysis we go further than referring to descriptives like age, income and ethnicity and usually look at behaviour patterns, desires and relationships. I'll call segmentation studies that only describe a population **Describers**.
- Second we want to quantify our typologies. There are many market segmentation analyses that only describe the population, and I'll go through a few of those shortly. For a market segmentation analysis to be really useful, you need to know what size each population typology is. I'll call studies that do this Quantifiers.
- Third we want to monitor change over time to allow trend analysis and to allow us to get ahead of the game. I'll call studies that complete analysis over time Monitors.

Describers, Quantifiers and Monitors – there's my very own segmentation analysis of market segmentation analyses. Each gives you a different type and depth of analysis. Each is useful in its own way, but only Monitors are really useful in trend analysis. I'll run through a few of these – not an exhaustive list – to give you an idea of what is available. I'm not going to analyse each one, but am aiming to show you what's out there.

First, a couple of Describers.

You might have come across the **Hillary Commission's recent research publication** *Targeting Teens*. I wasn't until I began writing this paper. The study was completed by BRC Marketing and was based on a series of interviews with teenagers in Auckland and Wellington and came up with four types of teenager:

Sporty kids

- Cool kids
- Nerdy kids
- Mainstream kids

And they analysed each group by interests, sports and physical activities, and motivations and inhibitors. The focus of the study was to use these descriptives to better understand what encouraged and discouraged teenagers from being active. It makes fascinating reading. Dr Sue Walker, who is up shortly, was, I understand, behind the study.

It doesn't tell us the size of each of the types of kids, which would be interesting.

Another Describer is found in the **Department of Conservation's** *Visitor Strategy*. This publication used a recreation opportunity spectrum analysis and some brainstorming to come up with seven types of outdoor recreationist:

- Short Stop Travellers
- Day Visitors
- Overnighters
- Backcountry Comfort Seekers
- Backcountry Adventurers
- Remoteness Seekers
- Thrill Seekers

A person can be more than one of these things.

DOC's ambition was to match these groups against the recreation opportunities they provide in the back and front country of New Zealand. Again, these groups weren't quantified – we don't know how many Backcountry Comfort Seekers there are – but we do know they exist and we have a fair idea of what they expect.

Describers are interesting and offer guidance, but they don't really allow you to justify anything. They are like the trend analysis I was advised against using in the environment court – they are too markety.

Now, a Quantifier

Quantifiers are more useful. They let us know how big a market group is.

Here's one on domestic tourism from the Department of Marketing at the University of Otago. It's called *New Zealand Holidays, a travel lifestyles study* (1997). Considering that Kiwis contribute about 60% of all tourism expenditure in NZ, it's a worthy study, and is based on a national mail survey of 1703 New Zealanders. It's the sort of thing you could quote in court.

The Segments	Main Travel Motivations
Outdoor Adventurers 13.0%	Adventure, enjoyment, new and challenging experiences, and wilderness or nature experiences.
Sports Devotees 20.7%	To watch or participate in sports and/or special events.
Fun Loving Holidaymakers 14.4%	Fun, entertainment, shopping, enjoyment, familiarity, safety, and to visit a place where people speak the same language.

Education Seekers 16.8% Learning, knowledge, sense of history, to

experience cultural differences, authentic experiences, and to experience nature.

Special Family Occasions 20.7% To visit friends and extended family for a

special occasion, and to visit the place

where family originated from.

Kiwi Family Holiday 14.4% Travel with immediate family, availability of

children's attractions, rest and relaxation,

to re-visit favourite places and to go

somewhere familiar.

You can see how the addition of a few numbers suddenly makes things a lot more meaningful.

Otago University is also the source of my example of a Monitor. New Zealand beyond 2000, A Consumer Lifestyles Study published this year by the Consumer Research Group at Otago is a huge piece of work, and it is certainly one I intend to learn more about. Surveys have been carried out in 1979, 1989, 1995/96 and most recently in 2000. The latter was based on a survey comprising more than 500 questions sent out to 10,000 New Zealanders with a 38% return rate.

In 1995/96 they came up with the following seven groups:

Success-Driven extroverts 16.4%
Educated liberals 9.7%
Active 'family values' people 15.5%
Pragmatic strugglers 14.7%
Social strivers 13.0%
Accepting mid-lifers 17.1%

Last year things changed a bit with the emergence of a more clearly defined hedonistic youth culture – the young pleasure seekers. You might recall this getting a bit of press coverage. The new groups are:

Pragmatic Strugglers 11.8% Politically conservative Negative outlook

Educated Liberals 10.3% Progressive and egalitarian

Enjoy variety and diversity

Success Driven Extroverts 3.2% Value free enterprise

Actively ambitious

Young Pleasure Seekers 13.5% Generation Xers

Living for today

Traditional Values 18.8% Family and community oriented

Conservative

Social Strivers 13.1 % Outer directed

Conformist

Observe rather than partake Accepting of status quo

These changes allowed the Consumer Research Group to conclude the following:

Political feelings

- New Zealanders are less positive about life in New Zealand
- Big business is perceived in a more positive light
- We are more receptive to 'foreign' influences and there are fewer issues about immigration
- There is less support for retaining the flag and the monarchy

Individual changes

- Increased dissatisfaction with life at the individual level
- A drop in popularity for the Kiwi do-it-yourself attitude and 'natural living and striving for better things'
- Work is less interesting and people describe themselves as less outgoing than previously

Family relationships

- Families spend less time together and are not as close knit as they once were
- People spend less time at home
- Time away from children and family appears to be imposed rather than desired
- More people report their families are less well off financially than in the previous year

Consumption issues

- Consumers are less likely to believe that retailers make excessive profits (in line with greater acceptance of 'big business')
- Prices are acknowledged as reasonable, but product quality has improved consistently
- Service quality has improved
- Pre-prepared foods and dining out with friends are more common

Much of that makes depressing reading. The bit I find critical is:

Time away from children and family appears to be imposed rather than desired

The nostalgic beast in me gets a little rattled by that sort of finding.

However, I have to agree with the authors of the Hillary Commission's publication *Sport and Active Leisure: The Future Marketing Environment* when they opine:

"We are fooling ourselves if we hang on recklessly to our parents' notions of community service and joint effort. This is not how other developed societies are now behaving and we have to accept that the decline in our society is probably an irreversible reality."

That's some foresight based on some forecasting. Problem is, the foresight warns us that we have a lot of work to do to enable communities to continue to function as cohesive units. My foresight suggests that we will continue to face increasingly

complex and difficult times. They are probably no more complex, in a relative way, than those faced by our ancestors over the past few thousand years. The problem is, we are growing more divorced from the skills of co-operation, communication and cohesion that were once taken for granted. Our industry is one of the few that understands that communities which play together, stay together.