

# Business Models for Statistics

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# Where I am Coming From

- Consulting since 1978
- Fully commercial since 1983
- Running a consulting company since 1988
  - Now the largest commercial group of consulting statisticians in Australia

# Questions

→ If statistics provides a generic set of tools that can be applied across many areas, then what is the role of application specific groups such as business and industrial statistics?

→ E.g. – survival analysis applied to customer take-up

# Questions

→ If this is a conference on business and industrial statistics, why are people from business and industry in a small minority?

# Questions

→ No-one disputes that engineering is important in business and industry, so why are there not conferences on engineering in business and industry?

# Twenty Five Years Ago

## → Applied statistics readily feasible

→ Confluence of

- Economical scientific computing
- General purpose statistical packages

→ Statistician did not spend too much time as a programmer

## → Commercial statistical consulting begins

→ In Australia, Siromath founded in 1981

→ Grew to have 35 staff, ~12 with PhDs

→ Aimed to apply statistics to business and industry

# How are Things Now?

## → Technical aspects even easier

→ Computer hardware removed most constraints

## → Business side still difficult

→ In Australia, Siromath collapsed in 1989

→ No similar size company has replaced it

# What Business Models are Appropriate?

- Most businesses have a product that they sell for a return
- Three aspects:
  - Products
  - Marketing
  - Returns
- How do these apply to statistics

# Product Development

## → What do statisticians do?

- Hard to describe this to a lay person
- No clear product

## → Several specialist ones owned by statisticians

- E.g. design of experiments

## → Many taken by others

- Surveys by market researchers
- Ore reserve estimation by geostatisticians

## → Software is the clearest statistical product

# Statistics is Generic

→ No technique applicable to just one area

→ Some mainly *used* in just one area

→ Product is the statistician

# Product Definition

## → Accreditation a key

- Accredited Statistician (AStat) in Australia
- Chartered Statistician (CStat) in UK

## → Both vague on what a statistician should know

- Contrast with engineering

# Marketing

→ Statisticians rarely experienced in this

→ SEP - Someone Else's Problem

→ Standard framework involves a  
“brand”

→ E.g. CPA, MCSE

- Coca Cola,

→ Provides a handle or pointer to what is being marketed

# Brand Definition

## → Bundle of perceptions

→ Name, purpose, value, reliability

## → Ideally positive links

## → Focus for advertising

## → Buyers affected by the brand

→ Pay more for it

→ Choose it over other products

→ Leads to *brand equity*

# Brand Strength

## → Brand requires consistency

→ Simple theme

## → Identification of brand with right products

→ What is called “statistics” should be limited to what we want

## → Identification of name with the brand

→ Usually want the brand name to be dominant

→ Want to avoid using names that confuse

- Does the title “biometrician” help?
- How is Clive Granger described?

# Providing Value

- Get paid for providing value
- Client measures value by the assistance it provides
  - Making decisions
  - Running more efficient process
- Loosely related to work involved
  - Only so far as someone else might do it

# Economic Pressure

## → Providing value at minimal cost

- Can only work when cost is less than value to client
- Difference is the potential profit

## → Pay the statistician as little as you can!

- Use the cheapest statistician available?
- Use the least qualified statistician?

## → If a PhD is not required, don't use it

- Recognise the role of the ordinary graduate

# Economic Solutions

## → Concentrate on high value work

→ This does *not* correlate highly with difficult work

## → Avoid selection by price

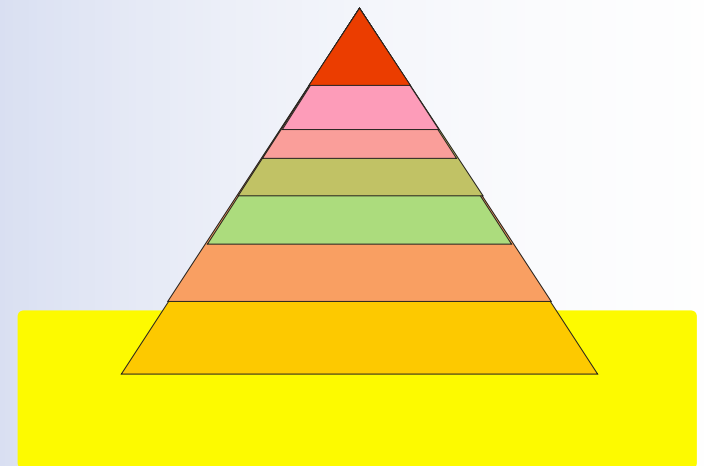
→ Differentiation from others

→ Brand is important

## → Professional structure

→ Levels of work require

- Levels of cost
- Grades of statistician
- Experience



# Thank you

→ Paper will be available on  
[www.daa.com.au](http://www.daa.com.au)