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THE EFFECT OF MAILING STRATEGIES AND USE OF INCENTIVES ON RESPONSE RATES TO MAILED SURVEYS

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The University of Adelaide

OBJECTIVE

To compare response rates to mailed surveys using different mailing intervals and contingent incentives, and different mailing types and prepaid incentives. Methods: A quasi-experimental design of three national random samples of dentists used a survey collected in 1997-98 (short mailing interval; no contingent incentive) to test the effect of mailing interval against a survey collected in 1993-94 (long mailing interval; no contingent incentive), and to test the effect of using an incentive against a survey collected in 1998-99 (short mailing interval; contingent incentive). The final mailing stage to existing non-respondents in the 1998-99 survey was randomised into: control (standard mailing), registered mail, prepaid incentive, and registered mail with prepaid incentive groups. Results: After the same number of mailings there was no difference ($\alpha = 0.05; \chi^2$) in response between surveys using short (60.3%) versus long (58.1%) mailing intervals, or between surveys with no incentive (60.3%) versus a contingent incentive (62.1%). However, response varied between experimental groups ($\chi^2; \ P=0.001$): control 7.3%, registered mail 18.0%, prepaid incentive 22.3% and registered mail with prepaid incentive 31.9%. Conclusions: Registered mailing and prepaid incentives enhanced the response compared to standard mailing. Implications: Registered mailing may provide a lower cost alternative to increasing response than prepaid incentives.

INTRODUCTION

Mail surveys have some advantages such as cost and ease of administration over other collection methods, but are perceived as having inferior response rates (Dillman, 1991). Low response rates are undesirable to the extent that they introduce bias and reduce statistical power (Deming, 1944). The ‘Total Design Method’ was developed to correct this weakness (Dillman, 1978; Salant and Dillman, 1994). While other collection methods such as computer assisted telephone interviews (CATI) are becoming more widespread in Australia (Slade, Brennan, and Spencer, 1995; Watson et al., 1995; Watson et al., 1996), there are circumstances such as collection of information using diaries or logs when the mailed approach may be preferred.

In circumstances where the nature of the data items collected favours the use of a mailed instrument the methods may need to be varied in order to optimise the response. Techniques for improving response rates have included primary approach letters or telephone calls, incentives, follow-up reminders, questionnaire design, and type of mailing (Dillman, 1991; Fiset, Milgrom, and Tarnai, 1994). There have been indications of increasing difficulty in achieving response rates among dental practitioners. Surveys in 1983-84 and 1988-89 achieved response rates of over 70%, but a similar survey
conducted in 1993-94 had a response of 58.1% at the same stage of mailing, and required two additional stages of mailing, with the final mailing stage incorporating a prepaid financial incentive and use of registered mail to finally achieve a comparable level of response (AIHW Dental Statistics and Research Unit, 1998). This is consistent with the evidence of a positive effect on response of providing prepaid monetary incentives (James and Bolstein, 1990; Yammarino, Skinner, and Childers, 1991), but it was not possible to separate this effect from the use of registered mail.

The aim of this study was to compare response rates between mailed surveys of dental practitioners using different mailing intervals and contingent incentives using a quasi-experimental design, and to compare the effect of using different mailing methods and prepaid incentives on response rates of dental practitioners using a randomised trial design. The methods used and results obtained from the quasi-experimental design and randomised trial design are presented separately.

METHODS

Quasi-experimental comparison of mailing intervals and contingent incentives

(a) Design

Three national surveys of random samples of dentists were conducted using different designs. These designs were: Survey A (collected in 1993-94; long mailing interval; no incentive), Survey B (collected in 1997-98; short mailing interval; no incentive) and Survey C (collected in 1998-99; short mailing interval; contingent incentive included). Survey B was used as a control to test the effect of mailing interval against Survey A, and to test the effect of using a contingent incentive against Survey C.

(b) Mailing strategy

All three surveys used a primary approach letter to introduce the survey, followed by the initial mailing of the survey instrument. In each survey the collection instrument was of a similar size and complexity, consisting of an 8-10 page questionnaire containing a log of services provided over a typical day. The initial mailing of the questionnaire in each survey included a letter of support from the President of the Australian Dental Association. Survey A then consisted of follow-up mailings to non-respondents, consisting of replacement questionnaires and cover letters. Surveys B and C differed slightly from Survey A by using a reminder card as the first follow-up mailing after the initial mailing of the survey instrument, then follow-up mailings with replacement questionnaires as for Survey A. Mailing intervals following the initial questionnaire consisted of a mean of 6 weeks for the long interval design and 4 weeks for the short interval design.

(c) Sampling

All three surveys were drawn at random from the dental registers of each State/Territory of Australia. Surveys A and C were part of a longitudinal study which was commenced in 1983 and surveyed at five-year intervals in 1988, 1993 (Survey A) and 1998 (Survey C). An initial sample of 10% of male dentists and 40% of female dentists was drawn. At each subsequent wave of the study all subjects who were previously included in the study were retained and a sample supplementation procedure was conducted to include a random sample based on the same sampling
rates of all dentists who were new to the registers since the previous wave of the study. Survey B was collected as a separate random sample from the longitudinal study, and was based on 13.5% of all registered dentists.

(d) Incentive

The incentive used in Survey C consisted of being entered into a prize draw after responding. An initial draw was held after the reminder card mailing for a wine prize (1st prize: 1 dozen bottles, 2nd prize: 6 bottles, 3rd prize: 2 bottles), and a final draw was held after the final stage of mailing for a dental products prize (1st prize: dental handpiece valued at $1,200, 2nd prize: $500 dental materials voucher).

RANDOMISED TRIAL OF MAILING TYPE AND PREPAID INCENTIVE

(a) Sample and approach

The randomised trial was conducted as an additional final follow-up stage of Survey C. Hence the approach utilised consisted of that described above, but the sample was non-respondents after the three rounds of follow-up mailings. The randomised trial became an additional final mailing stage.

(b) Design and randomisation

The fourth and final follow-up stage consisted of a randomised trial, with one group surveyed by standard mail, another group by registered mail, another group received an incentive cheque of $10, and another group had both registered mail and a $10 incentive cheque. The incentive was financed from consulting funds. A random start number was utilised and the State/Territory-specific alphabetical listing of sampled dentists was sequentially allocated into each of the four groups providing proportional allocation of dentists to groups and representation of groups within each State/Territory. A small number of questionnaires were returned as a result of prior follow-up following the allocation procedure, but prior to commencement of the randomised trial mailing, hence there was slight variation in the numbers across each group.

RESULTS

Quasi-experimental comparison of mailing intervals and contingent incentive

Table 1 presents the response by stage of survey for short (Survey B) versus long (Survey A) mailing intervals, and Table 2 presents the response for no incentive (Survey B) versus a contingent incentive (Survey C). The tables present the cumulative number of responses received up to the time of each mailing stage. After the same number of mailings there was no difference (α = 0.05; χ²) in response between surveys using short (60.3%) versus long (58.1%) mailing intervals, or between surveys using no incentive (60.3%) versus an incentive (62.1%).

Randomised trial of mailing type and prepaid incentive

Table 3 shows that of the 501 dentists surveyed 27 were excluded due to returned mail as a result of non-contactable addresses or information by phone that they were not in practice. Numbers excluded did not vary significantly by experimental group, although the P-value was close to significance. Numbers of responses varied by experimental group (χ²; P=0.001): control group 7.3%, registered mail group 18.0%, prepaid incentive group 22.3% and registered mail with prepaid incentive group
31.9%. This gradient in effect is reflected in the odds ratios which show that increased effect sizes across registered mail, incentive, and registered mail with incentive groups compared with the reference of standard mailing with no incentive.

Table 4 shows the results of a logistic regression model testing the main effects of registered mail and incentive, and the interaction of these effects. Significant effects were observed for the incentive (OR=3.64) and registered mail (OR=2.77), but the multiplicative interaction term was not significant.

DISCUSSION

Experience with national surveys among dentists across the period 1983 to 1998 indicates that willingness to respond to requests to participate in surveys may be waning (AIHW Dental Statistics and Research Unit, 1998). There are suggestions that surveys of professionals may require different approaches to those adopted for the general population (Sudman, 1985). In particular, professionals may demand more information than is usually provided in population surveys, and for less salient topics require substantial payments.

The mailed approach has some advantages over other collection methods (e.g., cost, ease of administration), but is perceived as having inferior response rates (Dillman, 1991), hence the ‘Total Design Method’ incorporating multiple follow-ups and use of different mailing types was proposed to ensure adequate response levels (Dillman, 1978; Salant and Dillman, 1994). Mail surveys may be the preferred approach to the collection of information using diaries or logs. However, surveys incorporating diaries or logs may suffer from greater subject burden, which may limit response rates (Armstrong, White, and Saracci, 1994).

A range of methods have been tried to compensate for response burden. Monetary incentives have been effective in increasing response rates (James and Bolstein, 1990; Yammarino, Skinner, and Childers, 1991). Comparisons of prepaid and contingent incentives have indicated that there was no impact for incentives which were contingent on return of the survey (Church, 1993). Phone prompts in advance of a survey mail-out have enhanced response rates for a general practitioner survey (Osborn, Ward, and Boyle, 1996), with non-medical staff being as effective as a medical practitioner in administering the prompts (Gupta, Ward, and D’Este, 1997). However, there was no difference between the use of exhaustive advance telephone prompts, including a non-monetary incentive with the questionnaire, an advance letter prompt, and a single attempt advance telephone prompt (Ward et al., 1998).

Mailing intervals and contingent incentives

The findings of this paper regarding mailing intervals and contingent incentives were based on a quasi-experimental design (Campbell and Stanley, 1966), the surveys were not conducted concurrently and there is no control for other factors which may have changed over the period of the three surveys. However, each survey was conducted on a random sample drawn from a comprehensive sampling frame, and the age distribution of respondents showed close agreement with the population of registered dentists (Szuster and Spencer, 1997). This approach may also have the advantage of greater statistical power associated with larger sample sizes compared to similar studies using randomised experimental groups. There was
a slight design difference between Surveys A and B in the quasi-experimental comparison of mailing intervals, in that one used a reminder card as the first follow-up and the other used a replacement questionnaire, but the response rates by stage of mailing showed little difference hence this seems unlikely to have been a source of influence.

Monetary incentives have been effective in increasing response rates (James and Bolstein, 1990; Yammarino, Skinner, and Childers, 1991), but may not be practical for many research projects which have limited budgets. Comparisons of prepaid and contingent incentives have indicated that there was no impact for incentives which were contingent on return of the survey (Church, 1993). A contingent non-monetary incentive was not effective in this study. This null result is unlikely to reflect a Type II error as the precision of the estimates was high, with relative standard errors for the total response rate ranging between 2.1% and 2.6%. A power analysis indicated that the sample sizes were sufficient to detect differences in response rates of ±6%. Hence the findings of this study support the view that contingent incentives do not boost response rates.

Phone prompts used in conjunction with a fourth follow-up mailing had little impact on response in a survey of dentists, but a fifth follow-up mailing which used registered mail and a small monetary incentive ($5) boosted the response (AIHW Dental Statistics and Research Unit, 1998). This may reflect the effect of providing prepaid monetary incentives (James and Bolstein, 1990; Yammarino, Skinner, and Childers, 1991), but as it was not possible to separate this effect from that of using registered mail a further trial was warranted.

Mailing type and prepaid incentives

Where further strategies are required to enhance response rates the use of registered mail and prepaid incentives are both effective. In this study there was a gradient in effect from standard mailing to registered mail, incentive cheques, and the combination of registered mail with an incentive cheque. As separate strategies registered mail and incentive cheques had similar effect sizes, both higher than standard mailing, but lower than the combined registered mail with an incentive cheque. The combination of registered mail with an incentive cheque had the greatest effect, which was slightly less than expected for an additive interaction, with no multiplicative interaction.

While effective in increasing response, prepaid incentives may be expensive. In such cases using registered mail at some stage in the mailing process may serve as a lower cost alternative to prepaid incentives. Cost per response should be considered when evaluating alternative collection strategies (Pirotta et al., 1999). In this study the total cost (and cost per response after removing the cost of those who returned cheques), ignoring printing costs which were the same for each group, varied from $81.90 ($9.10 per response) for the control group using standard mailing, $308.70 ($14.70 per response) for the registered mail group, $1,331.25 ($43.75 per response) for the prepaid incentive group, and $1,543.80 ($35.94 per response) for the registered mail with incentive group. While the total cost was highest for the registered mail with incentive group the cost per response was lower than for the incentive only group due to the difference in response between the two groups. The registered mail group had lower total costs and cost per response than either the incentive only and registered mail with incentive groups while still achieving a superior response to standard mailing,
indicating that this may be preferred as a low cost alternative to boosting response in the final mailing stage of a survey.

CONCLUSIONS

Varying mailing intervals and using a non-monetary incentive contingent on return of the survey did not improve the response rates of mailed surveys of dental practitioners. Using shorter mailing intervals may have some efficiency advantages in terms of attaining data more quickly and in being administratively convenient to schedule mailings at regular intervals, and using a reminder card stage may be cheaper than a replacement questionnaire follow-up stage (Pirotta et al., 1999). The use of a phone prompt strategy was effective in one mailed survey of dentists (Rikard-Bell and Ward, 2000), but other surveys have not detected a differential response boosting effect due to phone prompts (AIHW Dental Statistics and Research Unit, 1998; Ward et al., 1998). This highlights the need for replication of strategies to test their generality across different sites, times and subjects. In general, salient research problems in conjunction with well designed and tested survey instruments are central in ensuring an adequate response. However, where there are unavoidable issues with response burden, then further development is required in devising optimal strategies so as to maintain adequate response rates to ensure collection of accurate and unbiased information.

Other issues beyond the scope of the present paper should also be considered in addition to response rates, namely the quality of responses received and the extent to which boosting response rates has actually achieved the goal of averting response bias. For example, quality of response could be investigated by comparing levels of missing data between treatment groups, through test-retest designs, or when they exist, the use of other external data sources to validate the responses. External data sources may also be employed to examine response bias, but may be limited in their availability (Greenland, 1996).

The effect of using the alternative strategies in the final mailing stage in 1998-99 combined with the response from previous mailings stages resulted in an overall response of 71.2% for the study. Had the final mailing stage been performed using standard mailing it would have cost $325.65 giving an overall response to the survey of 66.2%, using only registered mail in the final stage would have cost $1,227.45 giving an overall response of 70.7%, using only the prepaid incentive would have cost $5,335.65 giving an overall response of 71.8%, while using only registered mail with prepaid incentive in the final stage would have cost $6,237.45 giving an overall response of 76.2%. Choice of alternatives would be influenced by resources available, and importance of maximising the response to a desired level.

ACKNOWLEDGEMENTS

The 1993-94 study was supported by RADGAC, the 1997-98 study was supported by ADRF and NHMRC, and the 1998-99 study was supported by NHMRC and Halas Dental Limited.

REFERENCES


### Table 1. Comparison of response by stage of survey: short versus long mailing intervals

<table>
<thead>
<tr>
<th></th>
<th>Cum. n</th>
<th>Cum. %</th>
<th>S.E.</th>
<th>R.S.E.</th>
<th></th>
<th>Cum. n</th>
<th>Cum. %</th>
<th>S.E.</th>
<th>R.S.E.</th>
<th>P (χ²)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short mailing interval</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Long mailing interval</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary approach</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Reminder card</td>
<td>217</td>
<td>19.4</td>
<td>1.2</td>
<td>6.1%</td>
<td></td>
</tr>
<tr>
<td>Questionnaire</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Follow-up 1</td>
<td>468</td>
<td>41.7</td>
<td>1.5</td>
<td>3.5%</td>
<td></td>
</tr>
<tr>
<td>Reminder card</td>
<td>578</td>
<td>51.6</td>
<td>1.5</td>
<td>2.9%</td>
<td>Follow-up 2</td>
<td>522</td>
<td>47.2</td>
<td>1.5</td>
<td>3.2%</td>
<td></td>
</tr>
<tr>
<td>Follow-up 2</td>
<td>638</td>
<td>56.9</td>
<td>1.5</td>
<td>2.6%</td>
<td>Follow-up 3</td>
<td>603</td>
<td>54.6</td>
<td>1.5</td>
<td>2.7%</td>
<td></td>
</tr>
<tr>
<td>Follow-up 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Follow-up 4</td>
<td>603</td>
<td>54.6</td>
<td>1.5</td>
<td>2.7%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>676</td>
<td>60.3</td>
<td>1.5</td>
<td>2.4%</td>
<td></td>
<td>642</td>
<td>58.1</td>
<td>1.5</td>
<td>2.6%</td>
<td></td>
</tr>
</tbody>
</table>

(a) = Short mailing interval: Study of Dental Services 1997-98 (mean mailing interval = 4 weeks)
(b) = Long mailing interval: Longitudinal Study of Dentists' Practice Activity 1993-94 (mean mailing interval = 6 weeks)

S.E. = Standard Error
R.S.E. = Relative Standard Error

### Table 2. Comparison of response by stage of survey: no incentive versus contingent incentive

<table>
<thead>
<tr>
<th></th>
<th>Cum. n</th>
<th>Cum. %</th>
<th>S.E.</th>
<th>R.S.E.</th>
<th></th>
<th>Cum. n</th>
<th>Cum. %</th>
<th>S.E.</th>
<th>R.S.E.</th>
<th>P (χ²)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No incentive</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Contingent Incentive</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary approach</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Reminder card</td>
<td>217</td>
<td>19.4</td>
<td>1.2</td>
<td>6.1%</td>
<td></td>
</tr>
<tr>
<td>Questionnaire</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Follow-up 1</td>
<td>468</td>
<td>41.7</td>
<td>1.5</td>
<td>3.5%</td>
<td></td>
</tr>
<tr>
<td>Reminder card</td>
<td>578</td>
<td>51.6</td>
<td>1.5</td>
<td>2.9%</td>
<td>Follow-up 2</td>
<td>727</td>
<td>53.9</td>
<td>1.4</td>
<td>2.5%</td>
<td></td>
</tr>
<tr>
<td>Follow-up 2</td>
<td>638</td>
<td>56.9</td>
<td>1.5</td>
<td>2.6%</td>
<td>Follow-up 3</td>
<td>781</td>
<td>57.9</td>
<td>1.3</td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td>Follow-up 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Follow-up 4</td>
<td>781</td>
<td>57.9</td>
<td>1.3</td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>676</td>
<td>60.3</td>
<td>1.5</td>
<td>2.4%</td>
<td></td>
<td>839</td>
<td>62.1</td>
<td>1.3</td>
<td>2.1%</td>
<td></td>
</tr>
</tbody>
</table>

(a) = No incentive: Study of Dental Services 1997-98 (no prize draw)
(b) = Contingent Incentive: Longitudinal Study of Dentists' Practice Activity 1998-99 (responses entered into prize draw)

S.E. = Standard Error
R.S.E. = Relative Standard Error
### Table 3.
Response to randomised trial by experimental group membership

<table>
<thead>
<tr>
<th>Group</th>
<th>Size of group</th>
<th>Exclusions from denominator</th>
<th></th>
<th></th>
<th>(b) Valid responses</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Returned mail</td>
<td>Returned response</td>
<td>Total</td>
<td>n</td>
<td>% (S.E.)</td>
<td>OR (95% CI)</td>
<td></td>
</tr>
<tr>
<td>1. Control (standard mailing)</td>
<td>126</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>9</td>
<td>7.3 (.03)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>2. Registered mail</td>
<td>126</td>
<td>8</td>
<td>1</td>
<td>9</td>
<td>21</td>
<td>18.0 (.04)</td>
<td>2.77 (1.21-6.33)</td>
<td></td>
</tr>
<tr>
<td>3. Incentive</td>
<td>125</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>27</td>
<td>22.3 (.04)</td>
<td>3.63 (1.63-8.12)</td>
<td></td>
</tr>
<tr>
<td>4. Registered mail &amp; incentive</td>
<td>124</td>
<td>11</td>
<td>0</td>
<td>11</td>
<td>36</td>
<td>31.9 (.04)</td>
<td>5.92 (2.70-12.99)</td>
<td></td>
</tr>
</tbody>
</table>

P-value
- (c) 0.067
- (c) 0.001
- (c) 0.001
- (d) 0.0001

Total 501 26 0 27 93 19.6 (.02)

(a) Not in practice
(b) Percentage of group minus the returned mail and phone response
(c) Heterogeneity $\chi^2$ test
(d) Logistic regression (R-square = 5.1%)
(e) $\chi^2$ test for linear trend

### Table 4.
Logistic regression model of response by prepaid incentive and mailing type

<table>
<thead>
<tr>
<th>Variable</th>
<th>Parameter estimate</th>
<th>S.E.</th>
<th>P-value</th>
<th>Odds ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered mail</td>
<td>1.0191</td>
<td>0.42</td>
<td>0.0157</td>
<td>2.77 (1.21-6.33)</td>
</tr>
<tr>
<td>Incentive cheque</td>
<td>1.2915</td>
<td>0.41</td>
<td>0.0016</td>
<td>3.64 (1.63-8.12)</td>
</tr>
<tr>
<td>Interaction</td>
<td>-0.5320</td>
<td>0.52</td>
<td>0.3027</td>
<td>0.59 (0.21-1.62)</td>
</tr>
</tbody>
</table>

R-square = 5.1%
THE IMPACT OF MENTIONING A SCALE MID-POINT IN ADMINISTERING A CUSTOMER SATISFACTION QUESTIONNAIRE VIA TELEPHONE

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Marketing Science Centre
University of South Australia

ABSTRACT

This study examined the effect of mentioning a scale mid-point compared to not mentioning it, while administering survey questions on customer satisfaction. The questions were asked during a telephone interview of Australian insurance consumers using an eleven point, zero to ten numerical scale. The study found that there were more "lower" scores (7 out of ten or lower) and fewer "higher" scores (over 7 out of 10) when a mid-point was mentioned. Based on this finding, there are two possible implications for market research providers. First, within any survey the use of mid-points should be consistent – they should be mentioned by all interviewers or not mentioned at all. Inconsistency in the use of scale mid-points may introduce additional unwanted variation into the data. The second implication is that if mid points are mentioned or used in one survey for a particular client, and not for a subsequent survey, the results for one survey could be different from the other.

BACKGROUND

Market research surveys often use questions that allow respondents to answer on some type of measurement scale, with the scale allowing responses between extremes such as "strongly disagree – strongly agree", "very poor – very good", and so on. A topic of interest to market researchers relates to the use of mid-points for such scales. Opinions on the usefulness of mid-points vary. Opponents of the use of mid-points argue that they can result in too many neutral responses, and scales that "force" respondents to allocate either a positive or negative response are more desirable. Proponents of the use of mid-points suggest that respondents can have neutral feelings or opinions about particular issues and mid-points provides for the expression of those neutral feelings (e.g. see Tull and Hawkins, 1993).

The inclusion of a scale mid-point may change response patterns to survey questions in several ways. Using a mid-point could reduce the proportion of positive and negative responses that might be obtained if it were omitted (assuming more respondents use the mid point as their response when it is mentioned). Alternatively, a mid point could result in more positive responses and fewer negative responses – or vice versa. The effect on positive or negative responses might depend on the type of question asked. For example, suppose one asked a question that most people would agree or strongly agree with, and hardly anyone would strongly disagree with, using a numerical scale. In that situation, what respondents might consider to be a "neutral" or "mid point" response might not be in the "centre" of the scale, for example 5 out of 10, it could perhaps be 7 out of 10. Therefore some respondents who might otherwise have responded with, say a 7 out of 10 would instead give a response of 5 out of 10 when a mid point is mentioned. A scale mid-point could also have different effects on the responses around the middle values of the
scale compared to the extreme points of the scale. Understanding how scale mid points affect response patterns could be very useful for market research organisations and their clients.

PREVIOUS RESEARCH

There have not been very many published studies on the effects of mid-point inclusion. Worcester & Burns (1975) compared responses to Likert scale questions and marks on a blank line from the same respondents, where the line marks were subsequently allocated numerical scores. The researchers concluded that use of a scale without a mid-point “pushes more respondents to the positive end of the scale” (p. 196), but this conclusion was based on the comparison between the Likert scales and the scores derived from the blank lines. Worcester & Burns (1975) did not report on any differences in the proportion of respondents that gave a particular response according to the presence or absence of a mid-point on the Likert scales.

Two other studies have examined how the inclusion of a mid point alters the proportion of positive or negative responses obtained. Spagna (1984) found that respondents allocated fewer positive responses and more negative responses when a mid-point was included in a scale. Garland (1991) reported quite different results - respondents allocated fewer positive responses and more negative responses when a mid-point was not included in a scale. So the available evidence on the effect of scale mid-points is very inconclusive.

It is also noteworthy that these three studies used either mail or face-to-face survey methods for data collection. A literature search revealed no studies which have addressed how the use of scale mid points might affect responses in telephone surveys. This is surprising, as telephone surveys have been the most prevalent market research survey method for some time (Aaker and Day, 1986). Furthermore, the use of scale mid-points is a topical issue for telephone surveying. Telephone surveys differ from those that use self-completion questionnaires or those filled out by an interviewer face-to-face. For self completion or face-to-face methods that use scales, the respondent can often see the scale, either on the questionnaire itself or on a “show card” which has the range of possible responses. In a telephone survey, the respondent cannot see the scale, and respondents have limited ability to recall response categories (Dillman, 1978). To overcome this limitation, researchers often use multiple-category numerical scales that simply ask the respondent to give a number as an answer, for example from between one to five, or zero to ten, and so on. The end-points of such scales can be anchored as “very good...very poor”; “totally agree ....totally disagree”, among others. Such “unstructured” scales (Holmes, 1974) that make minimal use of verbal tags are common in marketing research (eg. see Loken et al., 1987). However, researchers might wish to provide additional guidance for respondents, by including a mid-point, for example (adapted from Dillman, 1978 p.208):

“Could you tell me how satisfied you are with your new car? Please give me a number from zero to ten where zero indicates very dissatisfied, five is neither dissatisfied or satisfied, and ten indicates very satisfied”.

It could be very useful for both research providers and their clients to know more about the possible effect from mentioning mid points in this manner via telephone
surveys. For instance, if some research providers do typically use mid points when administering questions of this sort, their results might be different to those that do not. If a client changed providers (or a provider changed methods), they could see sudden shifts in results and might not know exactly why this occurred. However, as mentioned, there is a paucity of research on the subject.

An opportunity arose to gather evidence on the issue as part of a customer satisfaction survey. Customer satisfaction appeared to be an excellent vehicle to use for the study, as it is an issue that is considered to be extremely important research area in marketing (e.g. Churchill and Surprenant, 1982, Rust and Zahorik, 1993), and is also a frequent subject of commercial surveys in the author's experience. Therefore the results would be salient to many research clients and providers, not only in terms of scale mid points per se but also to customer satisfaction measurement.

METHOD

As part of a commercial market research survey on household insurance in Australia, two versions of a customer satisfaction questionnaire were created. One version included a question with a mid point, and one did not. The numerical scale that was used ranged from zero to ten points, a range that has been found to be particularly suited to telephone surveys (e.g. Brennan et al., 1995, Loken et al., 1987). The two versions of the questionnaire are shown as Appendix 1.

One group of respondents was administered the version of the questionnaire without the mid-point. They were first asked about how satisfied they were with their buildings insurance company, then were asked how satisfied they were with their car insurance company. The other group was also asked about their satisfaction with their buildings insurance company, then their car insurance company, but the questions for the second group included the mention of the scale mid-point, as shown in Appendix 1. The allocation of respondents to the two versions of the questionnaire was random.

The survey was administered to a random sample of 603 people in the general population of South Australia, in late 1999, by professional market research telephone interviewers. The sole criteria for inclusion in the survey was that the respondent had either a car or buildings insurance policy. A CATI (Computer Aided Telephone Interviewing) system was used, which makes administering different versions of a questionnaire to selected groups of people very easy. A proportion of the interviews were monitored by a supervisor to ensure the interviewers followed their instructions closely as part of normal quality control guidelines.

RESULTS & DISCUSSION

As the questions relating to buildings and car insurance were asked of the same respondents we examined how many respondents gave the same or a different response to the two insurance categories. The reason was that if most respondents gave the same response for both categories there would be little point in reporting the results for both categories separately. Table I shows that 40% of respondents gave a different response for their level of satisfaction when asked about car insurance, compared to their response for buildings insurance. Therefore it is appropriate to present the results for both buildings and car insurance separately.
Table I.
Same or different response for buildings / car insurance questions.

<table>
<thead>
<tr>
<th>Response</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gave same response to both questions</td>
<td>241</td>
<td>60</td>
</tr>
<tr>
<td>Gave different response to one of the two</td>
<td>163</td>
<td>40</td>
</tr>
<tr>
<td>questions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (does not include responses where</td>
<td>404</td>
<td>100</td>
</tr>
<tr>
<td>there was a missing value for one of the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>responses)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DISCUSSION

Tables II and III show the proportions of responses for each response category. There was one statistically significant difference at the p=0.10 level between the proportion of responses given for a question with a mid-point compared to those given for a question without a mid point, namely for building insurance. 22% of respondents used "5" as a response when it was mentioned by the interviewer, compared to 12% when it was not.

Table II:  
Results for Buildings Insurance

<table>
<thead>
<tr>
<th>Frequency Distribution</th>
<th>Buildings Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1) With Mid Point:</td>
</tr>
<tr>
<td></td>
<td>% of responses</td>
</tr>
<tr>
<td></td>
<td>(2) Without Mid</td>
</tr>
<tr>
<td></td>
<td>Point: % of</td>
</tr>
<tr>
<td></td>
<td>responses</td>
</tr>
<tr>
<td></td>
<td>Difference (1-2)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>0 (extremely dissatisfied)</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>22</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>10 (extremely satisfied)</td>
<td>24</td>
</tr>
<tr>
<td>Don't know</td>
<td>7</td>
</tr>
<tr>
<td>Mean Satisfaction Score</td>
<td>7.6</td>
</tr>
<tr>
<td>Total responses</td>
<td>229</td>
</tr>
</tbody>
</table>

* statistically significant difference at p<0.10.
Table III: Results for Car Insurance

<table>
<thead>
<tr>
<th>Frequency Distribution</th>
<th>With Mid Point: % of responses</th>
<th>Without Mid Point: % of responses</th>
<th>Difference (1-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 (extremely dissatisfied)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>-1</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
<td>10</td>
<td>+5</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>4</td>
<td>-1</td>
</tr>
<tr>
<td>7</td>
<td>15</td>
<td>11</td>
<td>+4</td>
</tr>
<tr>
<td>8</td>
<td>19</td>
<td>24</td>
<td>-5</td>
</tr>
<tr>
<td>9</td>
<td>13</td>
<td>19</td>
<td>-6</td>
</tr>
<tr>
<td>10 (extremely satisfied)</td>
<td>27</td>
<td>29</td>
<td>-2</td>
</tr>
<tr>
<td>Don't know</td>
<td>6</td>
<td>2</td>
<td>-4</td>
</tr>
<tr>
<td>Mean Satisfaction Score</td>
<td>7.9</td>
<td>8.2</td>
<td></td>
</tr>
<tr>
<td>Total responses</td>
<td>302</td>
<td>284</td>
<td></td>
</tr>
</tbody>
</table>

In order to further appraise whether the differences in responses for questions with a mid point compared to questions without a mid point were statistically significant, the scores were combined into two categories. The first category comprised all responses up to and including 7 out of 10, the second comprised all responses over 7 out of 10. The break point of 7 was used as it was closest to the mean average satisfaction score. For simplicity these categories are later referred to as denoting “lower” scores and “higher” scores respectively.

This aggregation enabled the data to be presented in a simple two-way contingency table, with statistical significance examined using the chi-square test. The results are shown in Table IV.

Table IV shows that the use of a scale mid point did affect the responses. For instance, in the buildings insurance category, when the mid-point was mentioned, the proportion of “lower” scores (up to 7 out of 10) was 43%. When the mid-point was not mentioned this proportion was 32%. The difference in proportions in buildings insurance was statistically significant at the 0.02 level. For car insurance, the proportion of “lower” scores was 37% when the mid point was mentioned compared to 27% when it was not. The difference in proportions for car insurance was statistically significant at the 0.01 level.

These results are consistent with previous research by Worcester & Burns (1975) and Spagna (1984). However, they are in contrast to Garland (1991). There is no apparent explanation for this. It may be that,
as Garland suggested, "the way in which people will respond to a balanced Likert-type scale is content specific" (p. 2). However, more research could help determine how the use or omission of a scale mid-point affects response patterns, in what way, and under what conditions.

Table IV:
Contingency table

<table>
<thead>
<tr>
<th></th>
<th>Buildings Insurance</th>
<th>Car Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Responses With Mid-point</td>
<td>% Responses No Mid-point</td>
</tr>
<tr>
<td>Score up to 7/10 (&quot;lower&quot;)</td>
<td>43%</td>
<td>32%</td>
</tr>
<tr>
<td>Score over 7/10 (&quot;higher&quot;)</td>
<td>58%</td>
<td>68%</td>
</tr>
<tr>
<td>Column Total</td>
<td>212</td>
<td>256</td>
</tr>
<tr>
<td>Column %</td>
<td>45%</td>
<td>55%</td>
</tr>
<tr>
<td>$\chi^2$ statistic</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>d.f.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>p value</td>
<td>0.02</td>
<td></td>
</tr>
</tbody>
</table>

CONCLUSION

This analysis is based on only a single set of data, so generalisations must be tentative. However, it suggests that administering a questionnaire via telephone (particularly a customer satisfaction questionnaire, but perhaps also other types of questionnaires) using numerical scales with a mid-point mentioned may produce more "low" scores and fewer "high" scores than if a mid point was not mentioned. It may also be reasonable to assume that this effect would be more likely for questions that typically generate a negatively skewed distribution of responses, that is, more responses toward the higher end of the scale. The reason is that mentioning a mid-point will probably increase the proportion of respondents who will use it – and therefore reduce the proportion of responses above the mid point.
Whether the findings presented here generalise to other types of question, or to different circumstances, is a question for future research. However, if it is indeed the case that the mention or not of a scale mid point influences response patterns, there are two implications for market research providers. First, within any survey the use of mid-points should be consistent — they should be mentioned by all interviewers or not mentioned at all. Otherwise, additional random variance is introduced into the data. Second, if mid points are mentioned or used in one survey for a particular client, and not for a subsequent survey, this might explain unexpected variation in scores or response patterns.

REFERENCES


Appendix 1:

Questions

Note: respondents were asked several other questions about their insurance needs and which company they were insured with before these questions were asked. The questions for car insurance were identical to the ones shown here for buildings insurance except for the substitution of the words “comprehensive car” for “buildings”. If the respondent had previously indicated they owned more than one residence, the question was prefaced with the words “thinking now about your main residence...”. If the respondent had previously indicated they owned more than one car, the question was prefaced with the words “thinking about your main car ...”

Question version with Mid point

“How satisfied are you with your current buildings insurance company? Can you give me a score from zero to ten, where zero is extremely dissatisfied and ten is extremely satisfied, and five is neither satisfied or dissatisfied”.

Question version without Mid point.

“How satisfied are you with your current buildings insurance company? Can you give me a score from zero to ten where zero is extremely dissatisfied and ten is extremely satisfied”. 
DEDUCTIVE SEGMENTATION

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University of Technology, Sydney

The research was supported by an Australian Postgraduate Award, the Market Research Society of Australia's Postgraduate Scholarship, and the Dean's Postgraduate Scholarship provided by the Faculty of Commerce and Economics at the University of New South Wales.

ABSTRACT

Market researchers commonly use statistical algorithms to identify market segments. This paper argues that these statistical algorithms are often not appropriate. While market researchers generally like to "let the data do the talking", a small number of consultants and managers have long employed a more analytic approach, where markets are segmented by deductively assessing how known differences amongst customers should be taken into account when developing marketing strategy.

Deductive segmentation

In one form or another, all organisations practice market segmentation, from the corner store proprietor who broadens her smile when a regular customer arrives through to the telcos and their enthusiastic data miners. Market researchers have long recognised the importance of market segmentation, often providing clients market segmentation studies and market segmentation components as a part of other studies.

Despite its widespread application and popularity amongst marketers, market segmentation as an intentional strategy has a somewhat poor track record. Only 52% of senior managers of large international organisations are even aware that they segment their customers, and these firms are more satisfied with their mission and vision statements than their segmentations (Rigby 2000). The case of one US healthcare organisation that commissioned 18 segmentation studies over a five-year period without implementing any of them (Weinstein 1993) would seem to be the rule, rather than the exception. At the academic front, there are substantial concerns about the technical validity of much of the state-of-the-art segmentation research (Hoek et al. 1996; Louviere and Swait 1996).

While it would be easy to fall back on the consultant's legal defence - they did not do exactly as I advised - it seems that the relatively poor track record of segmentation is largely a product of the quality of segmentation research. A review of the marketing literature of the last two decades fails to turn up a single example of a segmentation study following academic "best practice" that has unequivocally successfully shaped an organisation's strategy. Arguably the most influential segmentation paper of the past two decades is that of Grover and Srinivasan (1987), whose research discovered the existence of a segment of coffee drinkers who prefer decaffeinated coffee - while to an academic it is reassuring when research confirms the

1 The only case study of a demonstrably successful segmentation process is that of Gensch et al. (1990), which details a project undertaken in the 1970s employing a methodology that has little to do with modern segmentation methodology.

2 Grover and Srinivasan's research also discovered competitive relationships between brands - differences that are easily obtained from an eyeballing of the switching matrix.
obvious, to a practitioner it is a waste of money.

Segmentation is not an area where the commercial researcher has fared better than the academic. A client who briefs multiple research agencies will often get dramatically different proposed methodologies, reflecting the paucity of our understanding of segmentation — imagine the consternation that would be caused if doctors' proposed completely different treatments for identical symptoms. Browsing through the research libraries of large organisations tells a similar story — shelves are full of research studies that purported to identify segments, but never led to marketing strategy. Perhaps the most telling criticism is that market research firms virtually never use statistical segmentation methods, such as cluster analysis and latent class analysis, to segment their own customers.

The next section reviews what goes wrong with conventional segmentation research, after which a proposed resolution, deductive segmentation, is presented.

Why is so much segmentation research "bad"?

Two errors seem to underlie the majority of commercial and academic segmentation research: a focus on the needs of consumers without due consideration of the needs of the organisation and the application of inappropriate statistical techniques.

Consumer focus, not company focus

The clarion call of marketing has always been to hear the voice of the consumer. Being charged with the responsibility of understanding the consumer, market researchers become central to any firm pursuing the marketing concept. We ably meet this responsibility in numerous ways, from translating consumers wants and needs into new product designs through to helping determine the best spin to put on product recalls. It is thus little surprise that market segmentation is commonly interpreted as meaning understanding how consumers’ voices differ, with particular attention to how consumers differ in their “needs”.

A quick look at the shelves of any supermarket, or half-an-hour watching TV, provides strong support for the importance of recognising that there are differences in the ways choose between products. Some consumers prefer diet products, some consumers are prepared to pay a premium for convenience, and others can afford luxury. But does this mean that this is the only way — or even the best way — of understanding the segmentation problem? Is the relentless search for product innovation the inevitable consequence of recognising that not all consumers are the same? The crippling costs of new product failures certainly make this less than desirable.

The great problem with most needs-based segmentations is that they completely ignore the role of the brand (Rossiter 1987). A needs-based segmentation of the carbonated soft drink market may find that there are consumers who like diet drinks, energy drinks, cola drink and fruit flavoured drinks. While useful if trying to understand the competitive threat that V might have to Coca-Cola, it won’t shed any light on marketing’s most famous competitive battle: Coke versus Pepsi. Surely a useful segmentation would shed light on this? The only needs-based segmentations that commonly shed light on such competitive battles are the ones where the analyst has been told what segments to find – a practice verging on fraud.

The problem with all needs-based segmentations is that needs drive choice of
product category. While the market leader may be interested in driving category volume, most marketers are faced with the challenge of winning share from competitors, which instead requires a focus on brand attitude, awareness and the like (Rossiter 1987; Rossiter and Percy 1997). It can be useful to think of brand-based segmentation in terms of choice barriers. It is extremely rare to find markets where market share is even vaguely related to a utilitarian evaluation of product value. This is the lesson that we learn from the Pepsi Challenge, New Coke and the “cola wars” of the 1980s. Brand-based marketing strategy often has more to do with understanding what stops consumers from purchasing the product that best meets their needs – such as awareness and distribution – than understanding the actual needs of consumers, particularly in the many markets with product parity. As such, an understanding of how consumers differ in their choice barriers – from practical difficulties in switching bank accounts through to the fears and insecurities that keep consumers loyal to branded goods – should be central to any attempt to segment a market.

Marketers have traditionally focused on market share as the key to profit, with the resulting focus on competitive strategy. However, many of the most successful organisations are those that recognise that segmentation is not just about satisfying consumers, it is also about satisfying the firm. Financial services markets were the first to explicitly recognise this, with the advent of customer databases revealing that the majority of their customers were getting something for nothing – while consumer groups have decried the end of free bank accounts, shareholders have reaped the rewards as the banks have increased their profitability in a highly competitive market – something that the traditional mercantilist view of marketing does not recognise as possible. Inherent in many of the ecommerce strategies that dominate the financial press is this same notion of segmentation – a focus on making low and unprofitable consumers more profitable, regardless of what they may or may not want.

Wrong techniques, wrong assumptions

Amongst more sophisticated quantitative researchers, cluster analysis, and more recently latent class analysis, have become synonymous with market segmentation (e.g., Wedel and Kamakura 1997). The origin of such techniques is in numerical taxonomy, with its focus on identifying families of plants, animals and the like (Everitt 1993). When applied to understanding markets, the fundamental assumption of these techniques is that there are a small number of different types of consumers. While the existence of a small number of different types of consumers is undoubtedly of interest to most marketers, there are no a priori reasons to expect them to exist in most markets. Even if they did exist, they would be reasonably easy to identify and all firms would know about them, thus removing any potential competitive advantage (e.g., recognition that consumers differ in terms of their diet-consciousness). Furthermore, the only studies to explicitly test for the existence of a small number of different types of consumers have found no evidence in support of their existence (Allenby et al. 1998; Bock 2000). The implication of this is not that segmentation is inappropriate – although in some instances it may be – but that there are many different ways of cutting the market up into segments.

When markets do not contain a small number of different types of consumers, cluster analysis and latent class algorithms
will 'create' segments, with the segments representing one of many different ways of carving up the data. A useful analogy for understanding this is to think of consumers differing in the way that colours in the colour spectrum vary. There are numerous different ways of collapsing the colour spectrum. The list of colours available on your PC differs from the list available in the paint shop. While a short list of the colours to an English speaker will include the colour "brown", a similar list amongst the chestnut loving French will contain "marron". Just as the relevant taxonomy of colours depends upon what the list is to be used for, the appropriate way of carving a market into segments depends upon the strategic context, and cannot be inferred the data.

Numerous questions have to be answered before a segmentation can be implemented. Does the firm have the technology required? Can the segmentation strategy be accurately communicated to those responsible for implementation? Will consumers self-select segment membership – that is, is “build it and they will come” the true segmentation strategy? – or does the firm need to be able to determine the segment membership of each customer in its databases? Do the differences between segments relate to differences between how a firm should market to its consumers or differences in the way that consumers answer surveys?

As these implementation issues are not taken into account by the “state-of-the-art” market segmentation techniques, the implication is that the segments that are created may not be the best way of segmenting a market, or even useful.

Deductive segmentation

While market researchers generally like to “let the data do the talking”, a small number of consultants and managers have long employed a more analytic approach, where markets are segmented by deductively assessing how known differences amongst customers should be taken into account in marketing strategy. The most visible example of this is profitability segmentation. While the basic idea of profitability segmentation has been long recognised (e.g., Twedt 1964), often being referred to as the “80:20 rule” or “volumetric segmentation” in recognition of the strong link between customers’ consumption levels and value in many markets, it has undergone a renaissance in recent years with modern database technology greatly improving our ability to measure and access the segments (see Peppers and Rogers 1997; Peppers and Rogers 1996; Storbacka 1997). This results in segmentations being developed that offer more in the way of differential strategy development than, say, demographics or psychographics (Pearson and Gessner 1999). Furthermore, by focusing on “hard numbers”, rather than “soft” marketing concepts such as brand attitude, it enjoys strengths in communicability and technical validity.

Profitability segmentations are often augmented through distinguishing between the profit that the consumer is providing the company and the profitability they are providing the industry. Figure 1 shows a segmentation model commonly applied by management consultants – there are numerous variants with more or less granularity and slightly different axes.3 The power of Figure 1 is that from the recognition that customers differ in their profitability and customers may deal with multiple firms, we can develop segments

3 I was introduced to this model by Greg Taylor of Nelson Taylor Fox Pty Ltd, Australia. It seems to have been developed independently by a number of consulting firms.
with unquestionably appropriate marketing strategies.

![Figure 1](image)

**Generic profit opportunity matrix**

**Firm’s share-of-customer**

<table>
<thead>
<tr>
<th>Customer profitability to industry</th>
<th>Firm’s share-of-customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Customer acquisition strategies</td>
</tr>
<tr>
<td>Low</td>
<td>Cross-selling strategies</td>
</tr>
<tr>
<td>Low</td>
<td>Customer retention strategies</td>
</tr>
<tr>
<td>High</td>
<td>Avoid</td>
</tr>
<tr>
<td>Low</td>
<td>Process re-engineering &amp; Ignore</td>
</tr>
<tr>
<td>Low</td>
<td>Process re-engineering &amp; De-market</td>
</tr>
</tbody>
</table>

While the generic profit opportunity matrix is arguably the most influential marketing framework of the 1990s – who isn’t aware that banks and airlines prioritise their customers? – it does not figure in academic segmentation research (e.g. Wedel and Kamakura 2000). While at first glance profit opportunity may appear to be a tool for the database miners, rather than the market researchers, even the few firms with good quality customer databases can only measure the profit that their customers provide to them; only market research can provide the all-important share-of-customer data.

The focus on the hard numbers of profitability appears to many marketers to have more in common with accounting than marketing. However, the same type of logic is equally applicable to traditional marketing data. Consider the **basic brand vulnerability matrix** (Figure 2), constructed around the premise that “Loyal customers may be faithful for different reasons, and similarly lack of loyalty can be attributed to a variety of reasons” (Wind 1977, p. 313). Understanding the proportion of customers in the different segments of the matrix leads to obvious strategies. For example, there is little point in targeting brand building advertising at consumers with positive brand attitude but little brand usage, instead the focus should be on reducing the costs of switching, as mortgage originators and new telcos recognise. Similarly, an organisation with many customers with a negative brand attitude and high usage needs to do everything possible to create barriers to switching and to build brand attitude, as the banks and older telcos have shown. The matrix is just as applicable in grocery markets, where it is not uncommon to observe that premium brands have more
consumers in the bottom right corner of the matrix than store and discount brands.

Figure 2
The basic brand vulnerability matrix

\[ \text{Brand attitude} \]
\[
\begin{array}{ccc}
\text{Never} & \text{Occasionally} & \text{Regularly} \\
\text{Unlikely target} & \text{Customers who are vulnerable to competitors} & \text{Loyal} \\
\end{array}
\]

While the generic profit opportunity matrix and the basic brand vulnerability matrix are simple and powerful tools for segmenting markets, they may exclude some types of heterogeneity that should be taken into account when forming segments. Rossiter (1987) has suggested that prospects’ current behaviour, and awareness of and attitudes towards current and potential products, provides the most direct way of assessing the response potential of different groups in the market, and that in practice this will lead to about 12 segments (see also Rossiter and Percy 1997).

Winter (1984) has presented what he refers to as a “tactical” approach to segmentation using “segmentation trees”. The basic idea is that you create a list of all of the relevant ways that consumer differ. Winter argues that while the number of segments created may be large, this is not a problem. Some of the segments can be

\[ ^4 \text{I am indebted to John Wegryzn for pointing this out to me; he has observed this in a variety of product categories. He has also noted that amongst consumers with positive brand attitudes there is a correlation between usage and attitude – consumers with extremely positive brand attitudes tend to be behaviourally loyal.} \]
"written off" due to being too small, while others may be able to be addressed with the same marketing mix. This can be determined deductively or algorithmically (Winter 1979; Winter 1989).

Figure 3
"Segmentation tree" of the lawn fertiliser market

Consider Winter’s segmentation of the home lawn fertiliser market shown in Figure 3. Segment 1 needs relatively little effort, segment 2 can be ignored, segments 3 to 5 can be best addressed through a push campaign aimed at getting good shelf presence, segments 6 to 9 can be addressed through traditional marketing pull campaigns, segments 10 to 14 require major education, while segments 15 and 16 can also be ignored. Which of these segments are targeted, and how, will ultimately come down to the strengths and weaknesses of the firm. For example, a small brand with little retailer muscle will probably want to concentrate on segments 6 to 9, while a market leader may be interested in developing the market through concentrating on segments 10 to 14.

A general approach to forming segmentation trees

The following steps can be applied to form a segmentation tree:

Step 1: Create a complete list of variables. Figure 4 summarises the key questions that should be asked in generating variables for a segmentation tree.
• Do consumers differ in their profitability? Measures of the profit that consumers provide, be they actual estimates of profitability from databases, or proxies for profitability, such as frequency and volume of purchasing, can make excellent segmentation variables.

• Do consumers differ in their purchasing power? Often the profit that a firm makes from a consumer is determined by the consumer's negotiating power. Those of us who attended the Olympics paid high prices for the food and drinks because there were no competitors. Qantas and Ansett only dropped prices in the markets where Impulse was competing for exactly the same reason. Similarly, many companies offer discounts to their shareholders, and in Japan, keiretsu membership drives much of industrial buying. Any differences in purchasing power are potential ways of segmenting a market.

• Do consumers choose the product that best meets their needs? As discussed previously, in most markets the answer to this is no. Recognising the various factors that prevent consumers from buying the “best” product can create useful segmentations.

• Are consumers influenced by the needs and behaviour of others? Consumers copying other consumers drive fashion and toy crazes. IT marketers identify opinion leaders and give them free or reduced price products so as to drive the behaviour of others, a practice followed by marketers who recognise the importance of the “celebrity” segment.
People who give to charity and take out life insurance place greater importance on the needs of others.

- Do consumers differ in their needs? As discussed previously, much of segmentation research traditionally focuses on this.

Often some segmentation variables will be relevant to multiple of these questions; for example, loyalty may be a function of heterogeneity in product benefit preferences, consumer interactions and choice barriers and may lead to heterogeneity in purchasing power and profitability.

Winter suggests the following rules can be used in generating a list of segmentation variables (Winter 1984):

- Good variables will often relate to the type of marketing activities that need to be performed and the degree of marketing effort required.

- It is often useful to distinguish between the product use and brand use decisions. Amongst non-users, it can be useful to distinguish between those with potential and those without potential (e.g., people with dogs who don’t use a flea shampoo have potential). Barriers to use, such as awareness and attitudes can be used to further segment potential users.

- When segmenting markets for new products, useful variables include awareness, knowledge and trial.

- It can be useful to distinguish between buyers who choose brands and buyers who choose the distribution outlet.

Step 2: Rank the variables according to their supply-side implications. In general, supply-side variables need to be higher in the tree as while firms can decide not to market to some customers solely using supply-side criteria without any consideration of their needs, the converse does not hold. For example, a bank can decide to avoid low value customers solely because of their low profit contribution (supply-side), whereas the knowledge that a consumer has a preference for different types of electronic transaction types (demand-side) is only relevant if the consumer is a customer or is likely to be sought as a customer (supply-side).

Step 3: Form the tree by starting with the variable at the top of the list and working down the list. Look at each branch of the “tree” and determine whether the next variable on the list should be used to further segment the consumers on this branch. The criteria for selecting a branch should be that the variable accounts for relevant differences between consumers not already captured by the variables further “up” the tree. This process continues until all of the variables have either been incorporated into the tree or discarded.

Step 4: “Re-sculpt” the tree. When re-arranging the variables in the tree it is useful to remember that:

- Often there will be logical relationships between variables that dictate that their position in the tree should be changed. For example, it is generally desirable to have awareness above brand usage. The review of the deductive segmentation approaches above provides examples of logical links between variables.

- Some variables will need to be omitted due to operational difficulties. For example, in an ideal world a bank would take into account customers personalities when dealing with them – as this is
impossible to operationalise (Kassarjian and Robertson 1981), personality factors should be excluded from the tree.

- Some segmentation variables that are initially excluded from the tree may need to replace those already in the tree due to advantages in implementation (e.g. they may be captured on an organisation’s database or survey).

The segmentation tree that is created should become what Dickson (1993, p.84) describes as a firm’s “mental model” of a market, which will lead to competitive advantage. The marketing literature has recommended the use of different segmentation schemes for different marketing decisions (Day 1990; Lilien and Rangaswamy 1998; Wind 1978). The same segmentation tree can be used for different decisions, by simply collapsing the segments in different ways, or, different trees can be created for different problems.

By way of illustration, Table 1 presents a list of segmentation variables relevant to the financial services industry. The large number of variables, which are only a subset of those possible in the financial services industry, means that a single tree showing all of the relevant heterogeneity is intractable. However, the table of segmentation variables can be considered a map of heterogeneity in itself, with problem-specific trees being created from the variables listed.

<table>
<thead>
<tr>
<th>Generic type of heterogeneity</th>
<th>Segmentation variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability</td>
<td>Current profit to industry, expected future profit to industry, firm’s share of current profitability “share of wallet”</td>
</tr>
<tr>
<td>Purchase power</td>
<td>Number of competing institutions (e.g., less competition in rural areas)</td>
</tr>
<tr>
<td>Choice barriers</td>
<td>Awareness; relationship status (e.g., main financial institution, limited relationship, no relationship); attitude (including satisfaction); attitude to technology; Internet access</td>
</tr>
<tr>
<td>Customer interaction</td>
<td>Joint accounts; household profitability</td>
</tr>
<tr>
<td>Product features</td>
<td>Deposit versus loans; distribution channel preferences (Internet, ATM, etc.)</td>
</tr>
</tbody>
</table>

Figure 5 shows a tree developed for a financial services organisation. Dashed lines are used to indicate how this tree can itself be collapsed given its purpose. For example, when considering the problems of which customers to target and how much resources should be allocated to the different customer groups, an eight-segment tree can be used. Potential strategies for each of the segments are described in the table below the tree. When considering product design issues, this segmentation can be expanded from eight to twelve segments by taking into account whether the customer is predominantly depositing or borrowing.
Figure 5

Financial services customer acquisition and retention segmentation

This is an example of the type of segmentations that can be developed deductively. There is an obvious logic to the choice of segmentation variables in the segmentation scheme; similar schemes are increasingly being employed in financial services. Seven different segmentation variables – current profitability to industry, future profitability to the industry, current customer status, the firm’s share of each customer’s profit (i.e., “share-of-wallet”), the likelihood of the customer switching to the firm or increasing their share of wallet, whether they are predominantly depositing or borrowing money and the benefits sought – are used to create 11 segments. The overall logic of this segmentation scheme bears little relationship to Wendell Smith’s (1956, p. 268) conceptualisation of segmentation as a demand-side strategy of adjusting “product and marketing effort to consumer or user requirements” and has much in common with database marketers’ concerns for customer value and share of customer (e.g. Peppers and Rogers 1996).

While a retail bank, for example, could segment their market using the conjoint-based benefit segmentation procedures described in the marketing literature, it would be at a serious competitive disadvantage by doing so, potentially...
acquiring a large number of highly satisfied unprofitable customers. The economics of banking — where around five-to-ten percent of the customers can account for ninety percent or more of industry profitability — makes it essential for banks' segmentation strategies to primarily focus on customer profitability rather than customer needs.

CONCLUSION

For many years market segmentation has been the providence of the statistics boffin. This paper has argued that more actionable segmentations can be created by explicitly considering the characteristics of the market and the firm, forming segments in a deductive manner. For market researchers, this requires a re-appraisal of our role. We cannot simply view our job as being to communicate the needs of the consumer to our clients. We also need to understand what our clients needs from the consumers, and what they are capable of providing.

REFERENCES


DEVELOPING A TWO-WAY UNDERSTANDING BETWEEN UNIVERSITIES AND THE MARKET RESEARCH INDUSTRY

Jill Sweeney
Faculty of Economics and Commerce, University of Western Australia,

INTRODUCTION

The market research industry has been described as an ageing profession, with few promising newcomers entering the industry (Fellman, 2000). The USA has suggested that this is due to downsizing and the cutting of market research departments following the recession of the late '80s and early '90s. This has led to claims that the industry is in a questionable state or having an "identity crisis" with newcomers stumbling across the profession by accident rather than as a planned career path (Gibson, 2000; Fellman, 2000; Mitten, 2000).

A related issue is the quality of the newcomers (i.e. younger staff joining the industry) whose skills and training are critical to the future of the profession. Focussing on new graduates moving into the industry, we need to ask how valuable university training is in developing the graduate. Is there a discrepancy between what universities produce and what industry requires? We can ask this question at a generic level as well as at the level of our market research industry. Let us first look at this question from a broader perspective.

The gap between industry and university values has been discussed worldwide, for example in the context of IT (Whaley 1998), the business world (Business Officer, 1997), marketing (Marketing, 1998) and of most interest to this audience, marketing research (Gibson, 2000). Specifically, the work-relevance of graduates skills have been questioned (Seagraves et al, 1996). The OECD in particular have recently evaluated the skills that young adults need at the end of their education. Four critical domains were examined: problem solving and critical thinking; communication skills; political, economic and social values; and selfperception and self-confidence (OECD, 1997).

The need for collaboration between universities and industry is clear (Business Officer, 1997; Marketing, 1998; Gibson, 2000). The British Government recently announced a 22 million pound boost for 50 universities and colleges to promote links between higher education, business and the community. Projects included in the HEROBC (Higher Education Reach Out to Business and the Community) Fund included giving companies easier access to university expertise and resources and helping university staff and students understand the needs of business. Many other examples abound in specific industries. For example in the USA the retail industry is improving its links with colleges and universities to ensure longer-term availability of technologically trained graduates (Schulz, 1998).

Returning to our own market research industry which often employs recent university graduates, let us examine the issues of the appropriateness of university training for industry, the needs of graduates and the collaboration between the industry and universities. We can ask specific question such as: To what extent does their university education suit the needs of the employer and the graduate themselves? In reverse, how can the curriculum be enhanced...
by contact with the “real world” market research industry?

Currently industry and universities operate relatively independently. This research focuses on how improvements can be made by both the market research industry as well as academia (e.g. in terms of improving the content and emphasis of a market research unit to suit needs of industry) to achieve a better outcome for both parties.

Essentially, the issue is how to develop two-way communication that would help students understand marketing research in practice, which would also promote the industry. Clearly this benefits employers of market researchers and market research lecturers as well as students.

The concept of the research study followed the initiative of the Victorian Division of the MRSA, who initiated an ‘academia’ subcommittee of the state committee to facilitate liaison between academia and the market research industry. The WA division believed that while tertiary institutions were not widely removed from the market research industry, that a greater understanding could be developed between the two parties.

This work follows the preliminary focus group study among young Australian Market Researchers (Mitten, 2000) which found that young researchers:

- Entered the industry by “accident”;
- Were unlikely to stay in the industry, market research being seen as a stepping stone to another career;
- Believed that the industry paid poorly;
- Felt that the industry was viewed as having a low status the wider community;
- Desired a wider training after 3+ years in industry.

It should be noted that the present study research focusses on the prime undergraduate market research unit, most typically offered in the third (last) year of study. However, research itself is taught across several disciplines (e.g. psychology, social sciences, education etc.) and also at different levels (e.g. third year, Honours or Masters levels).

METHOD

Links between tertiary institutions and industry was considered important to four key groups:

1. Industry suppliers (agencies) who may employ graduates from university
2. Industry buyers who may also employ such graduates
3. Recent graduates entering the industry
4. Academic staff involved in the teaching of market research

As a consequence, four focus groups were conducted in Western Australia, with each of the above groups. Focus group sessions took place between November 1998 and November 1999. Due to the focus on the undergraduate teaching of market research, as discussed above, “recent graduates” referred to those who had recently left university after an undergraduate degree and entered industry.

1 Between four and six people attended each group. All major buyers, suppliers and tertiary institutions attended the sessions. The small number reflects the small size of the industry in WA.
It should be noted that the participants (suppliers, buyers, graduates and academics) were all from Western Australia, hence are not claimed to be representative of the views of all such groups in other states.

FINDINGS

What is your involvement with employing new graduates or working with new graduates?

Suppliers:
All respondents had previous experience of employing commerce graduates fresh from university, although one no longer did so believing that more appropriate skills were found in students from other disciplines, such as psychology or in people with previous work experience.

Buyers:
Most buyers employed a very small number of market researchers, typically 1-2. Few were employed direct from university, most had a few years experience in some aspect of business such as consulting, or even running their own business. As in the case of suppliers, graduates from a variety of disciplines such as commerce, other business disciplines or psychology were frequently employed.

"We're not too fussed about where they come from, we're more interested in the type of individual and the way they think"

What are the key generic skills that you consider such graduates should have on entering market research industry?

Suppliers:
By far the most critical generic skills sought from a graduate were what can be termed innate skills, such as being genuine, honest, trustworthy, confident about themselves and having a certain presence. It was felt that these skills cannot be taught. Specific mentions were the need for

- Responsibility and initiative
- Intelligence and the ability to apply it
- Written and oral communication skills
- Having a presence – being able to handle themselves at client meetings
- Lateral thinking
- Managing their time and priorities, being organised
- The ability to grasp the ‘big picture’ of a job. A broad knowledge of how, when a survey is needed and when it is not
- The ability to look at a lot of data, analyse it and then write a story about it

Many of these points were considered to be inter-related. Skills such as presentation skills were considered important and were thought to flow as a consequence of having confidence. However, it was agreed that confidence comes with experience and hence presentations at university certainly were beneficial in increasing confidence.

Writing skills were also important; one supplier finding that one of the most suitable ways of developing writing skills was to send new recruits on a creative writing course.

At this point no supplier had mentioned knowledge of marketing theory. When the moderator prompted the group by asking for comments on the importance of this, it was agreed that knowledge of marketing theory was useful and would serve as a good introduction to a career at a market research consultancy. However, it was clearly not viewed as necessary in comparison to the above skills.
Buyers:
The key generic skill suggested by buyers as important in recruiting junior marketing research staff was an ability to think strategically. In particular it was felt that it was important to be able to think objectively and clearly, at a higher level than the specific problems or symptoms discussed by the client - note that in this case the client constitutes an internal department, or organisation related to their own (e.g. Tourism Commission aiding in the buying of research for a regional operator). Understanding the research problem was recognised as a critical issue, often clients were not aware of the exact nature of the problem. “Sifting skills” were considered essential to sort relevant from irrelevant input and arrive at the research problem. It was recognised that this required experience and a certain level of confidence that came with industry experience (hence the appropriateness of employing graduates with experience).

“We need people who can interpret the needs of the organisation and put it together in a market research context. People who can manage the whole process. If the client is a practiced user they will know what to do with it but typically they need some translation”

“Someone who can have that kind of objectivity, a thick skin, to be able to take it, to fight for their own point of view”

“thinking through the problem is important, having an awareness as to how to tackle it”

Related to this was the concept of ability to apply concepts creatively and appropriately rather than in a rote learning “problem X so use technique X, problem Y so use technique Y” approach. Overall it was felt that early career researchers should have an understanding of life, before starting work, since this underlay the market research process.

“Life skills, you can’t expect someone of 21 and straight out of uni to have these – a lot of the value added in our profession is due to experience”

Teamwork was also thought to be essential. The isolation of the market research department within the organisation was a recurrent theme. Related to this, buyers felt that while they worked for the organisation, they also needed to maintain a neutral position in evaluating research findings relating to the organisation. This required an ability to think at a level above the internal politics of the organisation. Again this requirement highlighted the need for experienced staff.

“We are the Switzerland of the company, we work there but we kind of don’t. We are there to provide objective feedback on everything. Sifting through the politics and not getting drawn in, keeping objective is important. As a young person you can be drawn in to research to get a particular answer”

“It scares a young person to be told they are wrong” ... “That’s why we take people with 2-3 years experience”

“Research is done for a reason. If the client doesn’t hear what they want to hear, then it just gets left on the shelf, it doesn’t get used”

“An excellent researcher was also thought to need an insatiable curiosity as to not just what happens, for example why consumers behave in a certain way, but why”
“Researchers have to want to know, a sticky beak, ‘nosy’ quality”

“They should want to know not just how many ticks but what makes it tick.”

Associated with this was the ability to be concise, to get to the point and only give necessary details

“They often think ‘I’ve got this truckload of information’ but it’s taking information out and coming to a conclusion that’s important. All that gets read is the bottom line.”

Pride in their work and accuracy were also mentioned. While the work of new researchers was always checked, checking became less frequent over time, as the researcher picked up skills. However, pride in their work, for example accuracy in details such as spelling, adding and referencing, at the point of employment was important.

A summary of specific mentions for buyers were:

- Strategic/higher level thinking skills
- Ability to apply concepts creatively and appropriately
- Sifting skills
- Interpersonal skills, including reflective listening
- Listening skills
- Teamwork and ability to think above the level of internal politics
- Curiosity
- Inquiring ‘sticky beak’ mind
- Pride in work
- Ability to be concise

Academics

Academics were divided on the need for graduates to have specific skills on entering industry. While there was overwhelming agreement that the market research industry needs skilled communicators, some also felt that there was a need to understand the variety of techniques available and in addition to keep up to date with what ‘tools’ are available.

“The chairman of the firm I worked for in London used to say “I don’t care if they know anything about marketing research, I want very bright and very skilled communicators, recruited from Oxford and Cambridge”, I don’t care what they studied”

What are the key generic skills that you had when you first started work?

New graduates in industry

Skills that recent graduates had that were useful to them in their jobs were report writing skills, computer skills and the ability to question rather than merely accepting what was said. Working in project groups at uni, although viewed as difficult at the time, was seen as an important introduction to working in industry, through both negotiating and dealing with others and additionally, in terms of meeting deadlines.

With respect to report writing, graduates all agreed that a lot of time was spent on learning to write academically, but that this was invariably not appropriate in the workplace. Graduates reported being told to write in a more ‘user friendly’ manner.

“I was criticised for writing too academically! I was asked to change it (“they won’t understand that”) to make it more user friendly”

“They told me “The GM has to read this – he won’t know what that means, take it all out”
“I can’t help smiling when I think back to uni. What we do now is not very academically related”

What broad skills did you gain in the marketing research unit?

New graduates in industry

Specific skills that were gained in the marketing research unit related to understanding concepts and definitions and practical skills, especially in terms of conducting a real-life project. Such a project was thought to bring the otherwise rather technical procedures to life through a real case study. Additionally, graduates thought the practical skills of fieldwork, such as survey work and observation important. Additionally, statistical skills from data entry to analysis were also thought of as a major plus of completing such a unit.

“Meeting deadlines – makes you realise all those years of project deadlines, has really helped me organise my time, to know when to get things done by”

“Computing skills – big part of what you do. Uni experience helped a lot”

“General analytical skills, problem have to solve. One thing you do learn at uni is the ability to question. But this is in most units”

“We had to door-knock in the city of Canning. We had to develop our own questionnaire”

“I was an interviewer, gives you more practical experience”

“Entry into SPSS was useful, and also analysis then formulating recommendations”

What units were most useful to you in your job and why?

New graduates in industry

Students who had completed the fourth year Honours units, considered them as the most useful with respect to their job in marketing research. Such units were noted as particularly useful in guiding them through the many steps involved in a marketing research project. Units focusing on a broad business approach were particularly mentioned. Overall the statistical units, were noted as particularly useful, whether in psychology, marketing or social research.

“The methodology unit in honours was bigger picture and covered more ground. In the unit we did SPSS that we hadn’t in the market research unit. It just went into things a bit deeper”

“My social research methods unit was only a semester, and it was split into qualitative and quantitative research, none of the content was in depth. The experience with SPSS was different. I had too much information in one unit”

“The Advanced Professional Sales unit went into the overall business approach, which helped open my eyes up to what it’s like out there”

Importance of numeracy skills

Suppliers:

It was unanimously agreed that mathematical skills were fundamental for a career in the market research industry. In addition the need for a strong methodological background as developed in
scientific subjects was considered critical. However, most important of all was the ability to stand back and take a broad view as to what is required. That is, the optimum quality is the ability to develop a wider strategic view of the client’s needs before proposing the finer details of the research.

Comments relating to specific maths skills were:

“Maths skills - yes!”

“The ability to look at a lot of data, analyse it and then write a story about it”

Buyers:

In contrast, buyers felt that an ability to interpret data was more important than being a statistical expert. From the client’s point of view, the requirement was an ability to bring all the information together in one coherent whole, in effect, to get to the bottom line.

“Not just knowing stats but how to interpret the information. They don’t need to know the ins and outs of statistics”

“The focus in courses seems to be learning the techniques and not how to apply them, not how to interpret”

“Most of the clients can say 50% this and 50% that, but they can’t pull it all together”

“If I had the choice between a person who was strategically focussed and one who was a statistician, I would go for the former”

“You can teach them the techniques or can buy in the higher level statistical skills”

Appropriateness of new graduates

Suppliers and buyers:

There was general consensus that raw graduates were often unsuitable in terms of the desired skills stated above. One respondent noted that some graduates believed that they knew it all, and were to some extent quite arrogant, after completion of a single marketing research unit. It was felt, that to some extent, the necessary simplicity of the university market research unit led to a somewhat false impression of the complexity of market research in the workforce (and therefore that this naive impression misled students as to the attraction/value of such a career).

“They could come in and say ‘I know how to do market research’. Unless they are getting an indication of the area, not a full understanding it could be dangerous”

“We had a person and asked them if they could do X technique. They said ‘Yes, done that in my degree’. But when it came down to it, it was mentioned and that’s it”

Course outlines – comments on basic market research units taught at Curtin, ECU, Murdoch, and UWA

All participants were sent information on the key parts of course outlines provided by four universities (Curtin, ECU, Murdoch, UWA) several days prior to the focus group session, in order for them to digest the content.

Before discussion on the market research units offered in WA, it was emphasised by the moderator that the basic market research unit in typical third year courses could not be
expected to turn a promising student into a market researcher in the course of a semester, but should at least, highlight the key principles of market research.

**Suppliers:**

Comments from group participants related to projects and content.

**Projects**

While it was considered important that the student experienced fieldwork and the difficulties of interviewing, particularly on a door-to-door basis, first hand, the task of collecting 100 interviews or more, as required in the units, was viewed as not a good use of student's time. It was felt that the surveys were often done superficially, with limited time and attention given, which in turn would lead to biased or erroneous results on which the client may act. (Note: suppliers often came across these surveys in their interactions with clients, who would show them the report and questionnaire).

**Content**

Taking a brief - In terms of content, the most obvious missing component was from the supplier's role learning to take a brief from a potential client. For example, what questions would the supplier ask, what other hypotheses would the supplier explore?

Secondary data - it was thought that one area that could be improved on was knowing where to find secondary data. While it was recognised that the data itself and sometimes the source would change from year to year, the ability to have search strategies for finding secondary data was considered important.

Statistics - It was noted that the range of statistical techniques taught was very wide. The overall feeling was that basic statistics taught well was far superior to many techniques taught superficially without hands-on experience (in the computer labs). The idea of two sessions devoted to multivariate analysis (as on at least one course outline) was questioned. It was felt that two sessions was not sufficient for this area, and that the two sessions could be more usefully spent in a deeper grounding in other areas (those already included in unit, plus perhaps taking a brief).

Ethics - The topic of ethics was raised by the moderator - that is, should ethics be included as a topic in the basic unit. An understanding of ethical behaviour was viewed as important for new entrants in the industry, but was viewed as perhaps less relevant for students. This view was held despite the recognition that the students conducted a project (collected data etc.) during the market research unit. The moderator noted that ethics was often taught as an integral component of many university units, hence the flavour of 'ethics' permeated a student's university experience. Specific ethics relating to the MR industry were viewed as most appropriately learnt on commencing a career in industry.

Case studies – following the comments on the inappropriate use of time in collecting data for projects, it was felt that a case study approach was a far better use of time. One participant recalled from her university days that discussion of the case studies has stayed with her far more than detailed content. The case study method was viewed as improving the 'big picture' view discussed earlier.

Develop industry profile - It was viewed as important that students gain an appreciation and understanding of the industry, so that the
unit was not viewed as ‘just statistics’. This would assist in the profile of the industry and may attract some students who may not otherwise consider such a career.

Overall, it was viewed that the basic market research unit should:
- Develop an understanding of marketing research
- Develop an awareness of the benefits of market research as a management tool
- Highlight the attractions of a market research career.

Buyers:

The problem of students having some knowledge following a single unit of marketing research, but not sufficient knowledge to become a professional market researcher was once again highlighted (as discussed under ‘appropriateness of new graduates to the market research profession’). Specifically, the issue not having a sufficiently in-depth knowledge to apply a research technique were raised. Psychology units were noted as offering substantial depth and knowledge of research issues, such as the issue of control groups.

"People in different areas of our organisation would be doing an element of research in their degree, so they will think ‘Now we know what market research is about’, when they don’t know the ins and outs. We have to fix it up and give it back to them.”

"This unit would not be enough to do market research. Social psychology used to be a 2-year unit, over four semesters at WAIT. Second year would be development of the questionnaire and pilot. Third year would be the research itself.”

"Not too many would understand control groups. This is standard fare in psychology”

“A little knowledge is dangerous”

The units were felt to be both not enough for a career in market research but at the same time covering too much in too little detail. It was thought important to address major practical issues such as what to look for as buyers, problem solving issues and examples or cases of major ‘clangers’. Nonetheless, it was felt that the unit addressed certain aspect well, including ethics, problem solving and questionnaire design.

"I would look at the unit guide if they (a potential recruit) showed it to me and say ‘what else have you done?”

"I think the course should be either a small introductory course, with the bare basics or a full course. The students may do this middle road and think they are beyond that, they will say ‘I know that”

As with suppliers, buyers were critical of the need to address multivariate techniques, when aiming for a basic understanding. Overall, it was felt that there should be more emphasis on the beginning of the course - the strategic issues, and less on the latter end - the more detailed techniques and considerations.

In the light of this view, group members felt that the single unit of marketing research should focus more on:
- Understanding the role of marketing research in the wider business context
- Understanding that the knowledge gained from a market research unit is limited
Problem solving (although this was seen as well covered, the concept is critical and it is impossible to spend too much time on it)

Not covering multivariate techniques

An approach suggested as practical and appealing within the market research unit itself, was to firstly teach students what marketing research was used for, that is identifying the business need through examples or case studies, before 'going backwards' and teaching students how it can be done.

"A way in is perhaps, what market research is used for – customer service research, pricing, new product development"

"If students knew that market research had played a role in redesigning the white pages or an ad on TV, you can explain how market research was used"

New graduates in industry

Market research units as experienced by the graduates were felt to be too broad and consequently covering too much ground too fast, making content relatively indigestible. The importance of understanding the statistical aspects of the course was noted, but units appeared to neither offer a brief overview of a technique, such that the approach is flagged for later use, nor offer a sufficiently in-depth explanation of the topic. Hence the time spent on teaching techniques was viewed as wasted since graduates did not understand the technique even after a 2-hour lecture. The concept of a lack of time to digest the material was a recurrent theme across all participants and was exacerbated by the heavy project load which often required collecting data and analysing it. It was firmly believed that the understanding of multivariate techniques should be confined to a specific course in multivariate techniques and that a brief outline of the technique and what it did was all that was required in the undergraduate market research unit.

Associated with the focus on statistical details was graduates disbelief at the need to memorise formulae for statistical techniques for exams in a market research unit. Graduates unanimously agreed that memorising formulae was inappropriate, especially when the test was available on pull-down menus in SPSS. However, graduates noted that it was important to understand the principles of the technique, that is, what the test does.

Aspects which graduates thought should be included but often were not or were not in sufficient depth included ethics which was often seen as a tack-on in each unit, such that it appeared as an item to be checked off in the course content rather than an integral part of the unit itself. Qualitative research, recognised as an important aspect of marketing research, was also viewed as neglected in marketing research units. However, one graduate viewed teaching both qualitative and quantitative aspects in the same unit as being too rushed and too much, once again highlighting the difficulty of a course that was too broad.

Overall, learning to define the problem was viewed as a really important aspect of the unit. The difficulty of defining the problem was recognised as relevant to other units in addition to marketing research, even extending to the honours program and defining the research problem or thesis question.

Generating interest in the topic of market research, for example by introducing a
market research unit in terms of ‘this is what research has been used for’, would raise awareness of, and the importance of the role of, the market research industry.

**Other comments were:**

- Need more Australian books and cases;
- Need more tuition using SPSS (e.g. using syntax for repetitive analysis)

> “We didn’t have a project in marketing research. It was learn this and learn that. It was all down the line. In the SPSS component, we didn’t know what a significant difference was”

> “I panicked when the assignment was due. It didn’t give you enough time to understand. I found I was there and learning it for the sake of the assignment rather than a skill I would use later on. The reports people would have done would not have been very accurate. Everyone I knew in that unit said it should have been a year course. To try to put qualitative and quantitative together was too rushed, way too rushed”

> “We are so isolated we do have a very different environment than where the marketing literature comes from. Texts, cases, if I do another case about Coca Cola or IBM, I’ll burst”

> “I agree, the assignment was not from a practical angle. In another unit, we developed a marketing plan for the company, made it come to life, which didn’t happen in other units where you just read about it”

> “It covers too much”

> “We had all these different tests and analyses and stuff, it goes over it too fast and you sit there and you don’t have a clue what they are talking about. You copy everything down and think I’ll read it later and hopefully understand it.”

> “We had to remember the formula for chi-squared and it would be in the exam as well. It means nothing to you until you know what does”

> “And when in honours they say – you don’t need to use the formula any more you just click on that (much laughter and agreement)”

> “Week 1 defining the problem – I thought that was really important. Even though we had done it in a couple of units, as soon as we got to Honours it was a case of OK tell me your research problem”

> “Need to consider role of the market research unit – making people aware of the types of market research, what it involves, what it can do. That is one of the most important things. Think about what the other people who did the unit – what are they using the unit for? They may be buyers, not just think about it from our point of view, but for those people as well”

> “If we were taught about research and what it can offer. I’m sure most people wouldn’t know what it can offer. If we can get people knowing what it can offer, what it can do it would be mighty useful. In raising the profile of market research”

**Academics**

Academics viewed teaching a market research unit as difficult. The key problem perceived by academics in the teaching of a market research unit was the need to educate both potential suppliers and buyers simultaneously, since the skills required by each varied. Overall, it was recognised that
the unit could potentially cover a wide set of topics, and that practically, in the space of a 13-week unit, all that a single unit of market research could do is to provide the student with a foundation for future development in marketing research.

At a more specific level, teaching market research was viewed as difficult in that it ranged across diverse issues from problem solving to statistical skills and that both of these topics were extremely difficult to teach. Academics felt that problem solving, in particular, needs to be learned through experience. The difficulty of teaching statistical techniques was also mentioned, some procedures such as conjoint analysis and multi-dimensional scaling were viewed as highly practical, but that being able to be fully in command of these approaches required constant updating of skills. In contrast, it was felt that conducting statistical tests was the exception rather than the rule in the market research industry and that much of the research conducted took a relatively ‘cookbook’ approach.

As with new graduates in industry, academics thought that it was extremely important to develop the need to solve the problem before teaching the mechanics of the topic. One suggestion was to develop a market research unit covering the basics, followed by a practical business statistics unit to give students the tools to apply when the problem was understood. Overall, academics viewed the unit as teaching content that was best experienced.

“Difficulty of teaching is designing a unit to teach both supplier and buyer skills. If they don’t go on and do some additional research units all you are providing is a foundation”

“Most of time in industry they’re not going to use those techniques. To teach them properly it’s a lifelong thing, I am still learning”

“I’ve only seen one company that tests for stat significance. So I’m not sure why it’s so critical for students to know the skills”

“Hard to teach problem solving, but need learning by doing, need mentors. Until you have had experience of working in an organisation and dealing with managers who are giving you information that may not all be relevant, I really think it is an apprenticeship thing”

“It’s also the pace of learning. They are trying to assimilate a lot of information and to some extent defining a problem takes time. You can’t teach experience”

“The Marketing Research unit needs to be taught in terms of developing a thirst for these esoteric skills we teach. At the moment they are taught the esoteric skill without a motive or reason for wanting to know it, (i.e. mechanics before having the reason to use it) and the next term when they want the skills, they have forgotten”

**Overall comments on suitable education for students**

**Suppliers and buyers:**

Both groups recognised the importance of life skills as discussed under ‘generic skills’ in this report. Members felt that a unit in life-skills would be appropriate, to encourage students to accelerate their development. Additionally, it was thought that knowledge of business life is important in learning market research, since essentially market research involved measuring life. While recognising that market research was
taken at the undergraduate level, group members felt that market research was more appropriate as a third year unit than a second year unit.

** Suppliers:**

Statistics – the lack of ability in statistics was viewed as a critical aspect. The idea of developing a vocational unit focussing on statistics for market researchers was suggested.

The Diploma in Market Research was discussed. The moderator noted that the Graduate Diploma is offered by universities able to match the 5-6 units of the University of Southern Queensland ‘template’. The critical factor in undertaking the Diploma is that two marketing research units are taken: one, a basic introductory unit, requires no major project, while the second is essentially a project involving data collection. The Graduate Diploma generated little discussion among the group.

Participants suggested that a unit in Philosophy would be appropriate for students while at university, teaching students how to think.

The excellent set of units offered by ADMA were mentioned as advantageous to people starting a career in advertising.

** Academics**

Overall, academics felt that while students viewed the market research unit as difficult at the time, that in many cases it was a unit that students remembered, and perceived the benefit in the longer term.

“Students see it as much more effort this unit, but pass them in the corridor months later and they say “hi”, it’s the unit they don’t forget”

“There are so many concepts to learn, it is difficult until you encapsulate the whole concept, until they get to the end. If you ask retrospectively whether they would have done things differently, they always would. They compare it with other units and say this is so much harder”

** Appropriateness of a generic skills course**

** New graduates in industry**

Graduates were particularly asked their comments on the appropriateness of a generic skills unit at the university, to assist with developing important generic skills. Graduates viewed the introduction of such a unit negatively, and considered that all units should consider the development of generic skills, rather than isolate the skills artificially. In addition, graduates thought that a unit based on generic skill development in the first year of a university course, would not be taken seriously and that students would view it as a unit that had to be passed, rather than a unit that students would be motivated to do well in. Regardless, students in the first year would not view the unit as one that would help them in their working lives. Ironically, graduates thought that students would most appreciated such a unit later on in academic life, even though the skills were most needed in the early years.

“You would think ‘You are here at uni and this is what you have to do to write this assignment and get this mark’”

“If a generic skills unit is compulsory, say first year, people are not going to take it seriously”

“This is the same with the marketing research unit in our first year. It was kind of
like, I'm not going to be a market researcher and so I'll just do it to pass, do rote learning. When you are in first year, you say I will pass and that is it"

Academics

The concept of a generic skills course was viewed as helpful, benefiting students in subsequent studies. The difference in students' generic skills at universities where it had been taught (e.g. ECU) was noticeably improved, for example in terms of lateral thinking skills. However, it was no longer common practice at universities, which had a tight selection of first year units as a base to subsequent majors.

Other comments: Status of the marketing research profession

Overall, there was an underlying feeling that market research did not have a high profile as a career, although buyers held a more positive view.

Buyers:

Buyers recognised the increasing profile of marketing research as a profession. This was put down to two reasons: the increased level of accountability promoting the need for research and the research component in many courses, particularly the MBA programs, familiarising business people with the advantages of research. The status of professionals in the industry was likewise expected to increase and hence the demand for jobs in the industry. This only serves to highlight the appropriateness of a good grounding prior to a market research career.

"People say 'we'd love to get into the industry. You never used to hear that. There's no lack of demand for positions"

"The buyer community see we are human beings. Market research in days gone by was seen as very 'boffy'"

Academics

Participants remarked on the diminishing number of head offices in Western Australia (e.g. Aherns, Bankwest) and the associated reduction in status of marketing managers in WA. This impacts the market for WA-based major studies. However, it was noted that there are opportunities within the state:

Firstly, the Perth market is different, in that it is more service orientated and has a larger number of residents born in the UK or children of UK-born parents.

Second, many companies are highly attentive to the technical side of product development, but not so to marketing the product. The Department of Commerce and Trade reinforces this priority, spending so much on technical aspects that little is left for marketing. Taking a specific example of international education, worth $500-700 million a year to Australia, little funding is allocated to the marketing of this lucrative industry.

Similarly, small businesses, which comprise 88% of all businesses in the state, follow the same pattern. This suggests a marketing opportunity for Western Australia in marketing research.

How could the industry help in educating market researchers? Suppliers and buyers

- Providing case studies
- Guest lectures

Both with notice!
Benefits of involving suppliers (or buyers) with students were exposure for both parties, and building the profile of the market research industry, as discussed above.

Academics

While the concept of guest lecturers was applauded, it was suggested that guest lecturers take a stronger role in the running of a market research unit, for example in terms of taking some lectures and designing some content (paid role!). Such an approach was viewed as improving the industry-university link to the benefit of both parties.

How could universities/industry together help in educating market researchers?

One suggestion was that industry could offer places for student work experience at the end of their unit. A further suggestion was a post-graduate diploma in Marketing Research. Suggested guidelines were: a 5-year exclusive arrangement between the industry and one tertiary institution, tendered every 5 years, funded by all major suppliers and buyers in Perth. While the industry in WA is small, it was thought that even if run only every 2 years that such a program could be viable, benefiting the industry enormously.

One academic was conducting a survey of how the business community perceive market research, following a similar study conducted 10 years ago.

Further comments are made with respect to the Victorian committee’s initiatives in the conclusions section.

CONCLUSION

All four groups felt that there was a good relationship between academia and the market research industry in Western Australia. However, neither was dependent on the other. For example, several market research agencies preferred to recruit employees with experience in the workforce and/or experience in other disciplines and hence did not recruit purely on undergraduate academic merit. Additionally, universities catered for students intending to enter a variety of fields in addition to marketing research. Nonetheless, it was clear from the focus groups that marketing research was viewed as a very practical unit at university. Many references were made to how difficult it was to teach experience, for example. Hence there is a clear need for a university/industry link.

Several suggestions were put forward to assist in the teaching of the basic undergraduate marketing research unit. These included:

- The importance of developing a market research foundation in a basic undergraduate unit. Not all aspects could be covered and it was important to cover the critical aspect of problem identification well, rather than cover a wide range of topics at a superficial level.

- The need to understand that buyers represent the majority of the industry, and that the needs of a market research buyer were considerably different to suppliers. The need to think strategically was particularly mentioned. There was little need for detailed statistical skills among buyers.
Suppliers, however, needed statistical skills. Not perhaps the fine detail of procedures, but at least of being able to explain the principles of the technique.

Most participants agreed that the type of person was more important than the technical skills. The right type of person would have communication skills, the ability to think laterally, show initiative and intelligence, and have 'a presence. Buyers, suppliers and some academics agreed that much of the 'toolkit' of techniques could be picked up by such a person. However, academics were quick to point out that the ability to perform the techniques was extremely important, and that Perth based agencies seemed to make little use of the wide range of sophisticated techniques available.

- Overall, however, it was agreed that only basic statistical skills should be taught in a basic marketing research unit and that further statistical skills could be developed in units, which particularly focussed on data analysis.

The Victoria Division of the MRSA have set up an Academia/Education subcommittee, in order to attract more quality researchers to the industry. To date, some of their initiatives are as follows:

- Planning to develop a kit for use in tertiary institutions (proposals, case studies, current tools such as Frank Small’s buyer test, list of guest lecturers)

- MRSA present at university open days to promote industry

- Student competitions for best project etc (e.g. Prentice-Hall does this)

- Offering an introductory course in marketing research, for say 3 days for 15-30 people new to industry. No cost to new employee, subsided by the National Council (currently done in NSW and Victoria)

- Traineeships – e.g. graduate working in several related organisations for 10 months, for example, research agency, advertising agency and client company. However, requires substantial coordination and effort and has resulted in very low placement rates. This is largely due to the small number of employer organisations participating. (50-70 apply, 15 short listed, 2-3 placed).

- Some tertiary institutions offer internships in market research organisations (i.e. equivalent to 1-2 units).

**Recommended strategies for marketing research in general:**

- Guest lecturers from industry taking a more pro-active role (e.g. co-designing course, running specific sessions, for example on client liaison)

- Possibility of a postgraduate diploma in market research, partly funded by industry and running perhaps every 2 years.

- More work experience (students in university breaks)

- Internships (industry experience, which counts towards degree, e.g. 1-2 units)
industry traineeships for graduates. This was recognised as worthwhile, but extremely time consuming, due to the need to gain industry agreement and match students to industry partners.

- More joint industry-academic research. One academic is currently conducting a study of how business views marketing research. This is a follow up study to one conducted 10 years ago. Findings will be made available to the MRSA.

**Recommended additional strategies:**

- MRSA present at uni open days and other appropriate events to promote industry and encourage best graduates to join the industry

- Universities to promote offering prizes or bursaries, for university students, sponsored by market research buyers or suppliers—

Overall this report proposed many strategies that can be adopted to strengthen ties between universities and the Market Research industry. The future of the industry is in our hands. Let us develop stronger bonds to improve not only the quality of the marketing graduates produced by universities, but to ensure that the industry and the nature of a market researcher’s job is well-defined in the minds of graduates. This will promote market research as a “first choice” career, which is critical to the future health of the industry.

**REFERENCES**


