Voluntary Disclosures of Personal Information for Direct Marketing Purposes: A Quantitative and Qualitative Comparison of Differences between Contributors and Abstainers

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Abstract
The disclosure of detailed, non-transactional individual-level consumer information for direct marketing purposes is essentially voluntary in nature. This raises the possibility that those consumers who elect to disclose such information may be atypical of the general population. Using 256 personal interviews and a case study this paper explores demographic and value system differences between contributors of personal information and abstainers, and provides an interpretive insight into the reasons underlying the differences.

The results of this study reveal that consumers who voluntarily contribute personal information for direct marketing purposes are different to those who abstain, both qualitatively and with respect to values, prompting a re-appraisal of current targeting and customer profiling methods.

Background
There is an increasing recognition within the literature of the failure of conventional, aggregated consumer classifications systems to adequately segment and define the post-modern market (Hagel and Rayport 1997a, Petrison et al 1997, Zahavi and Levin 1997, McCorkell 1998, Fairlie 1998, Kelly 2000, Mitchell 2000, Robertshaw 2000). In the post-modern era, attempting to match one umbrella positioning strategy to the needs of assumed amorphous consumer groups will inevitably be less successful than developing multiple personalised strategies (Peltier and Schribrowsky 1997, Pitta 1998, Mitchell 2000). Essentially, the proliferation of splintering market sub-segments demands a more precise mode of consumer classification.

In tandem, rapidly improving database technology has facilitated the faster storage, processing and modelling of vaster amounts of complex individual-level consumer information (Petrison et al 1997, Kahan 1998, McCorkell 1998, Pitta 1998, Mitchell 2000, Courtheoux 2000, Micheaux and Gayet 2001,Wind and Rangaswamy 2001). Market fragmentation and increased consumer eclecticism coupled with improvements in database technology have now led to a growing number of companies abandoning mass marketing techniques in favour of personalised marketing programmes that better meet the needs of the individual (Firat and Shultz 1997, Robertshaw 2000, Pitta 1998).

Over the last decade the shift towards personalised forms of marketing has been accentuated by the advent of digital communication channels including the Internet, interactive television and mobile telephones, allowing the direct marketing industry to increasingly communicate and interact with individual consumers on a real-time basis (Hagel and Rayport 1997a, Courtheoux 2000). Aggregated systems of analysis, which previously involved a single

decision to target one market segment, are now being superseded by millions of independent automated decisions to communicate with individual consumers at an appropriate time. Mass marketing communications in single batches personalised to meet the specific requirements of the individual consumer are now both possible and profitable (Mitchell 2000, Zineldin 2000, Wind and Rangaswamy 2001, Dibb 2002).

The evolution of personalised marketing programmes is however dependent on the availability of up-to-date and detailed, individual-level consumer information. Whilst individual-level transactional data can be obtained from customer records, the acquisition of detailed non-transactional information relating to interests, beliefs, values, opinions, competitor spending habits, future purchase intentions, religion, political affiliation, television viewing habits and a multitude of other lifestyle characteristics essentially relies on voluntary disclosure. The importance of non-transactional data was illustrated in Radford's study (2004), which described how the Co-operative Bank successfully abandoned its sole use of transactional data in favour of supplementing individual-level lifestyle characteristics to build closer customer relationships, leading to increased profitability.

All modern personalised targeting models such as neural networks, and all customer profiling and data appending practices, typically incorporate a proportion of voluntarily disclosed individual-level information. Accordingly, the ability of the direct marketing industry to gather and use such information will exercise an increasingly prominent role in sustaining and extending its competitive position (Lix 1995, Kahan 1998, Pitta 1998, Cerasale 2000, Kelly 2000, Micheaux and Gayet 2001, Dibb 2002, Hirschowitz 2002).

Benefits Conferred by Individual-Level Consumer Information
Individual-level information pertains, or specifically relates, to single, identifiable consumers whereas aggregated consumer classification systems are based on statistical inferences drawn on each individual. Only classification on the basis of detailed, individual-level consumer information enables the development of truly personalised and interactive marketing programmes (Hagel and Rayport 1997a, Nowak and Phelps 1997, McCorkell 1998, Feng 2000).

Greater detail can be derived from individual-level consumer information such as credit history, financial status, charitable affiliations, hobbies, interests, opinions, product and service preferences, and a plethora of other variables. In contrast, aggregated consumer information is mostly derived from group-level national censuses overlaid with publicly available data sources (Hagel and Rayport 1997a, McCorkell 1998, Nowak and Phelps 1997, Feng 2000). Individual-level consumer information is thus more comprehensive and detailed than aggregated information, enabling the identification of hitherto undetected correlations such as the differing value systems and political affiliations that can transcend socio-economic and demographic boundaries (Allen and Ng 1999, Allen 2000, Long and Schiffman 2000, Allen 2001). This improves knowledge of consumer behaviour and expands the range of personalised targeting opportunities (Kahan 1998, Pitta 1998, Cerasale 2000, Kelly 2000, Micheaux and Gayet 2001).

The volatility and unpredictability associated with post-modern conditions are increasing the rate at which the accuracy of consumer information decays. This situation is particularly pronounced where consumer information is infrequently updated (Wang and Splegel 1997). In contrast to census-based data, individual-level consumer information is updated

continuously through ongoing customer contact such that a higher degree of accuracy and recency is achieved (Micheaux and Gayet 2001).

Individual-level consumer information enables the degree of significance of each characteristic to be weighted in relation to the consumer's propensity to respond to a targeted product or service offer (Jackson and Wang 1995, Zahavi and Levin 1997). In hierarchically constructed models of this type a response propensity score is assigned to each consumer on the database based on the combined weighting of each characteristic. For example, the combined weighted scores of political affiliation, age and financial status in respect of newspaper readership. The hierarchy thereby provides a powerful predictive tool by forecasting and optimising the responsiveness of consumers to different offers (Lix 1995, Fairlie 1998, Kahan 1998, Pitta 1998, Kelly 2000, Robertshaw 2000, Micheaux and Gayet 2001). This is an important benefit since forecasting is a critical issue in establishing product commitment and inventory decisions, and in calculating servicing costs such as call centre staffing levels, prior to the targeting of marketing communications. Improved strategic planning can therefore be achieved.

Voluntary Nature of Personal Information Disclosure
The collection of non-transactional, individual-level information for direct marketing purposes is based on the premise that consumers can be persuaded to voluntarily disclose personal details as a result of some type of marketing exchange process. This is usually in anticipation of some perceived benefit. These exchanges include surveys and questionnaires, direct mail and telephone orders, loyalty cards, product warranty cards, replies to direct response ads, sweepstake promotions, rebate and redemption offers (Lix 1995, Fairlie 1998).

The experience of companies collecting individual-level consumer information within the UK market has demonstrated that a majority of consumers are prepared to disclose such information in various different forms (Croft 1997, Gofton 1999, Reed 1999). In the UK alone, millions of consumers voluntarily disclose personal information for direct marketing purposes each year, and the size and wealth of the accumulated information continues to grow.

The amount and depth of individual-level consumer information being gathered by businesses continues to expand, encompassing other channels such as point-of-sale and digital routes. However, this still represents only a proportion of the general population. Clearly, there exists an inherent limitation on the number of consumers who are prepared to voluntarily disclose personal information for direct marketing purposes. Furthermore, individual-level consumer information is derived from self-selected and therefore non-representative samples (Fairlie 1998). Whereas the essence of conventional market research lies in obtaining responses from a representative sample of the universe, individual-level consumer information does not constitute a representative and definable sample. It is therefore fundamentally impossible to extrapolate from individual-level consumer information any universally valid statement.

Traditional Reliance on Demographic Data Capture Methods
Typical direct marketing data gathering practices have relied on the following variables: i) demography, such as age, income, gender, occupation, marital status and family size; ii) geography, usually encompassing postcode regions; iii) receptivity, for example purchase tendency, buying habits, media habits and channel preference, and iv) purchase history, covering frequency, date, location, value and specific items (Copp 1997, Fairlie 1998).

Demographic characteristics correlate well with purchase likelihood and frequency, and play an important role in target marketing decisions (Harrison 1994, Peltier and Schribrowsky 1997, Fairlie 1998). Receptivity and purchase history contribute insight into purchasing behaviour and represent valuable media correlates (Peltier and Schribrowsky 1997, Fairlie 1998). Demographic characteristics have therefore tended to form the most commonly collected data variables across the direct marketing industry (Croft 1997, Hagel and Rayport 1997a, Peltier and Schribrowsky 1997, Lehman et al 1998).

Methodology
The belief amongst industry practitioners that those individuals who contribute personal information for direct marketing are representative of the general population is untested (Copp, 1997; Fairlie, 1998; Leventhal, 2000; Claritas, 2004; Data Locator, 2005). Yet the belief that individual-level consumer information is unbiased has led to widespread confidence in the use of such information in customer profiling and other associated applications across the direct marketing industry. Since individual-level consumer information is gathered from self-selected and therefore non-representative samples, there remains the possibility that contributors of such information may in some respects be atypical of the general population.

The objectives of this study were to establish if differences existed between those consumers who voluntarily disclosed personal information compared to those who abstained, and to consider the implications of any emergent differences for direct marketing practice.

Personal interviews were chosen as the most appropriate data collection method, allowing direct marketing data gathering practices to be explained to respondents such that more complete and informed responses were elicited. In addition, personal interviews facilitated an interpretive investigation of the underlying reasons for the emergence of differences between contributors and abstainers. Finally, with personal interviews it was possible to record information beyond verbal expression. The nature of words used, facial expressions and body language all communicated emotions, motivations and attitudes not apparent from non-direct methods of data collection, adding greater depth in qualitative understanding.

Individuals were approached randomly within a busy Yorkshire city centre environment as potential interviewees. It was however noted that this procedure was not randomised in its strictest sense because different days and times of day may have been associated with an increased preponderance of particular consumer types, for example, unemployed consumers mid-week and employed consumers at weekends, and therefore variation in the chance of particular individuals being selected. Fluctuating preponderances of different consumer types according to particular data collection times could not be controlled within the strictures of this study, forcing an acceptance that the sample frame could not be strictly randomised.

The chosen city centre offered access to a large population whose characteristics broadly reflected those of the UK general population with respect to marital status, economic activity and age as indicated in comparison table 1. House to house visits, and more remote neighbourhood areas, were dismissed on the basis that they introduced an increased likelihood of non-coverage issues. For example, conducting personal interviews in neighbourhoods with a high proportion of well-off elderly consumers was likely to yield different results to that of a neighbourhood largely comprised of younger, struggling families.

Table 1 *Comparison with National Population*

	Yorkshire city centre	UK
Marital status		
Single (never married)	29%	30%
Married or Re-married	52%	51%
Separated	3%	2%
Divorced	8%	8%
Widowed	9%	8%
Employment status		
Employed	57%	61%
Unemployed	4%	3%
Retired	13%	14%
Looking after home / family	8%	7%
Permanently sick / disabled	6%	6%
Other	13%	10%
Age Range		
Under 16	23%	20%
16 to 19	6%	5%
20 to 29	13%	13%
30 to 59	39%	42%
60 to 74	12%	13%
75 and over	7%	8%
Average age	36	39

Source: Office of National Statistics (2001)

The personal interviews were semi-structured to enable a specific list of quantitative topics to be covered whilst providing scope for exploration of the qualitative areas and time to be allocated at the discretion of the interviewer.

Throughout, reassurance of confidentiality of the results was emphasised and the interviews proceeded in a conversational manner. Responses were collected in writing during the interviews and further notes added on completion of each interview relating to facial expressions, emotions and feelings. Consistency in manner of question presentation and surroundings was maintained to reduce the context dependency of responses; for example, the immediate environment, interviewee mood, comfort and recent experience.

All individuals in the UK eligible to disclose personal information for direct marketing purposes formed the basis of the target population, and therefore a nationally representative sampling frame was required. This requirement dictated the use of broad defining characteristics such as gender, age, income and social class. More complex national stratification methods such as geodemographic classification typically require more than 40 separate segments, and were unsuited to smaller sample size employed in this study.

Stratification of the target population did not imply any departure from the principles of randomness; it merely denoted that the population was divided into a number of strata following completion of the interviews. In order to dispense with the need for weighting and to reduce the number of wasted interviews in the post-interview apportionment process it was desirable for each stratum to be approximately equal in size such that interviewees had a similar probability of inclusion per stratum. The target population was therefore stratified based on three age bands and gender, comprising a total of six strata. Approximately one third of the target population was assigned to each age band to ensure that the six strata were similar in size. This allowed interviewees to be assigned to each stratum post-interview with little wastage and without the requirement for weighting. In particular, weighting would have

affected the assumptions that could be made when interpreting data from the random sample (Lehman et al 1998).

The decision to use a random sample frame and apportion interviewees to strata at the post-interview stage meant that more personal interviews would be required than actually used in the study. Whilst it was expected that the wastage would be relatively small since the six strata contained similar proportions based on national population characteristics, a total of 275 personal interviews were conducted to ensure that an adequate, proportionately stratified sample frame was obtained.

Table 2 shows the national proportion of individuals within each gender and age defined stratum.

Table 2 *National Proportion of Individuals per Stratum*

Age group	Male	Female
18-34	14%	16%
35-54	18%	18%
55 and over	16%	18%

The actual proportion of interviewees obtained per stratum is shown in table 3. Each stratum contained more than 30 interviewees, and therefore the Law of Large Numbers applied (Weisstein 2005).

Table 3 *Actual Proportion of Interviewees per Stratum*

Age group	Male	Percentage of total	Female	Percentage of total
18-34	36	13%	48	17%
35-54	46	17%	53	19%
55 and over	46	17%	46	17%

Completed interviews were then assigned to each stratum until the required proportion had been reached, consistent with national representation derived from table 2. Surplus interviews beyond the required stratum size were not used. Allocation of interviewees to strata based on national representation reduced the total number of interviews used from 275 to 256 as shown in table 4. Thus, 19 interviews were unused as a consequence of the requirement to apportion interviewees to strata at the post interview stage.

Table 4 *Nationally Representative Proportion of Interviewees per Stratum*

Age group	Male	Percentage of total	Female	Percentage of total
18-34	36	14%	41	16%
35-54	46	18%	46	18%
55 and over	41	16%	46	18%

It was noted that most nationally representative sample sizes tend to be in excess of 1,000 respondents (Crimp and Wright 1995, Lehman et al, p.291, 1998). The results obtained from this study therefore involved a sample size that could not be generalised across the national

population. Accordingly, the results of this study are indicative in nature rather than confirmative.

The personal interviews began by informing respondents of common direct marketing data gathering practices including consumer surveys and questionnaires, warranty card surveys, telephone and Internet registrations, and loyalty card applications. Respondents were also advised that the disclosure of personal information for direct marketing purposes could be either; a) voluntary in nature or, b) if the disclosure was compulsory in meeting a specific objective, for example a mortgage application, then the individual had the option of whether or not to permit the gathering company to also subsequently use the information for direct marketing purposes. Interviewees were advised that this latter option was commonly made available in the form of an opt-out box.

Interviewees were then asked: 'Do you disclose personal information for direct marketing purposes?' This allowed for the relative proportions of contributors and abstainers to be established. No distinction was made between disclosure where a prior relationship with the questioning organization existed, or with respect to the type of requesting company, market sector or brand association. The purpose of the question was solely to obtain two general groups of abstainers and contributors.

Those interviewees who indicated that they disclosed personal information for direct marketing purposes were asked to describe the reasons influencing their decision, whilst the underlying reasons for abstention were explored amongst the remainder. Next, quantitative measurements of each interviewee's occupation, age, gender, gross household income, values and level of data protection concerns were undertaken. Throughout, reassurances of confidentiality were provided and interviewees were encouraged to be truthful in their responses and to answer all questions. Quantitative and qualitative differences between the contributor and abstainer groups were then evaluated.

The purpose of gathering occupation, age, gender and gross household income data was to establish if demographic differences existed between contributors of personal information and abstainers. Measurement of interviewee values was undertaken because these can transcend and be more predictive than demography alone (Schwartz 1994, Allen 2001), whilst data protection concerns were measured on the basis that these are central to consumer amenability to disclosure of personal information (O'Malley et al 1997, Patterson et al 1997, Petrison et al 1997).

On completion of the personal interviews occupation was assigned to the appropriate socio-economic group shown in table 5, whilst age was grouped into the three bands used in the sampling procedure: i) 18-34, ii) 35-54, iii) 55 and over. Gross household income was split into five bands: i) £0-£9,999, ii) £10,000-£19,999, iii) £20,000-£29,999, iv) £30,000-£39,999, v) £40,000 and over. Interviewee gender was completed without a response being sought.

Table 5 *Socio-economic Groupings*

Social grade	Social status	Occupation
A	Upper middle class	Higher managerial, administration or professional
B	Middle class	Intermediate managerial, administration or professional
C1	Lower middle class	Supervisory or clerical, junior managerial, administration or professional
C2	Skilled working class	Skilled manual workers
D	Working class	Semi-skilled or unskilled manual workers
E	Lowest level of subsistence	State pensioners or widows, casual or lowest grade workers

Source: CACI, 2002

The values characteristics of each interviewee were gathered using a pre-existing scale: List of Values, one of the more commonly used values measurement techniques (Corey and Wilson 1994, Harrison 1994, Allen 2001). This scale is an abbreviated measurement that includes only terminal values and offers a simplified solution to alternative value measurement systems such as Rokeach's Value System, which requires the ranking of eighteen values. A reduced set of nine terminal values is used in the List of Values, which considerably simplified the ranking task for interviewees and thereby reduced response fatigue. The List of Values encompasses the following variables: i) self-respect, ii) security, iii) a warm relationship with others, iv) a sense of accomplishment, v) self fulfilment, vi) a sense of belonging, vii) being well respected, viii) fun and enjoyment, and ix) excitement.

Previous research (Kahle and Kennedy 1989, Kamakura and Novak 1992) has shown that using only a top-ranked value as the classification criterion may accentuate measurement error. More specifically, segments defined by multiple value systems rather than a top ranked value were shown to be more reliable and have greater interpretability. Accordingly, this study used a nine-point scale to rank the importance of each value with 1 representing 'not at all important' and 9 representing 'extremely important'. Only points 1 and 9 were labelled and no guiding explanation was given to interviewees regarding the meaning of values, with the objective of minimising interviewer induced response bias.

The level of data protection concerns amongst interviewees was measured through the question: 'How concerned are you about how companies collect and use your personal information?' Interviewees were asked to rate their level of concern on a five-point scale: i) very concerned, ii) concerned, iii) not sure, iv) unconcerned, v) very unconcerned. This five-point labelled scale provided ease of understanding, an option for expression of neutrality and an acceptable level of within-subject variability.

Results and Discussion
Incidence of Abstention from Disclosure
A total of 157 interviewees (61%) reported that they voluntarily disclosed some form of personal information for direct marketing purposes, whilst 99 interviewees (39%) abstained. This finding suggested that there existed a substantial proportion of consumers within the general population who were unwilling to voluntarily disclose personal information.

Differences between Contributors and Abstainers
Quantitative Differences
Differences between the mean scores of the contributor and abstainer groups were measured using the normal distribution, with critical z values for 5% and 1% significance of ±1.96 and ±2.58 respectively. The minimum sample size was 99 for the abstainer group and therefore the Law of Large Numbers applied (Weisstein 2005).

Where critical z values of ±1.96 and ±2.58 were exceeded then the difference between the means was deemed to be statistically significant at either the 5% or 1% level.

Null hypothesis (H_0): There is no significant difference between the two groups. Where a statistically significant difference was observed then the null hypothesis was refuted.

The results are summarised in table 6.

Table 6 *Quantitative Differences Between Contributor and Abstainer Mean Scores*

Value	Data range	Contributors' mean score	Abstainers' mean score	Z-score	Significant difference Yes/No
Level of concern	1-5	3.8	3.9	+0.8	No
Occupation	1-6	2.9	2.8	-0.3	No
Age	>18	43.1	42.5	+1.7	No
Gross household income	1-5	3.2	3.2	+0.1	No
Self respect	1-9	7.9	7.6	-1.1	No
Security	1-9	7.4	6.7	-3.3	**Yes**
A warm relationship with others	1-9	6.8	6.8	+0.2	No
A sense of accomplishment	1-9	6.7	6.3	-1.7	No
Self fulfilment	1-9	6.6	6.6	+0.1	No
A sense of belonging	1-9	6.1	6.0	-0.3	No
Being well respected	1-9	6.7	6.8	+0.3	No
Fun and enjoyment	1-9	7.5	7.3	-1.0	No
Excitement	1-9	6.7	6.7	+0.2	No

The hypothesis that there is no difference in gender between personal information contributors and abstainers could not be tested by differences between means using the normal distribution since the analysis was non-parametric. This was instead measured using the goodness-of-fit Chi-square test as shown in table 7.

Table 7 *Gender of Personal Information Contributors*

Gender	Observed number	Percentage	Expected number
Male	70	45%	78.5
Female	87	55%	78.5
TOTAL	**157**	**100%**	**157.0**

Null hypothesis (H_0): There is no difference in gender between the two groups.

Table 7 provides a χ^2 value of 1.8. Two levels of significance (α) were assessed: 5% and 1% using 1 degree of freedom. The following critical values were obtained:

$$\chi^2_{0.05,\,1} = 3.8$$
$$\chi^2_{0.01,\,1} = 6.6$$

At both levels of significance the null hypothesis was supported, with no significant difference in gender.

'Security' emerged as a significant difference between the contributor and abstainer groups at both the 5% and 1% levels of significance, with contributors placing a greater level of importance on this attribute than abstainers. This suggested that the former were more likely to view voluntary disclosure of personal information with less dissonance, and with greater reassurance in the security of such information. There were no significant differences between contributors and abstainers with respect to the remaining values, level of data protection concerns, occupation or gross household income.

Qualitative Differences
The two groups differed in their intensity of expression, with abstainers displaying a greater lack of trust and disinterest in the disclosure process than contributors, typified by comments such as: 'I don't trust these companies to use my information responsibly' and 'Not interested, it's a waste of time and I don't want to get stacks of junk mail.'

Abstainers were less convinced that their personal information would be held securely and preferred to keep such information private: 'I'm not confident data stays protected if disclosed' and 'Don't trust how they'll use it or who it will be passed on to.'

Scepticism also emerged as a differentiator, with abstainers being more cautious towards the direct marketing industry's activities: 'Waste of time. They just use it to send you junk mail' and 'I'm worried about how the information will be used, like passing it on to companies who then send out junk mail.'

Contributors of personal information were generally more enthusiastic in their tone of response and cited a number of reasons for their readiness for disclosure.

Firstly, an existing customer-company relationship appeared to increase the willingness of interviewees to disclose personal information to that company, primarily because the relationship engendered trust: 'I'd trust them to be responsible based on past experience' and 'I'd be more trusting in how they used my information.'

Secondly, the offer of an incentive motivated those who would otherwise have been indifferent to requests for personal information. The disclosure of personal information was perceived to be a reciprocal exchange process; from an interviewee perspective since such information was known to have a tangible value to the companies collecting it, then these companies were expected to provide recompense: 'Depends what the incentive is. It might give me a nudge to fill something in where I might not be bothered otherwise', 'I love prize draws and free gifts' and 'I am getting something in return and so would be more bothered about filling in my details.'

Thirdly, interviewees were more inclined to disclose personal information where data protection guarantees were evident: 'Tell me what they were using it for and provide guarantees it would not be passed on or used wrongly' and 'Only use it for what they say they'll use it for and not sell it on.'

Finally, interviewees reported a greater willingness to disclose personal information where evidence of longer term reciprocal benefits was apparent such as personalised service levels, and more relevant and customised product offers: 'If I got better service or they used it to bring out new stuff that was of more interest' and 'Show me what I'd get out of it. How I'd benefit.'

Proclivity for disclosure of personal information was thus influenced by trust in the gathering company to use the information securely and responsibly, and the offer of short-term incentives and evidence of longer-term benefits.

Customer Profiling and Differences Between Contributors and Abstainers
Secondary data were obtained from a leading UK mail order company relating to the use of externally acquired individual-level consumer information for customer profiling purposes. For reasons of commercial confidentiality, the identity of the mail order company and external consumer information provider are not disclosed.

The mail order company already possessed detailed transactional information on its customers but lacked lifestyle, lifecycle and demographic information needed to better understand its customers and those factors underlying purchase behaviours. For example, age and family composition were believed to be key determinants of product selection. By using external, individual-level consumer information to profile its customer base the company sought to gain a better understanding of its customers' motivations, needs and wants, to increase personalised customer contact, to better delineate its product offerings and to deliver more precise product and service customisation.

A match rate of 33% was achieved between the externally acquired individual-level consumer information and the company's customer base. That is, 33% of the company's customers had at some point voluntarily disclosed detailed personal information through some type of consumer survey, questionnaire or similar device to the external consumer information provider. The remaining 67% of the mail order company's customers had not disclosed personal information to the provider. The externally acquired information was demographic in nature and did not include values characteristics.

It should be noted that the external consumer information provider employed several data capture routes to acquire such information, rather than relying on one specific channel such as postal surveys, and it had also merged with a number of other commercial consumer databases at the time of this research. In combination, these factors contributed to the relatively high match rate of 33%. In addition, those individuals who had not disclosed personal information to this particular provider could not be assumed to be generic abstainers since they could have disclosed such information to another provider. However, since nearly all households in the UK had at some point been asked to disclose personal information by this particular provider, a general comparison between those abstaining compared to those disclosing could be undertaken.

The results of the customer profile demonstrated that the customer base was over-represented with respect to married females with children, aged 35-54 with a household income of less than £20,000 per annum. Occupation was biased towards manual workers and housewives. Accommodation was typically rented and lifestyle interests included gambling (football pools and lotteries), fishing, pets, caravanning, camping, gardening, pub visits, catalogue shopping and reading tabloid newspapers.

The mail order company assumed that the 67% of customers who had not disclosed personal information to the external consumer database company exhibited the same overall characteristics as those who had voluntarily contributed such information. Accordingly, the mail order company generalised the customer profile findings matched against 33% of its customers across the entire customer base, and used this to guide the development of advertising and promotional messages, tailor marketing communications and to provide direction for the catalogue content. This practice is common across the direct marketing industry (Claritas 2004; Data Locator, 2005).

The findings of this study suggest that generalisation of the customer profiling exercise in this manner is deficient because of differences between voluntary contributors of personal information and abstainers. Differences in values and levels of trust and scepticism lead to different response and purchase patterns. For example, early adopters have a greater propensity to purchase technological products such as mobile phones and computers and are known to possess different values to other groups. The assumption that the profiled results of a matched section of a customer base can be generalised across the whole customer base is erroneous and potentially leads to the misclassification of segments, prompting a re-appraisal of current practice.

Conclusion
A number of limitations in this study should be noted. Firstly, the presence of an interviewer may have influenced the responses provided due to the more intrusive manner of investigation compared to alternative methods. In particular, interviewees may have been more inclined to provide answers that they believed would meet with the approval of the interviewer. Secondly, the results cannot be generalised across the national population due to the sample sizes involved, and should be regarded as indicative in nature rather than confirmative. Thirdly, the findings of this study provide a general indication of differences between abstainers and contributors; the type of prior relationship with the questioning organisation may exert a more specific influence on consumers' propensity to voluntarily disclose personal information.

The finding that a sizeable minority (39%) of consumers abstain from voluntarily disclosing personal information for direct marketing purposes is in broad agreement with prior studies and with that of industry practitioners. Those who abstain from the disclosure of personal information are more distrustful of direct marketing activities, tend to be more disinterested, sceptical and less convinced of the benefits conferred by disclosure of such information.

This suggests that the direct marketing industry can encourage greater levels of voluntary disclosure by educating consumers on the benefits of personalised customer relationships and the delivery of truly customised product and service offers, by seeking to eradicate the damaging perception of the industry's association with 'junk mail' and by building greater trust within the general population.

There was no evidence of demographic variation in willingness to voluntarily disclose personal information. Whilst abstainers had slightly greater data protection concerns, the level of concern was not significantly different to those who voluntarily disclosed personal information. Companies requesting individual-level consumer information are therefore likely to encounter similar rates of abstention across different age, gender, occupational and income groups. However, contributors of personal information may assign significantly greater importance to the 'security' value than abstainers. Those individuals who voluntarily disclose personal information are also more likely to trust in the responsible use of such information and its security, and be more convinced of the benefits conferred.

The finding that contributors attach greater importance than abstainers to the 'security' value is ostensibly counterintuitive. However, the 'security' value's opposing 'self respect' value is associated with a disregard for enjoyment and a disengagement from hedonistic behaviour. As many direct marketing data capture practices typically incorporate some type of incentive and often employ gimmicks such as sweepstakes and prize draws to boost response rates, these propositions are least likely to appeal to those with higher 'self respect' values. Those consumers with higher 'self respect' values are therefore least likely to voluntarily disclose personal information for direct marketing purposes, with a corresponding preponderance of the opposing 'security' value amongst the contributor group.

The prevalence of 'security' values amongst contributors may also be attributable to the particular measurement instrument used in the current study. Specifically, the nine-point scale used to measure values may have produced superficial discriminations that were artefacts of the scale and not indicative of true discriminations. An alternative approach employing a smaller number of higher order, separate values in tandem with a reduced number of labelled, scale points for each value may yield different results. Further research is therefore advocated to test the empirical validity of the observed differences in 'security' values between the two groups using a reduced number of scale points and alternative system of values measurement.

Essentially, the findings of this study indicate that individuals who voluntarily disclose personal information for direct marketing purposes are different to those who abstain both qualitatively and in terms of non-demographically defined characteristics. Consequently, individual-level consumer information disclosure may be biased towards particular consumer types. The absence of demographic differentiation between abstainers and contributors, long assumed by the direct marketing industry to constitute an absence of bias in individual-level consumer information disclosures, may be rooted merely in the system of measurement. This has a number of overlooked implications for direct marketing practice.

Firstly, since voluntarily disclosed individual-level information is likely to be over-representative of consumers with higher 'security' values, and given that those consumers with higher 'security' values are known to have different purchase patterns to those with lower 'security' values, response rates to targeted communications are expected to vary according to the nature of the offer. Given that lower 'security' values tend to be associated with early adopter purchase behaviour (Kamakura and Novak 1992), this suggests that companies targeting high technology electrical products at early adopters will be less successful in recruiting customers using direct marketing techniques that rely on voluntarily disclosed personal information.

Secondly, the critical assumption in customer profiling exercises is that those customers matched against the external consumer database are representative of the entire customer

base. In actuality, there appear to be key differences between contributors of personal information and abstainers, and by extension between matched customers and non-matched customers. These overlooked differences potentially result in a misrepresentation of the true characteristics of the overall customer base by disregarding significant differences in values that underlie different purchase behaviours. The relevance of personalised marketing messages, and accuracy of product and service customisation may therefore be diminished for a proportion of the customer base, leading to a reduction in profitability potential.

These findings prompt a re-appraisal of extant target marketing and customer profiling techniques, and suggest that a revision of the theoretical approaches employed would allow for a better understanding and more effective use of non-transactional, individual-level consumer information.

Further Research
Generalisation of the results across the national population could be achieved by repeating the study using a sample size in excess of 1,000 personal interviewees.

Larger studies should test the quantitative validity of the observed value difference and, if supported, seek to gain an improved understanding of how and why values influence disclosure proclivity. The findings would have particular relevance for those companies employing individual-level consumer information to target prospects for new products and services, where early adopters have differing values to those of the general population, and for improving the efficiency of customer profiling techniques.

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