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**People Who Complain about
Advertising: The Aficionados,
Guardians, Activists and Seekers.**

*Globally, the five countries who have the highest annual advertising expenditure have seen their expenditure almost double in the last 10 years even though some advertisements may be 'unacceptable' (that is, unfair, misleading, deceptive, offensive, false or socially irresponsible) to consumers. We investigated consumer complaint responses specifically within the area of advertising in Australia which has the second highest advertising expenditure as a percentage of GDP in the world. Our findings indicate that complainants can be classified into one of four typologies based on identified underlying factors: **Advertising Aficionados; Consumer Activists; Advertising Moral Guardians; and, Advertising Seekers.** Further, the predictive model presented is significantly related to enable the elements within the population who would be complainants to be identified.*

Keywords:

Introduction:

Advertising has been described as "*persuasive, intrusive and pernicious*", whilst advertisers have been labelled as "*mischievous*" in their attempts to reach and persuade their target markets (Harker and Wiggs 1999). Globally, advertising spend has grown dramatically with advertising expenditure in the USA, UK and Australia, for example, amounting to over 1% of these nations' Gross Domestic Product and the five countries (USA, Japan, Germany, UK and France) who have the highest annual advertising expenditure have seen their expenditure almost double in the last 10 years (CEASA 2002). This indicates the economic and social importance of investigating the advertising industry.

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Research has revealed a connection between annual advertising expenditure in a nation and the presence of a self-regulatory body concerned with the investigation of 'unacceptable' advertising (Miracle and Nevitt 1987). It has been suggested that the more money spent on advertising in a country, the greater the need for protection from this unacceptable advertising (Harker 2000). Extant research therefore highlights both the social and economic importance of, and the emphasis placed on, the most visible element of the marketing mix. It has also indicated that there may be concerns regarding the potentially harmful effect that advertising can have on the more vulnerable members of our society. That is, there are those elements of the population who may be adversely affected by 'unacceptable' advertising such as minority groups vilified in advertisements (examples appear later in our paper).

This leads to those problems within advertising identified by Volkov, Harker and Harker (2002) who suggested that some advertisements may be 'unacceptable', that is, unfair, misleading, deceptive, offensive, false or socially irresponsible. It is for these reasons that industry and regulatory responses to consumer complaints about these problems have become important areas to address (examples of recent 'unacceptable' advertisements are discussed later in our paper). In our research we determined the antecedent factors influencing consumers who complain to the Advertising Standards Board and provide a profile of those complainants. It is in fact the first identified study where the researchers have been granted access to the actual complainants by the advertising, self-regulatory body and our study was able to bring together disparate theoretical research that appears in published literature and empirically test these theories in one major study enabling an holistic profile of the complaining public to be modelled. This further identifies the uniqueness and importance of this study.

Our article has three objectives; first, to bring together established research in the field of consumer complaint responses, second, to contextualise this research into the area of complaints about advertising in Australia and, third, to empirically test the propositions posited inferring that there are generalisable differences between complainants and non-complainants and that the underlying factors which differentiate these two segments of the population are identifiable and able to be utilised to construct a predictor model to classify either complainants or non-complainants.

The results of our empirical analyses allow both academics and practitioners a better understanding of the complaining public and further, assist marketing communications strategists with more effective ways to reach their target markets without engaging in destructive discourse through publicised complaints about their productions.

Published studies demonstrate the importance of advertising from an

industry expenditure point of view. Advertising expenditure in Australia has increased over 1.5-fold during the last 10 years (CEASA 2002) and an avenue for consumers to voice their complaints about 'unacceptable advertising' has been established comprising of a legal-regulatory framework and an industry funded, self-regulatory framework. This ensures that consumers have an opportunity to complain about advertising they disapprove of, for whatever reason. Thus, consumers exposed to advertising and who perceive that they have been involved in a transaction involving negative inequity may respond through amplified voicing.

Consumer Complaint Responses:

In this paper we discuss *consumer complaint responses* rather than the more accepted consumer complaint behaviour to espouse the thought that "no action" should be treated as a non-behavioural rather than behavioural response. Therefore, *consumer complaint responses* for the purpose of our paper are the set of multiple, active behavioural responses to dissatisfaction. Consumer complaint responses can be described as the set of all behavioural responses portrayed by consumers which involve the communication of negative perceptions relating to a consumption episode and triggered by dissatisfaction with that episode (Day 1984; Rogers and Williams 1990; Singh and Howell 1985). It can be argued that this implies that consumer complaint responses are influenced by a multitude of situational, product and personal variables and unrelated to, but triggered by, the intensity of the consumer's dissatisfaction. This assertion is supported by empirical evidence discussed by Nicosia and Mayer (1976), Day (1984), Tse, Nicosia and Wilton (1989) and Vezina and Nicosia (1990).

A review of the literature by Rogers and Williams (1990) relating to consumer behaviour in this field of study has indicated that researchers are unified in their understanding of post-purchase consumer dissatisfaction. Consumers, fundamentally, have three alternatives for action in the complaint situation (Andreasen and Manning 1990; Hirschman 1970; Singh 1988, 1990). These are:

1. Exiting;
2. Direct Voicing; or,
3. Amplified voicing.

Exiting involves the consumer establishing a personal boycott against the seller or manufacturer to avoid a repetition of the original transaction that led to the dissatisfaction. Exiting behaviour, when working well, obviates the need for public policy intervention. *Voicing* occurs when exiting is unlikely

(for example, if the seller is a monopolistic public utility) or when exiting would not yield appropriately perceived restitution in the opinion of the individual consumer.

Marketing literature identifies five key contributions that the study of consumer voicing affords the marketplace:

1. Consumer voicing is a key signal to marketers that there is unsatisfactory performance within the marketplace (Andreasen and Manning 1990; Chiu, Tsang and Yang 1987; Fornell and Didow 1980; Hirschman 1970);
2. The study of voicing is said to be critical in the explanation and prediction of consumer repurchase intentions and brand loyalty (Day 1984; Fornell and Wernerfelt 1987; Hirschman 1970; Liu, Watkins and Yi 1997; Owens and Hausknecht 1999; Richins 1983; Schibrowsky and Lapidus 1994; Singh 1988, 1990; Singh and Wilkes 1996; Stephens and Gwinner 1998; TARP 1986);
3. Consumer voicing can be utilised by firms as consumer-initiated market information that can be used to make strategic and tactical decisions (Kasouf, Celuch and Strieter 1995; Nyer 2000);
4. Consumer voicing allows for the provision of feedback to the firm (Best and Andreasen 1977; Chiu, Tsang and Yang 1987; Day 1977); and,
5. The nature and amount of consumer voicing in an industry often affects consumer and social welfare (Andreasen 1984, 1985; Singh 1988).

Direct voicing represents the consumer complaining directly to the seller. *Amplified voicing* occurs when the consumer enlists the support of third parties such as newspaper journalists, consumer protection agencies or industry regulatory or self-regulatory bodies to act on her or his behalf. This paper focuses on the amplified voicing carried out by consumers who elicit the support of the Advertising Standards Board on their behalf.

Dissatisfaction:

There is no one accepted academic theory of dissatisfaction within consumer complaining behaviour (Boote 1998; Erevelles and Leavitt 1992; Woodruff, Schumann, Gardial and Burns 1991; Yi 1990). However, in this study we utilised equity theory to discuss consumer dissatisfaction within the setting of responses to advertising. The decision to base our assumption within the equity theory framework is based on the extensive review of literature and subsequent investigation of satisfaction by Fournier and Mick (1999). Their study indicates that the equity model of satisfaction is most appropriate here

due to the fact that the consumers interact with the marketing agent to enable the comparison of input-output ratios between the consumer and the agent. Equity theory relates to perceived fairness of a particular transaction (Boote 1998). Tse (1990) discusses the three possible outcomes of a transaction utilising equity theory. These are:

1. Equity;
2. Positive Inequity; or,
3. Negative Inequity.

Equity is said to occur when the relative inputs and outputs from both parties to a transaction are perceived to be equal. *Inequity* then can be seen to have occurred when the inputs and outputs from both parties to a transaction are perceived to be unequal. *Positive Inequity* is said to exist when, from the consumer's perception, she/he has gained more from the transaction in terms of either inputs or outputs, than the other party to the transaction. *Negative Inequity* is said to exist when the other party to the transaction is perceived to have gained more than the consumer through the transaction. Using equity theory, consumer dissatisfaction results from negative inequity – the consumer perceives that she/he has gained less than the other party from the transaction. Equity judgements can be seen to be based on the consumer's perceptions of fairness (Fisher et al. 1999; Oliver and Swan 1989). Resnik and Harmon (1983) discuss that due to personal biases inherent in people, consumers and managers rarely agree on the appropriateness or fairness of responses to consumer complaints. It can then be suggested that a consumer would complain following an experience of negative inequity.

Identified Triggers:

Past studies (Stephens and Gwinner 1998) have examined characteristics of complainants that may influence complaining propensity such as (Table 1).

It is therefore evident that consumer voicing is a relevant area for investigation from practitioner, organisational and theoretical perspectives within the consumer complaint literature in that it: provides indications of market and firm performance; allows analysis of consumer behaviours; adds direction to strategy and policy formulation; provides meaningful communication between the stakeholders; and, identifies social concerns.

To fully address the phenomena of consumer voicing and build upon the conceptual frameworks presented, the context within which this research has been undertaken is now addressed.

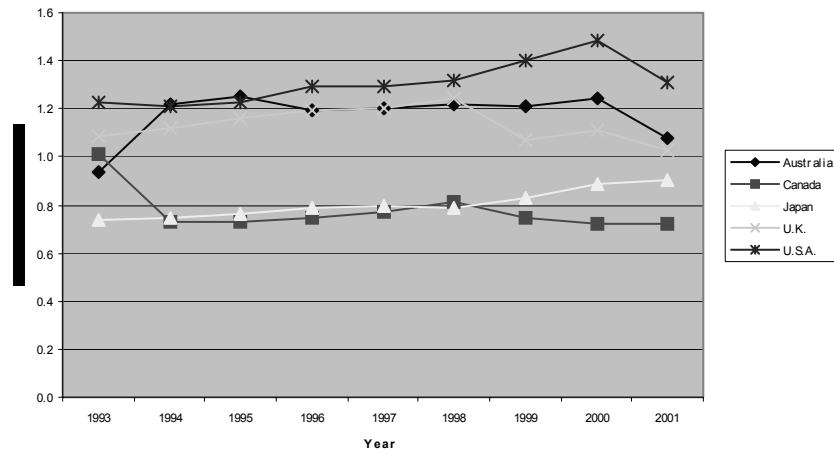
Table 1. Characteristics of Complainants Influencing Complaining Propensity

FACTOR	CHARACTERISTIC	AUTHOR(S) AND YEAR
<i>Demographic</i>	Age	Fails & Francis, 1996 Singh, 1990 Volkov, Harker & Harker, 2003
	Gender	Parker, Funkhouser & Chatterjee, 1993 Volkov, Harker & Harker, 2003
	Income	Fails & Francis, 1996 Volkov, Harker & Harker, 2003
	Level of education	Kolodinsky & Aleong, 1990 Volkov, Harker & Harker, 2003
	Lifecycle stage	Kolodinsky, 1993
<i>Psychographic</i>	Personal Values	Rogers & Williams, 1990
	Personality factors	Bolfing, 1989 Fornell & Westbrook, 1979
	Attitudes towards complaining	Bearden & Oliver, 1985 Day, 1984 Singh, 1990 Volkov, Harker & Harker, 2002
	Attitudes regarding business and government	Jacoby & Jarrard, 1981 Moyer, 1984
	Personal confidence levels	Richins, 1983
	Attitude to past complaining situations	Singh & Wilkes, 1996 Volkov, Harker & Harker, 2002
	Various dimensions of culture such as collectivism-individualism	Liu & McClure, 2001 Liu, Watkins & Yi, 1997
<i>Social</i>	Response to peer pressure	Malafi, Cini, Taub & Bertolami, 1993 Slama & Celuch, 1994
	Individual's self-view	Liu, Watkins & Yi, 1997 Markus & Kitayama, 1990
<i>Situational</i>	Perceived importance of product/service	Blodgett & Granbois, 1992
	Intensity of consumer dissatisfaction	Prakash, 1991
	Decision to voice or not to voice dissatisfaction to the firm	Bolfing, 1989 Day, 1984 Moyer, 1984 Richins, 1983 Singh, 1990 Volkov, Harker & Harker, 2002
	Perception of cost/benefit of complaining	Singh & Wilkes, 1996

Source: Adapted from Stephens and Gwinner, 1998 and literature reviewed for this study

Cementing the Context of this Research: The Australian Advertising Self-Regulatory System

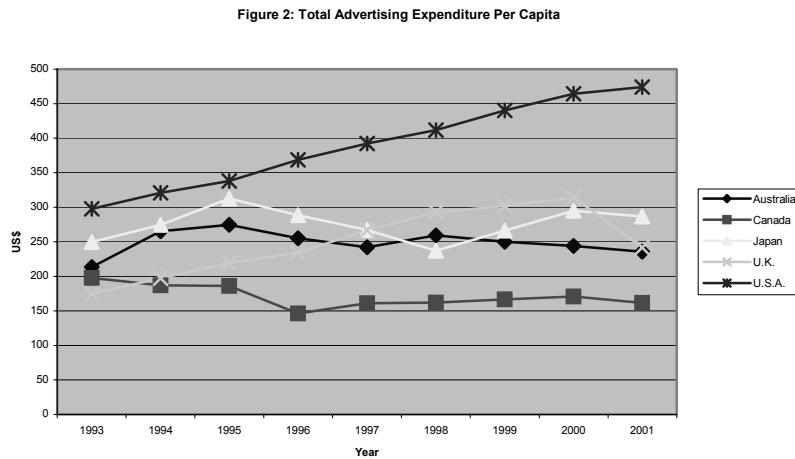
This research is contextualised within the Australian advertising industry and utilises Australian society as the population under investigation. Therefore, the Australian Advertising Self-Regulatory System must be addressed.



Source: Adapted from CEASA, 2002.

Figure 1. Advertising Expenditure as a Percentage of Gross Domestic Product

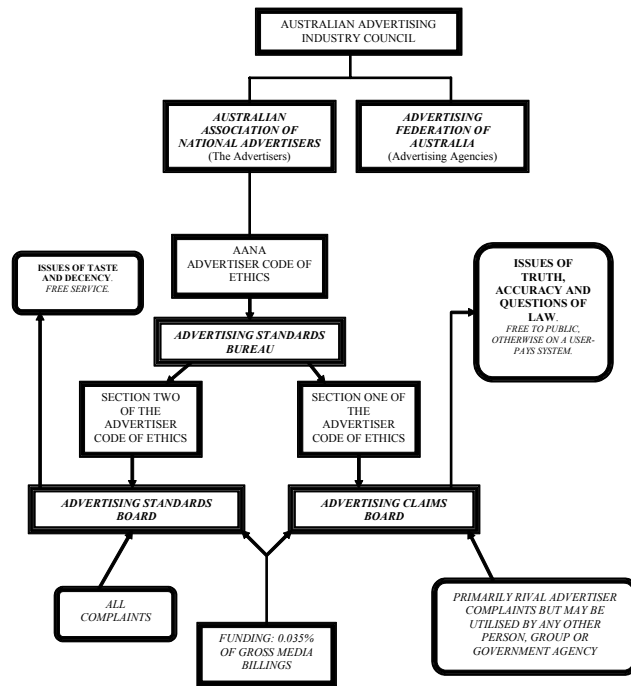
In Australia strong growth in advertising expenditure is being experienced with advertising expenditure having risen nearly 2-fold in the last 10 years and is now an \$AUD8.6 billion (\$US4.6 billion) industry (CEASA 2000, 2002). Further, Australia ranks second in the world (behind the U.S.A) when calculating advertising expenditure as a percentage of Gross Domestic Product (Figure 1) and also has one of the four largest international expenditures when calculating total advertising expenditure per capita (Figure 2).



Source: Adapted from CEASA, 2002.

Figure 2. Total Advertising Expenditure Per Capita

The ASB comprises the Advertising Standards Board and the Advertising Claims Board and it is these organisations that regulate advertising in Australia. This system of advertising self-regulation is schematically depicted in Figure 3:



Source: Harker, Harker and Volkov, 2001

Figure 3. Australian Self-Regulatory System - Post 1997

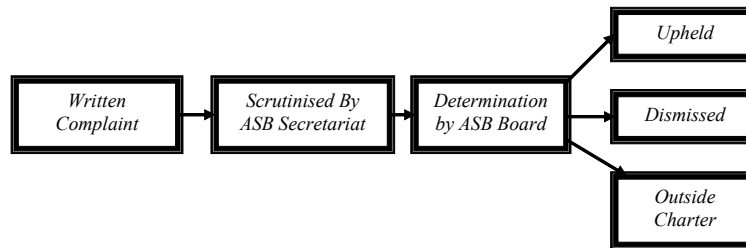
This system commenced in 1998 after the 1996 decision of the Media Council of Australia to disband its system of advertising codes and regulation, including the Advertising Standards Council (the previous complaint-handling body). As a result of research conducted with the assistance of industry, government and consumer representatives, the Australian Association of National Advertisers (AANA) followed the principles outlined by the Australian parliament to fulfil their commitment to develop a more effective system of self-regulation for the national advertising industry (ASB 1999).

The ASB is dedicated to upholding advertising standards through independent complaint resolution processes contained within the Advertising Standards Board and the Advertising Claims Board. Public complaints in relation to issues including health and safety, the use of language, the discriminatory portrayal of people, concern for children and portrayals of violence, sex, sexuality and nudity are considered on a cost-free basis by the Advertising Standards Board. Competitive claims in relation to truth, accuracy and legality of advertising are considered on a user-pay, cost-recovery basis by the Advertising Claims Board. The Australian Advertising Industry Council, which administers and enforces the codes of practice on which the Advertising Standards Board makes judgements, has tried to limit the number of special codes it has formulated. These include (but are not limited to) those for therapeutic goods advertising, slimming products advertising, cigarette advertising and alcoholic beverages advertising (www.advertisingstandardsbureau.com.au). This self-regulatory system is entirely funded through a voluntary levy administered by the Advertising Standards Council and paid for by 0.035% of media billings of the members of the AANA (ASB 1998).

To lodge a complaint it is a matter of writing to the Advertising Standards Board taking care to include a description of the advertisement, a description of the particular complaint, if possible where and when it was seen and the name and address of the complainant. Anonymous complaints and those lodged electronically or over the telephone are not considered (www.advertisingstandardsbureau.com.au). The Advertising Standards Board deliberates over each complaint to determine whether an advertisement:

- Is in breach of the AANA Code, thereby upholding the complaint;
- Is not in breach of the AANA Code, thereby dismissing the complaint; or,
- Falls outside the scope of Section 2 of the AANA Code, thereby returning a verdict that the complaint falls outside the charter of the Advertising Standards Board.

This can be depicted schematically in Figure 4 (Volkov, Harker and Harker 2002a):



Source: Volkov, Harker and Harker (2002a).

Figure 4. Path of Determination of a Complaint

To illuminate the difficulty of having a complaint upheld, in the period 1998 – 2002 figures show that of the 9358 complaints received by the Advertising Standards Board only 404 were upheld in whole or in part – a rate of 4.3% (www.advertisingstandardsbureau.com.au). These figures are comparable to those presented in the research conducted by Crosier, Hernandez, Mohabir-Collins and Erdogan (2000). In the case of the Australian self-regulatory system, the ASB (1999) has stated that there is 100% industry compliance with Board determinations. In all cases where the Board upheld complaints, the advertiser either modified or withdrew the advertisement in accordance with the Board’s ruling (ASB 1999).

Every year there are more than 1500 complaints about advertising in Australia and the new Australian advertising self-regulation system upholds around 4.3% of these. Examples of advertisements that members of the Australian public have found unacceptable, have complained about and had that complaint upheld are outlined in Table 2:

The Research Issue: Complaints about Advertising

The literature suggests that there are differences between those consumers who complain and those who do not. Such findings from the extant literature indicate that complainants tend to be older, have attained higher levels of educational qualifications, earn a higher gross weekly income, possess greater degrees of wealth, have higher participant levels of local community involvement, and, in general terms, have more resources, both intrinsic abilities (e.g. self-confidence, feelings of self-worth) and external (e.g. time, money, qualifications) to avail themselves of to allow them to take action when dissatisfied (Kolodinsky and Aleong 1990; Volkov, Harker and Harker 2002a).

Table 2. Recent 'Unacceptable' Advertisements in Australia

BREACH	GUILTY PARTY/CASE	REASONING	CASE NUMBER
Unfair	Kemalda Entertainment Pty Ltd	Television commercial titled "Rodney Rude - Ya' Mum's Bum" featured jokes that the ASB ruled constituted vilification on the basis of disability and therefore breached the Advertiser Code.	ASB - Media Statement (2000)
Offensive	Smiths Foods	Animated advertisement depicting "camera-clicking" Asians touring a suburban street in a bus.	ASB Complaint Number 69/98
Socially Irresponsible	People's Truth/Heartbalm	A billboard advertisement promoting an adults-only Website failed to treat sex, sexuality and nudity with sensitivity to its relevant audience, particularly given its prominent outdoor location, which effectively placed it on general exhibition to the general public	ASB - Media Statement (2000)
Misleading/ Deceptive/ False	Sony Australia Limited	Promotional material claimed that Sony's DRC television sets provided "Four times the picture resolution of conventional screens". The Board reasoned that average readers of the material would have limited understanding of terminology associated with digital broadcasting and found that while average consumers might infer from the material that the picture quality is four times better than that available from a standard television set "this is in fact not the case".	ASB - Media Statement (2001)

Source: Harker, Harker and Volkov, 2001; Advertising Standards Bureau, 1998; www.advertisingstandardsbureau.com.au

Therefore, in summary:

- Advertising is both socially and economically important to investigate;
- Advertising, the most visible element of the marketing mix, may be potentially harmful to some elements of society;

- Some advertisements may be ‘unacceptable’;
- Consumer complaint responses include amplified voicing which is the focus of this study;
- Consumers complain about advertising following an experience of negative inequity;
- Various consumer characteristics influence complaint propensity;
- This study is contextualised within Australian society; and,
- Previous disparate studies have identified that there are differences between complainants and non-complainants, but one of this articles major strengths is its ability to investigate these differences in one, major, holistic study.

An avenue for relevant research was to investigate whether complainants about advertising differ from non-complainants and lead to the research question:

Can we predict who will be a complainant to the Advertising Standards Board and, if so, how do they differ from the general population?

We attempted to gauge the motivating factors for consumers who complain to the Advertising Standards Board and provide a profile of those complainants. Our research addressed the following propositions:

- *P₁: Advertising complainants are socio-demographically different to those people in the wider population who do not complain about advertising.*
- *P₂: Advertising complainants have different media habits to non-complainants.*
- *P₃: Current societal attitudes and opinions with regard to advertising for both complainants and non-complainants differ.*
- *P₄: There is evidence of complaint behaviour in areas other than advertising displayed by complainants about advertising.*

These propositions were drawn from the extant literature and allowed the authors to construct the questionnaire utilised. The variables utilised and the questionnaire constructed allowed a more holistic investigation than the research previously undertaken. The variables taken from published literature are summarised in Table 3:

Table 3. Propositions and Their Sources:

PROPOSITION	REFERENCE
1. Complainants tend to have different socio-demographic profiles than non-complainants in respect to age, gender, income and education level.	Bearden, Crockett & Teel (1980), Landon (1980), Moyer (1984), Singh (1990), Lawson et al. (1996), Crosier, Hernandez, Mohabir-Collins, & Erdogan, (2000).
2. Complainants tend to have different personal factors than non-complainants such as media habits.	Fornell & Westbrook (1979), Bolting (1989), Rogers & Williams (1990), Singh (1990).
3. Complainants tend to have different opinions in respect to advertising than non-complainants.	Jacoby & Jarrard (1981), Moyer (1984), Singh (1990).
4. Complainants tend to have different attitudes towards complaining than non-complainants.	Jacoby & Jarrard (1981), Richins (1983), Moyer (1984), Day (1984), Bearden & Oliver (1985), Bolting (1989), Singh (1990).

Source: Literature reviewed for this study

Methodology:

There were two populations investigated for this research namely complainants and non-complainants. With regard to complainants, the Advertising Standards Board provided the database that was utilised regarding complainants whose written complaints went before the regulatory panel for adjudication. This allowed access to names, addresses and telephone numbers of complainants who were contacted to enable the surveys to be carried out.

Population: The first population of interest included all complainants to the Advertising Standards Board who had progressed to the stage where their complaints were addressed by the regulatory panel. That is, their complaints had passed the vetting process described earlier (Figure 3).

The second population consisted of elements from the general population within Australia who have never complained to the Advertising Standards Board or any other regulatory body concerned with advertising.

Sample Size: The size of the first population, being those complainants that have survived the screening process conducted by the Advertising Standards Board and listed on their database, was 1647. The sample size selected was 300.

The size of the second sample, being those members of the Australian population over the age of 18 years who had not previously complained to the Advertising Standards Board or any other regulatory body concerned with advertising was 201.

A *post-hoc* analysis utilising Jarboe's (1999) formula indicated that this sample size was sufficient for a confidence level of 95% and a precision level of $p < 0.05$.

Sampling Design: A stratified quota sampling technique was used. Sekaran (1992:236) defines quota sampling as "a form of proportionate stratified sampling, in which a predetermined proportion of people are sampled from different groups, but on a convenience basis". This method of sampling enabled commensurable representation of subgroups from both populations, while minimising budgetary and time constraints. The quotas determined for this study are presented in Table 4 and indicate that there was demographic generalisability of the samples to the greater populations:

Table 4. Stratified Quota Samples Utilised in this Study

STATE	COMPLAINANTS	NON-COMPLAINANTS
New South Wales	117	79
Queensland	61	40
Victoria	41	27
Western Australia	35	24
South Australia	31	21
Australian Capital Territory	8	6
Tasmania	5	3
Northern Territory	2	1
TOTAL	300	201

Source: Research conducted for this study

Data was obtained by telephone interviews conducted between 10:00 a.m. and 6:00 p.m., every day for 14 days. The telephone numbers of respondents in the first sample comprising of complainants were selected randomly from the Advertising Standards Board database provided. The telephone numbers of respondents in the second sample comprising of non-respondents were selected randomly from the Australian White Pages national telephone directory publication. All telephone number selections were made using a systematic random number generator.

Following completion of the telephone interviews, and together with the data entry process, the completed questionnaires were screened to gauge their usability. Elimination of incomplete questionnaires left 501 complete

and 'useable' questionnaires. The final sample size was therefore 501 comprising of 201 respondents who were classified as Non-Complainants and 300 respondents who were classified as Complainants respectively. This sample size of 501 was obtained from 1088 calls (which were organised by the first author), indicating an overall response rate of 46 % (267 - refusals; 155 - not-at-homes; 165 - disconnected). To check for non-response bias, the sample profiles in terms of basic variables such as gender and place of residence were compared with the general population data available from the Australian Bureau of Statistics and the Advertising Standards Board (ABS 1999; ASB 1999). A chi-square test revealed that there were no significant differences between the samples and the populations from whence they came and it was concluded that the samples were representative.

Findings:

The objective of this study was to answer the research question posed, being:

Can we predict who will be a complainant to the Advertising Standards Board and how do they differ from the general population?

The data were analysed using factor analysis and logistic regression. The questionnaire elicited responses covering key areas such as: Demographics (gender, income, education and age); Media habits (TV watching, radio listening, newspaper reading and magazine reading); Opinions relating to advertising; and, Consumer complaint behaviour in areas other than advertising.

Multivariate Analysis:

Analyses of the data were performed in the form of a factor analysis and a logistic regression analysis. This involved the formation of linear combinations of variables primarily to determine the structure of a set of variables to elucidate the underlying meanings of the concept of complaining to the Advertising Standards Board. The logistic regression analysed the relationship between multiple independent variables identified in the study and the single dependant variable of complaining to the Advertising Standards Board enabling the formulation of a predictive equation.

Factor Analysis:

The independent variables of interest were factor analysed with the sample of 501 respondents, using the principal component method of factor extraction. Using a minimum Eigenvalue of 1.0 as the criterion for factors, four factors that accounted for a total of 31.317% of the variance were

extracted. The factors were rotated using the Varimax procedure with Kaiser Normalisation (Table 5). The items are ordered and blocked by size of loading to facilitate interpretation of the factor matrix.

Table 5. Factor Analysis Results

VARIABLE	Advertising Aficionado Factor	Consumer Activist Factor	Advertising Moral Guardian Factor	Advertising Seeker Factor
Advertising is a good thing	0.822			
Advertising is essential	0.808			
Advertising is a valuable source of information	0.779			
Advertising paints a true picture	0.405			
I would complain to a consumer agency		0.705		
I would complain to the manufacturer or service provider		0.666		
I would write a letter to the press		0.625		
I would complain to the store manager		0.601		
Advertising is making us a materialistic society			0.832	
Advertising promoted undesirable values in our society			0.799	
Hours listening to commercial radio per day				0.699
Hours watching commercial television per day				0.655
% Variance Explained	10.557	8.040	7.560	5.160
Chronbach's Alpha	0.7232	0.5971	0.7114	0.3611

Source: Results obtained in this study

Overall, the factor structure that emerged was clear and interpretable. The first factor, which accounted for 10.557% of the variance, had 4 items with loadings above the cut-off of 0.40. This factor appears to capture the complainants' feeling that advertising is a good thing, essential, a valuable source of information and paints a true picture. This factor was labelled the *Advertising Aficionados*. No items had high loadings on any other factor.

The second factor had 4 items with loadings above 0.40, which loaded distinctly on Factor 2. The theme of this factor involves complaint behaviour. This factor was labelled the *Consumer Activists*.

Two items had high loadings on the third factor. This factor accounted for 7.560% of the variance and was well defined with a clear-cut marker variable that had a loading of 0.799 on the factor. This factor captures a dimension of societal values, being materialism and undesirable values, and was labelled the *Advertising Moral Guardians*.

The fourth factor had 2 items with loadings above 0.40 and all of these items loaded distinctly on Factor 4. The theme of this factor involves commercial television and radio. This factor was labelled the *Advertising Seekers*.

The *Advertising Aficionado* Factor had an alpha reliability = 0.7232. The *Consumer Activist* Factor had an alpha reliability = 0.5971. The *Advertising Moral Guardian* Factor had an alpha reliability = 0.7114. The *Advertising Seeker* Factor had an alpha reliability = 0.3611. These results show the marginal reliability of Factor 2 (*Consumer Activists*) and Factor 4 (*Advertising Seekers*), while the rest of the components were satisfactory or better. Bearing in mind that the main aim of this factor analysis is to reduce the number of variables to gain parsimony, the low Chronbach's Alpha for two of the components was not considered to be of great importance.

Logistic Regression:

Logistic regression was used to estimate the probability of being able to predict whether a person will be a complainant about advertising rather than a non-complainant. The dependant variable was binary. Respondents had either successfully complained to the Advertising Standards Board about advertising in Australia or had not. The independent variables, in the form of the factors, were continuous. To use logistic regression any respondent who had successfully complained to the Advertising Standards Board about advertising in Australia was assigned the value of 1, while those who were classified as non-complainants were assigned the value of 0. The four factors (treated as independent variables) were then logistically regressed against the dependant binary variable.

Four factors, as discussed in the previous section, were used in the analysis. The regression was performed with the research sample divided into two groups - Non-Complainants ($n_1 = 201$) and Complainants ($n_2 = 300$).

As shown in Table 6, the overall predictive model was significantly related to the ability to predict which elements of the population would be a Complainant rather than a Non-Complainant (model $X^2 = 105.229$, $p = 0.0000$). This indicated that the predictors, as a set, reliably distinguished between consumers that were complainants and those who were not. In

other words, the model will predict complainants about advertising in Australia more accurately than random guessing over 99.99% of the time. All four factors were significantly related to the likelihood of being able to predict a complainant from a non-complainant: *Advertising Aficionado* Factor, *Consumer Activist* Factor, *Advertising Moral Guardian* Factor and *Advertising Seeker* Factor. Not only was the model significant, the predictions also yielded a high level of success, with an overall correct prediction of 73.25% in the overall analysis between complainants and non-complainants and an even higher rate (84%) when predicting Complainants. That is, prediction success was such that 84% of consumers that were predicted to be complainants were complainants, whereas 57.21% of those consumers predicted to be non-Complainants, were non-Complainants. The overall prediction success was 73.25%.

Table 6. Logistic Regression - Prediction of the Likelihood of Being a Complainant or Non-Complainant

PREDICTOR VARIABLE	COEFFICIENT (B)	WALD STATISTIC	SIG.	R	EXP (B)
Advertising Aficionados	0.334	9.665	0.001	0.106	1.396
Consumer Activists	0.852	55.480	0.001	-0.281	0.426
Advertising Moral Guardians	-0.446	19.001	0.001	-0.158	0.639
Advertising Seekers	-0.382	13.416	0.001	-0.130	0.682
CONSTANT	0.481	21.905	0.001		

Source: Results obtained in this study

Discussion

We aimed to ascertain what are the characteristics of people who complain to the Advertising Standards Board are, and if and how they differ from the general population. After reviewing the literature a research question was identified, concerned with identifying the characteristic differences of people who complain to the Advertising Standards Board and those who do not by addressing ten key comparisons between complainants and non-complainants.

These complainants perceived that the particular advertisements they were exposed to were unacceptable and, further, perceived they had been involved in a transaction resulting in negative inequity. They therefore used

amplified voicing, through the Advertising Standards Board, to voice their complaints. From the Factor Analysis conducted it can be seen that four Factors were significant in the formation of a Complainant. The Factors were (see Table 5 for variables loaded in each factor):

- *Advertising Aficionado* Factor
- *Consumer Activist* Factor;
- *Advertising Moral Guardian* Factor; and,
- *Advertising Seekers* Factor.

The Factors were used as independent variables in a Logistic Regression and a predictor model was created. This analysis showed that the predictor model created was significant and was correct 73.25% overall in predicting which elements under study were Complainants and differentiating them from Non-Complainants. The Logistic Regression equation could be described as follows:

$$P = e^Z / (1 + e^Z)$$

Where, P = predictor

e = odds ratio

Z = the logit, for example:

$$\text{Complainant} = 0.4818 + 0.3343(\text{Advertising Aficionados}) + 0.8525(\text{Consumer Activists}) - 0.4466(\text{Advertising Moral Guardians}) - 0.3820(\text{Advertising Seekers})$$

The following points are made in respect of the Logistic Regression itself and the previously identified influences of complaining propensity. Generally, the more a consumer viewed advertising as a good thing, as being essential, as a valuable source of information and as painting a true picture, the more likely they would be a Complainant. This makes logical sense, as if any of these aspects were contravened in a consumer's eyes, the more likely they should be to complain. Second, the more active a consumer is in terms of complaint behaviour in other aspects of their lives the more likely they would be to complain to the ASB. That is a consumer who would complain to a consumer agency, to a manufacturer or service provider, to a store manager or who would write a letter to the Press, the more likely they are to exhibit active complaint behaviour with regard to advertising in Australia and complain to the Advertising Standards Board. Third, a consumer who perceives advertising as making us an immoral society and promoting undesirable values in our society (two very negative views regarding advertising in relation to social causes) would exercise their active complaint behaviour by letting the regulatory body overseeing the particular industry concerned know that what they are a part of is considered wrong in the eyes

of that particular consumer. Fourth, a consumer who is exposed to commercial television and radio, yet by either choice or circumstance would more often be watching and listening to non-commercial television and radio, would be more likely to inform the Advertising Standards Board of their negative opinions of such commercial entities and would therefore be a Complainant.

Areas for Further Research

Investigation of self-regulatory bodies who handle complaints about advertising is a growing area of research. The implications and significance of such studies in marketing have been recognised both theoretically and practically by academics and industry alike. Also, research into self-regulatory advertising complaint handling bodies has merely been the “tip of the iceberg” in terms of knowledge divulged in this field.

This research has indicated that those consumers that are ‘more disadvantaged’ may lack a voice in this complaint process. These findings correlate with those presented by Kim et al. (2003) which indicate that consumer alienation and prior life experience affect the likelihood of consumer complaints – as evidenced in this research, in a negative manner. This is a strong indication that those who complain are not those identified as being representative of the elements in society who are likely to be disadvantaged by ‘unacceptable’ advertising and this is a further strength of this article. Further research is required to investigate non-complainants especially in light of the scope of this study which investigated consumer complaint *responses* and, therefore, did not specifically investigate those elements of society who do nothing.

In-depth research concerning both complainants and non-complainants (now that we have produced a model to allow us to effectively identify them) is necessary to ascertain how they really differ from each other. Qualitative, depth research is required to fully understand differences in attitudes, opinions, behaviours and lifestyles.

Conclusion

Our research has provided new information about people who complain about advertising in Australia. The significance of this study can be seen in the fact that the Australian advertising industry is an important area of research on the global scale, this is the first study of its kind where the researchers have gained access to “the inner sanctum” of an advertising self-regulatory body to investigate its users and this study was able to bring together disparate theoretical research that appears in published literature

and empirically test these theories in one major study enabling an holistic profile of the complaining public to be modelled. As the expenditure on advertising increases and as consumers are involuntarily exposed to advertising that they may wish to complain about, the representation of their characteristics, their profile as consumers and their differences from the general population become salient. The consumers and other publics of the advertising industry demand an effective system which enables them to amplify their voice when they perceive a transaction resulting in negative inequity. These findings can guide the industry by identifying the complaining public and further, assist marketing communications strategists with more effective ways to reach their target markets without engaging in destructive discourse through publicised complaints about their work.

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References:

- Advertising Standards Bureau (1998), *The Smith's Snackfood Co. Ltd.*, Case Report Number 69/98, date of determination 9 June
- Advertising Standards Bureau (2003), Advertising Standards Bureau, Canberra, ACT, viewed 4 November, <<http://www.advertisingstandardsbureau.com.au>>
- Advertising Standards Bureau (1998), *1st Annual Report*, Advertising Standards Bureau, Sydney
- Advertising Standards Bureau (1999), *Review of Operations*, Advertising Standards Bureau, Sydney
- Andreasen, Alan R. (1984), "Consumer Satisfaction in Loose Monopolies: The Case of Medical Care", *Journal of Public Policy and Marketing*, **2**, pp.122-135
- Andreasen, Alan R. (1985), "Consumer Responses to Dissatisfaction in Loose Monopolies", *Journal of Consumer Research*, **12**, pp.135-141
- Andreasen, Alan R. and Manning, Jean (1990), "The Dissatisfaction and Complaining Behaviour of Vulnerable Consumers", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, **3**, pp.12-20
- Australian Bureau of Statistics (1999), *Australian Demographic Statistics - 3101.0*, September Quarter, Table 6
- Bearden, William O., Crockett, M. and Teel, J. (1980), "A Past Model of

- Consumer Complaint Behaviour", *Marketing in the 80's: Changes and Challenges*, Proceedings of the American Marketing Association, pp.101-104
- Bearden, William O. and Oliver, Richard L. (1985), "The Role of Public and Private Complaining in Satisfaction with Problem Resolution", *Journal of Consumer Affairs*, **19**, (2), pp.222-240
- Best, A. and Andreasen, A.R. (1977), "Consumer Response to Unsatisfactory Purchases: A Survey of Perceiving Defects, Voicing Complaints and Obtaining Redress", *Law and Society Review*, **11**, pp.701-742
- Blodgett, Jeffrey G. and Granbois, Donald H. (1992), "Toward an Integrated Conceptual Model of Consumer Complaining Behaviour", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, **5**, pp.93-103
- Bolfing, Claire P. (1989), "How Do Consumers Express Dissatisfaction and What Can Service Marketers do About it?", *Journal of Services Marketing*, **3**, spring, pp.5-23
- Boote, Jonathan (1998), "Towards a Comprehensive Taxonomy and Model of Consumer Complaining Behaviour", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, **11**, pp.141-151
- CEASA (Commercial Economic Advisory Service of Australia), (2002), *Advertising Expenditure in Main Media 1993-2002*, Canberra: CEASA
- Chiu, C-Y, Tsang, S-C and Yang, C-F (1987), "The Role of Face Situation and Attitudinal Antecedents in Chinese Consumer Complaint Behaviour", *The Journal of Social Psychology*, **128**, (2), pp.173-180
- Crosier, K., Hernandez, T., Mohabir-Collins, S. and Erdogan, B. Z. (2000), *The Risk of Collateral Damage in Advertising*, Department of Marketing, University of Strathclyde, UK
- Day, Ralph L. (1977), "Extending the Concept of Consumer Satisfaction", *Advances in Consumer Research*, **4**, pp.149-154
- Day, Ralph L. (1984), "Modelling Choices Among Alternative Responses to Dissatisfaction", *Advances in Consumer Research*, **2**, Kinneer, T. C. (Ed.), Association for Consumer Research, pp.469-499
- Erevelles, Sunil and Leavitt, Clark (1992), "A Comparison of Current Models of Consumer Satisfaction/Dissatisfaction", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, **5**, pp.104-114
- Fails, S. L. and Francis, S. K. (1996), "Effect of Demographic Variables on Self-Concept of Positive and Negative Word-of-Mouth", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, **9**, pp.200-206
- Fisher, James E., Garrett, Dennis E., Arnold, Mark J. and Ferris, Mark E. (1999), "Dissatisfied Consumers who Complain to the Better Business Bureau", *Journal of Consumer Marketing*, **16**, (6), pp.576-589
- Fornell, Claes and Didow, N.M. (1980), "Economic Constraints on Consumer

- Complaint Behavior", *Advances in Consumer Research*, **7**, pp.318-323
- Fornell, Claes and Wernerfelt, B. (1987), "Defensive Marketing Strategy by Customer Complaint Management: A Theoretical Analysis", *Journal of Marketing Research*, **24**, pp.337-346
- Fornell, Claes and Westbrook, Robert (1979), "An Exploratory Study of Assertiveness, Aggressiveness and Consumer Complaining Behaviour", *Advances In Consumer Research*, Wilkie, W. and Arbor, A. (Eds.), **6**, Open University Press, Philadelphia
- Fournier, Susan and David, Glen Mick (1999), "Rediscovering Satisfaction", *Journal of Marketing*, **63**, (4), pp.5-23
- Harker, Debra (2000), "Complaints About Advertising: What's Really Happening?", *Qualitative Market Research: An International Journal*, **3**, (4), pp.198-206
- Harker, Debra, Harker, Michael and Volkov, Michael (2001), "Developing Effective Advertising Self-Regulation in Australia: Reflections on the Old and New Systems", *Australasian Marketing Journal*, **9**, (1), pp.7-19
- Harker, Debra and Wiggs, Glen (1999), "Three Generations of Advertising Self-Regulation: Learning from our Forefathers", *Marketing Bulletin*, <http://marketingbulletin.massey.ac.nz/article10/article12.html>
- Hirschman, Albert O. (1970), "Exit, Voice and Loyalty: Responses to Decline in Firms, Organisations and States", *Association for Consumer Research*, Harvard University, Cambridge
- Jacoby, Jacob and Jarrard, James J. (1981), "The Sources, Meaning and Validity of Consumer Complaint Behaviour: A Psychological Analysis", *Journal of Retailing*, **57**, fall, pp.4-24
- Jarboe, G. R. (1999), *The Marketing Research Project Manual*, 4th ed., Cincinnati, South-Western College Publishing
- Kasouf, C.J., Celuch, K.G. and Strieter, J.C. (1995), "Consumer Complaints as Market Intelligence: Orienting Context and Conceptual Framework", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, **8**, pp.59-68
- Kim, C., Kim, S., Im, S. and Shin, C. (2003), "The Effect of Attitude and Perception on Consumer Complaint Intentions", *Journal of Consumer Marketing*, **20**, (4), pp.352-371
- Kolodinsky, Jane (1993), "Complaints, Redress and Subsequent Purchases of Medical Services by Dissatisfied Customers", *Journal of Consumer Policy*, **16**, pp.193-214
- Kolodinsky, Jane and Aleong, John (1990), "An Integrated Model of Consumer Complaint Action Applied to Services: A Pilot Study", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, **5**, pp.36-44
- Landon, E. L. (1980), "The Direction of Consumer Complaint Research",

- Advances in Consumer Research*, **7**, pp.335-338
- Lawson, R., Tidwell, P., Rainbird, P., Loudon, D. and Della Bitta, A. (1996), *Consumer Behaviour in Australia and New Zealand*, Sydney, McGraw-Hill
- Liu, Raymond R. and McClure, Peter (2001), "Recognising Cross-Cultural Differences in Consumer Complaint Behaviour and Intentions: An Empirical Examination", *Journal of Consumer Marketing*, **18**, (1), pp.54-74
- Liu, Raymond R., Watkins, Harry S. and Yi, Youjae (1997), "Taxonomy of Consumer Complaint Behaviour: Replication and Extension", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, **10**, pp.92-103
- Malafi, T. N., Cini, M. A., Taub, S. L. and Bertolami, J. (1993), "Social Influence and the Decision to Complain: Investigations on the Role of Advice", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, **6**, pp.81-89
- Markus, H. and Kitayama, S. (1990), "Culture and the Self: Implications for Cognition, Emotion and Motivation", *Psychological Review*, **98**, (2), pp.224-253
- Miracle, Gordon E. and Nevitt, Terrance (1987), "Voluntary Regulation of Advertising: A Comparative Analysis of the UK and US", *D C Health*, Massachusetts
- Moyer, Mel S. (1984), "Characteristics of Consumer Complainants: Implications for Marketing and Public Policy", *Journal of Public Policy and Marketing*, pp.67-84
- Nicosia, Francesco M. and Mayer, Robert N. (1976), "Towards a Sociological Consumption", *Journal of Consumer Research*, **3**, pp.65-75
- Nyer, P.U. (2000), "An Investigation into Whether Complaining can Cause Increased Consumer Satisfaction", *Journal of Consumer Marketing*, **17**, (1), pp.9-17
- Oliver, Richard L. and Swan, John E. (1989), "Consumer Perceptions of Interpersonal Equity and Satisfaction in Transactions: A Field Survey Approach", *Journal of Marketing*, **53**, pp.21-35
- Owens, D.L. and Hausknecht, D.R. (1999), "The Effect of Simplifying the Complaint Process: A Field Experiment with the Better Business Bureau", *Journal of Consumer, Satisfaction, Dissatisfaction and Complaining Behavior*, **12**, pp.35-43
- Prakash, Ved (1991), "Intensity of Dissatisfaction and Consumer Complaint Behaviour", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, **4**, pp.110-122
- Resnik, Alan J. and Harmon, Robert R. (1983), "Consumer Complaints and Managerial Response: A Holistic Approach", *Journal of Marketing*, **47**, pp.86-97
- Richins, Marsha L. (1983), "An Analysis of Consumer Interaction Styles in

- the Marketplace", *Journal of Consumer Research*, **10**, pp.73-82
- Rogers, John C. and Williams, Terrell G. (1990), "Consumer Personal Values as Antecedents to Dyadic and Third Party Public Consumer Complaining Behaviour: An Exploratory Study", *Journal of Satisfaction, Dissatisfaction and Complaining Behaviour*, **3**, pp.71-81
- Schibrowsky, J.A. and Lapidus, R.S. (1994), "Gaining Competitive Advantage by Analyzing Aggregate Complaints", *Journal of Consumer Marketing*, **11**, (1), pp.15-26
- Sekaran, Uma (1992), *Research Methods for Business: A Skill Building Approach*, 2nd ed., New York, John Wiley and Sons
- Singh, Jagdip (1988), "Consumer Complaint Intentions and Behaviour: Definitional and Taxonomical Issues", *Journal of Marketing*, **52**, pp.93-107
- Singh, Jagdip (1990), "A Typology of Consumer Dissatisfaction Response Styles", *Journal of Retailing*, **66**, Spring, pp.57-99
- Singh, Jagdip and Howell, Roy D. (1985), "Consumer Complaining Behaviour: A Review and Prospectus", *Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, pp.41-49
- Singh, Jagdip and Wilkes, Robert E. (1996), "When Consumers Complain: A Path Analysis of the Key Triggers of Consumer Complaint Response Estimates", *Journal of the Academy of Marketing Science*, **24**, (4), pp.350-365
- Slama, Mark and Celuch, Kevin (1994), "Assertion and Attention to Social Comparison Information as Influences on Consumer Complaint Intentions", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, **7**
- Stephens, N. and Gwinner, K. P. (1998), "Why Don't Some People Complain? A Cognitive-Emotive Process Model of Consumer Complaint Behaviour", *The Academy of Marketing Science Journal*, **26**, (3), pp.172-189
- TARP (1986), *Consumer Complaint Handling in America: An Update Study*, Technical Assistance Research Program Institute for member agencies of the Consumer Affairs Council, United States Office of Consumer Affairs, Washington DC
- Tse, David K. (1990), "Attributing Performance Discrepancy: Dimensions, Causes and Effects", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, **3**, pp.105-111
- Tse, David K., Nicosia, Francesco M. and Wilton, Peter C. (1989), *Consumer Satisfaction as a Process: Its Rediscovery and Conceptualisation*, Working paper, Faculty of Commerce, University of British Columbia, Vancouver, B. C.
- Vezina, Richard and Nicosia, Francesco M. (1990), "Investigations of the Social Determinants of Consumer Satisfaction and Dissatisfaction", *Journal of Satisfaction, Dissatisfaction and Complaining Behaviour*, **3**, pp.36-41
- Volkov, Michael, Harker, Debra and Harker, Michael (2002), "Complaint

- Behaviour: A Study of the Differences between Complainants about Advertising in Australia and the Population at Large", *Journal of Consumer Marketing*, **19**, (4), pp.319-332
- Volkov, Michael, Harker, Debra and Harker, Michael (2002a), "Opinions about Advertising in Australia: A Study of Complainants", *Journal of Marketing Communications*, **8**, pp.101-114
- Volkov, Michael, Harker, Michael and Harker, Debra (2003), "Who Are They? A Profile of Complainants about Advertising in Australia", AMA Marketing Educators' Conference, Orlando, Florida, U.S.A., *Marketing Communication SIG, Conference Proceedings*, **14**, pp.267-273
- Woodruff, Robert B., Clemons, D. S., Schumann, D. W., Gardial, Sarah F. and Burns, M. J. (1991), "The Standards Issue in Consumer Satisfaction/Dissatisfaction Research: A Historical Perspective", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, **4**, pp.103-109
- Yi, Youjae (1990), "A Critical review of Consumer Satisfaction", *Review of Marketing*, pp.68-123

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