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Published version. This article was previously published in *Journal of Asian Business*, Vol. 13, No. 1 (1997): 74-84, and is reprinted with permission. Publisher link. © University of Michigan, Southeast Asia Business Program 1997.
Srinivas Durvasula was affiliated with the National University of Singapore at the time of publication.

Journal of Asian Business Volume 13 • Number 1 • 1997

Advertising Beliefs and Attitudes: Are Students and General Consumers Indeed Different?

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Studies of advertising beliefs and attitudes are crucial because these measures are shown to affect brand attitudes and purchase intentions. Previous studies in this area used either student or general consumers samples; no comparisons were made between the two groups. Therefore, it is not known whether and to what extent responses of student samples are likely to differ from those of general consumers. Differences would indicate that the two segments view advertising dissimilarly. However, by applying covariance structure analysis on a sample of students and a sample of general consumers from India, our study found no significant differences between them in their beliefs toward advertising in general, attitudes toward the institution of advertising, attitudes toward the instrument of advertising, or attitudes toward advertising in general.

For many years, the topic of advertising perceptions (i.e., beliefs and attitudes toward advertising) has received considerable attention in the advertising literature because these perceptions of advertising have been shown to affect attitude-toward-the-ad construct, and, in turn, consumers' brand attitudes and purchase intentions (MacKenzie and Lutz 1989; Muehling 1987). While a few of the previous studies in this area have focused on general consumers or business executives (cf. Semenik, Zhou, and Moore 1986; Tuncalp 1990), many others have explored students' attitudes toward advertising (cf. Andrews 1989; Lutz 1975; Muehling 1987).

More recent studies that examined the cross-national applicability of advertising attitude constructs and models also used student samples (Andrews, Durvasula, and Netemeyer 1994; Durvasula, Andrews, Lysonski, and Netemeyer 1993). While there is some criticism about the use of student samples in consumer behavior studies, they have been nonetheless considered appropriate for theory testing (Calder, Phillips, and Tybout 1981). Moreover, in cross-national studies where the use of comparable samples is of paramount concern

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(cf. Douglas and Craig 1983; Douglas, Morrin, and Craig 1994), the use of student samples was considered even more justifiable since they can be more easily matched across countries in terms of age, sex, study major, etc. (Durvasula et al. 1993).

The question, however, remains as to whether students are "real" people. Previous research provides mixed evidence. For example, on the issue of validity, Enis, Cox, and Stafford (1972) supported the use of students as subjects in consumer behavior studies when internal validity has priority, while Lynch (1982) suggested that holding a background factor constant (as in using students) does not necessarily threaten the external validity of a study. Beltramini (1983) implied that for the purpose of modeling underlying consumer behavior processes, students may serve as useful surrogates of the general population. Khera and Benson (1970) suggested that in certain situations students may be used as substitutes for general consumers. Also, Horland (1959) noted that an experimental study would achieve a greater success with student subjects because the situation would warrant greater receptivity, less perceptual distortions, and more control of external influences. Further, when comparing student and non-student samples, some studies found similarities in results (Clevenger, Lazier, and Clark 1965; Sheth 1970), while others found significant differences between the two samples (cf. Cunningham, Anderson, and Murphy 1973).

As none of these studies pertain to perceptions of advertising, it is not known whether and to what extent student samples' advertising beliefs and attitudes are different from those of general consumers. We address this issue in this paper by using covariance structure analysis to compare the advertising beliefs and attitudes of students and general consumers in India. If our study shows no significant differences, then it lends support to the findings of other studies in this area that used student samples. On the other hand, if advertising beliefs and attitudes of students are indeed different from general consumers, then results involving student samples must be applied with caution.

The discussion below is organized as follows. First, previous research on advertising beliefs and attitudes is reviewed. Second, the study methodology is presented. Next, the results of the study are provided. The paper concludes with a discussion and implications.

Advertising Beliefs and Attitudes

The term "perceptions of advertising" refers to beliefs and attitudes toward advertising. As discussed by Andrews, Durvasula,

and Netemeyer (1994), these beliefs and attitudes toward advertising are distinct, but together, they affect one's overall attitude-toward-advertising-in-general (or attitude-general). Attitude-general is one of the antecedents of attitude-toward-the-ad construct. This construct has a major impact in determining brand attitudes and purchase intentions (MacKenzie and Lutz 1989).

Bauer and Greyser (1968) provided several statements to measure beliefs toward advertising in general. They classified these beliefs into economic and social effects and showed that these two effects influenced attitude-general. In another study, Sandage and Leckenby (1980) proposed that attitude-general is also affected by consumers' attitude-toward-the-institution-of-advertising (or attitude-institution) (i.e., advertising's purpose or effects) and attitude-toward-the-instrument-of-advertising (or attitude-instrument) (i.e., advertising's methods and practices). They developed separate measurement scales for attitude-institution and attitude-instrument, while also providing empirical evidence supporting the psychometric soundness of the two scales. These beliefs, attitude-institution, attitude-instrument, and attitude-general, were the focus of subsequent studies, both nationally (Muehling 1987) and internationally (e.g., Durvasula et al. 1993). What is missing in this systematic examination of advertising measures is whether students differ from general consumers. The goal of this study is to fill this gap and extend the previous efforts by examining whether any differences exist between students and general consumers in their beliefs and attitudes toward advertising. Our expectation (i.e. hypothesis) is that these differences will be insignificant, since students are exposed to a similar level of intensity of ads as the general consumers and that there is no a priori reason why their attitudes should be vastly different.

Method

The data for this study were collected in India. People of India are highly family oriented and generally exhibit healthy respect for elders. They are somewhat traditional in their outlook and are relatively low on change orientation. They also tend to be "other directed" and social values still remain strong in spite of the modern forces of urbanization and industrialization. In terms of development, India is viewed as a developing economy, though it is still primarily a domestic marketing environment with considerable isolation from international markets. Some studies indicate that India's middle class is growing rapidly and will play a major role in consumption in the

near future. The per capita advertising expenditure in India is one of the lowest in the world amounting only to U.S. $ 0.90 per capita and 0.3 percent of the gross national product (GNP). In comparison, the ad expenditure in the United States is $ 499.20 per capita and represents 2.4 percent of the GNP. The per capita print and TV expenditures in India are also a minuscule $0.50 and $0.10 respectively (Survey of World Advertising Expenditures 1989). Further, television media is relatively new in India, and until recently, TV advertisements generally appeared either at the beginning or end of sponsored programs on the state owned station, Doordarshan.

Convenience samples of 89 students and 63 members of a cross-section of the general consumers provided responses to the survey in a major Indian city. Males represented 43 percent of the student sample and 59 percent of the general consumer sample. The mean age of the student sample was about 20 and the mean of the general consumer sample was about 38. Responses from students were obtained during classes at a University, whereas responses from a cross-section of the general consumers were obtained at shopping centers and business establishments. None of the subjects in either sample experienced any difficulty in completing the survey. Socio-economic profile of the two samples was judgmentally controlled for similarity in that all respondents were "middle class". Hence, age and occupation were the major differences between the two samples.

Beliefs toward advertising in general were measured by seven 7-point *likert* type statements (cf. Bauer and Greyser 1968). They included four statements measuring the social effects and three statements measuring the economic aspects of advertising. Table 2 shows these belief measures. Attitude-institution was measured by four seven-point semantic differential pairs, weak/strong, valuable/worthless, unnecessary/necessary, and important/unimportant. As compared to Sandage and Leckenby (1980), the good/bad measure was not used as it was a measure of attitude-general. Attitude-instrument was also measured by four seven-point semantic differential pairs, dirty/clean, dishonest/honest, insincere/sincere, and dangerous/safe. Finally, three seven-point scales, good/bad, unfavorable/favorable, and positive/negative served as measures of attitude-general (Muehling 1987). All of the measures used here are consistent with those employed in previous studies.

Results

Two types of analyses were performed on the data. First, the mean differences on advertising beliefs and attitudes were examined

for the student and general consumer samples. Covariance structure analysis via Lisrel VII (Joreskog and Sorbom 1989) was used for this purpose. This procedure is superior to MANOVA/ANOVA as it considers the measurement error when estimating the mean values. The procedure and the results are discussed below.

Metric Equivalence of Belief and Attitude Measures

Before comparing mean responses of the two samples metric equivalence of the belief and attitude measures must be examined. For metric equivalence to exist, the measures must exhibit similar psychometric properties (e.g., dimensionality and reliability) across the samples. Confirmatory factor analysis was used to examine these properties.

Metric equivalence was first examined for the seven belief measures. These belief measures were hypothesized to represent two dimensions, economic aspects (as measured by four belief statements) and social aspects (as measured by three belief statements). These two dimensions exhibit discriminant validity if it can be demonstrated that the hypothesized correlated two-factor model (i.e., economic and social aspects are distinct yet related) provides a better $\chi 2$ fit to the data in the two samples than the $\chi 2$ fit of the one factor model (where economic and social dimensions of beliefs are assumed to be inseparable) as well as the null model of no relationships among belief measures. For the student sample, the correlated model ($\chi 2$ (13)=13.31) provided a significantly better fit than the 1-factor model ($\chi 2$ (14)=19.95) and the null model of no relationships ($\chi 2$ (21)=50.32). For the general consumer sample, the two-factor correlated model provided a marginally better (but not significantly better) fit ($\chi 2$ (13)=17.38) over the 1-factor model ($\chi 2$ (14)=17.49) and a significantly better fit than the null model ($\chi 2$ (21)=76.50). Support for discriminant validity also exists if the confidence interval around the correlation between economic and social factors of beliefs does not contain the value of 1. While the correlations for both students and general consumers are less than 1, only the confidence interval of the correlation for the student sample does not contain the value of 1 ($p<.05$).

Next, an examination of the fit statistics of the two-factor model showed that for both the student and the general consumer samples, the goodness-of-fit index (GFI) and comparative fit index (CFI) were above 0.8 (where a fit index of 1 implies perfect fit) and are modest. In sum, the fit indices and other tests of discriminant validity provide partial support for the dimensionality of the hypothesized two-factor correlated model. The composite reliability estimates of the belief measures were then obtained for the hypothesized model. These

estimates were, however, mediocre for both students and general consumers, ranging from .34 to .56, when a value of .7 or above is recommended (Nunnally and Bernstein 1994). In sum, the dimensionality and reliability tests provide weak support for the hypothesized two-factor model for advertising beliefs. Hence, the belief items will be treated separately for mean comparison purposes.

The dimensionality and reliability analysis of the attitude measures was the next step. As described in the "Method" section, four items each were used to measure attitude-institution and attitude-instrument, while three items represented attitude-general. A covariance structure analysis of this total of eleven items would be difficult, as the sample size of both student and general public samples imposes limitations on the number of parameters to be estimated. When faced with relatively small samples, the use of partially disaggregated models is recommended. In a partially disaggregated model, the number of items per each attitude measure (or construct) is minimized by using composite indices of the original measures. Consistent with past studies on the application of this method (cf. Bagozzi and Heatherton 1994), we formed two composite (or summed) indices for attitude-institution (i.e., 'x1' representing weak/strong *and* unnecessary/necessary and 'x2' representing valuable/worthless and important/unimportant). Likewise, two composite indices represented attitude-instrument (i.e., 'x3' for dirty/clean and honest/dishonest *and* 'x4' for insincere/sincere and safe/dangerous). Attitude-general continued to be represented by the original three items (good/bad (x5), favorable/unfavorable (x6), and positive/negative (x7). This approach, while reducing the number of parameters to be estimated, facilitates a better interpretation of the results.

Table 1 shows the results of the dimensionality and reliability analysis. The hypothesized model is that the three attitude constructs, attitude-institution, attitude-instrument, and attitude-general are correlated yet distinct. This hypothesized model was compared to a one-factor model (where the three attitude constructs were assumed to be inseparable) and a null model that assumed no relationships among any of the measures of the three attitude constructs.

From Table 1, the $\chi 2$ fit shows that the three-factor correlated model has the lowest and significantly better ($p<.05$) $\chi 2$ than those of the 1-factor model and the null model for both students and general consumers. Next, the fit indices (GFI and CFI) of the three-factor correlated model are also reasonable (above .9) as compared to the fit of the perfect model of one. It is desirable to have small root mean square residual (RMSR) values, and this is the case for both students and general consumers. For each pair of attitude constructs, correlations were computed. These correlations and associated

Table 1
Psychometric Properties of Advertising Attitudes by Sample

Dimensionality and Discriminant Validity		Students (n=89)	General Public (n=63)
$\chi 2$ 3-factor correlated model (11 df.)		34.40 (p=.00)	7.52 (p=.74)
$\chi 2$ 1-factor model (14 df.)		68.93 (p=.00)	47.94 (p=.00)
$\chi 2$ null model (21 df.)		272.43 (p=.00)	476.62 (p=.00)
Fit Indices for the 3-Factor Correlated Model			
Goodness-of-fit Index (GFI)		.91	.97
Comparative Fit Index (CFI)		.91	1.00
Root Mean Square Residual (RMSR)		.07	.02
Composite Reliability Estimates			
Attitude-Institution		.73	.94
Attitude-Instrument		.70	.91
Attitude-General		.85	.90
Factor Loadings			
Attitude-Institution			
x1	{Weak/Strong Unnecessary/Necessary}	.74	.93
x2	{Valuable/Worthless, Important/Unimport}	.77	.94
Attitude-Instrument			
x3	{Dirty/Clean, Honest/Dishonest}	.81	.93
x4	{Insincere/Sincere, Safe/Dangerous}	.66	.89
Attitude-Toward-Advertising-In-General			
x5	Good/Bad	.92	.95
x6	Favorable/Unfavorable	.68	.69
x7	Positive/Negative	.81	.96

Is the 3-Factor Measurement Model for Attitude Constructs Same for Students and General Public?

Unconstrained Model	$\chi 2$ (22 df.)=42.12	GFI=0.97	CFI=0.97
Constrained Models			
LX same for 2 samples	$\chi 2$ (29 df.)=47.44	GFI=0.96	CFI=0.97
LX and PH same	$\chi 2$ (32 df.)=58.61	GFI=0.94	CFI=0.96
Fully constrained Model (LX, PH, TD) same	$\chi 2$ (39 df.)=139.00	GFI=0.60	CFI=0.86

standard errors (in parentheses) are as follows: between attitude-institution and attitude-instrument, .63 (.11) (for students) and .89 (.03) (for general consumers); between attitude-institution and attitude-general, .53 (.10) (students) and .85 (.04) (general consumers); and between attitude-instrument and attitude-general, .68 (.09) (students) and .92 (.02) (general consumers). As all of the three attitude measures represent advertising attitudes, correlations among them are fairly high, and as expected. However, none of the 95 percent confidence intervals around these correlations contained the value of one.

Table 1 also shows composite reliability estimates. Composite reliability estimates are similar to coefficient alpha values and can be computed from Lisrel VII output (Fornell and Larcker 1981). For the three attitude constructs, these estimates are generally above the recommended value of at least .7. Further, all of the factor loadings are also reasonable (above .7) and significant ($p<.05$). In sum, the fit indices, tests for dimensionality, and the composite reliability estimates support the hypothesized three-factor correlated model of advertising attitudes in the student and general consumer samples.

As a final check, a series of multiple group analyses were run to determine whether the pattern of factor loadings, correlations, and errors are invariant (i.e. same) for the two samples. These results are shown in the bottom portion of Table 1. It is evident that the $\chi 2$ fit of the model where factor loadings (LX), correlations (PH), and error variances (TD) were freely estimated for the two samples ($\chi 2$ (22)=42.12) is not significantly different ($p>.05$) from a model where factor loadings were constrained to be invariant for the two samples ($\chi 2$ (29)=47.44). When progressively imposing further constraints such as invariant correlations, and then, invariant error variances, the $\chi 2$ values of 58.61 (32 df.) and 139.00 (39 df.) became significantly different and progressively higher as compared to the first two models. Therefore, it is determined that only the factor loadings are the same for students and general consumers, providing partial support for the metric equivalence of the attitude measures for these two samples.

Mean Comparisons

The results described so far support the metric equivalence of the attitude measures and separate treatment of the belief items. While testing for mean differences the measurement model for the three advertising attitude constructs was constrained to be partially invariant (where the factor loadings were assumed to be the same for the two samples). Such partially invariant measurement models are acceptable and recommended when testing mean differences via Lisrel. As a result any significant mean differences reflect true differences between the two samples as opposed to an artifact of the

measurement. The test for examining mean differences is as follows. Using the standard procedure for mean comparisons, the factor loadings were constrained to be the same in the student and the general consumer samples. For estimation purposes one item (or composite index) of each advertising attitude measure was fixed at 1. While the means of belief and attitude measures were fixed in the student sample, they were freely estimated in the general consumer sample. Under these circumstances, the procedure generated mean differences between the two samples and the associated t-values. Results are displayed in Table 2.

It is clear from the table that the differences in mean advertising beliefs are not significantly different for the student and general consumer samples (t-probability values >.05). With the exception of attitude-instrument, mean differences are also not significant for the two samples ($p > .05$). Even for attitude institution (where $p < .05$), both students and general consumers have favorable attitude scores (above 4). Also, by chance alone, it is not unlikely to find such a significant difference for one measure when making several mean comparisons (e.g., 10 in this study). Further, a separate multivariate analysis of variance test showed that the vector of means was the same for the two samples (Wilk's λ = .89, F(10,141 df.)=1.75, p=.074). Therefore, it can be summarized that the student and general consumers have similar advertising beliefs and attitudes.

While the finding that student and general consumer samples have fairly similar advertising beliefs and attitudes is important, it is also noteworthy that both samples exhibit favorable attitudes toward the institution of advertising (i.e. purpose and effects of advertising), instrument of advertising (i.e. methods and practices of advertising), and advertising in general (i.e. overall attitude toward advertising in general), since the mean scores are generally around 5 or more on the 7-point attitude scales. As for belief measures, both students and general consumers believe that advertising is essential, presents a true picture of the product, and results in better products (mean scores above 4). The two sample groups also feel that advertising does not necessarily persuade, lead to lower prices or raise the standard of living (mean scores generally below 4). However, both students and general consumers agree that advertising often insults the intelligence of consumers (mean score above 4).

Discussion

Several national and cross-national studies have examined consumers' beliefs and attitudes toward advertising, as these

measures influence brand attitudes and purchase intentions. Many of these studies involved the use of student samples. Though some previous research examined differences between students and general consumers, the findings remain inconclusive. While some studies found support for using student samples, others found significant differences between students and general consumers. However, in the context of advertising perceptions, the question of whether students'

Table 2
Tests of Mean Differences Via Lisrel:
Beliefs and Attitudes Toward Advertising In General

Dependent Variables	Sample Means Students/Gen. Public (n=89)/(n=63)		Mean difference	t-value	Is mean dif significant at p<.05?
A. Beliefs					
1. Economic Issues					
Essential	6.30	6.33	.03	0.17	No
Lower Prices	3.19	3.11	-.08	0.25	No
Raises std. living	3.87	4.27	.40	1.24	No
Better products	4.51	4.79	.28	0.87	No
2. Social Issues					
Insults intelligence	4.01	4.46	.45	1.30	No
Often persuades	3.81	3.56	-.25	0.79	No
Presents true pic.	4.56	4.40	-.16	0.50	No
B. Attitudes					
Attitude-Institution	5.17	5.52	.35	0.24	No
Attitude-Instrument	4.56	5.07	.51	2.16	Yes
Attitude-toward-Advertising-In-General	5.61	5.58	-.03	-0.44	No

Notes: 1. The overall $\chi 2$ for the mean difference test is 384.74 (170 df., prob.=0.0).
2. The means of attitude-institution, attitude-instrument, and attitude toward advertising in general are scaled by LISREL to be in the same level of measurement as their respective indicators (i.e. scores from 1 to 7). To facilitate better interpretation we report the average scores. Therefore, for attitude-toward-advertising-in-general, the mean of student sample of 5.61 is the average of the three-item scale measuring this attitude.
3. Results of MANOVA confirm the above results. The multivariate test of significance showed that Wilk's λ =.89 with F-probability of .07. This implies that the vector of means for advertising beliefs and attitudes is not significantly different for students and gen consumers.

responses are likely to differ from those of the general consumers has not been addressed. Our research provides some answers to this question. Using a sample of students and a cross-section of general consumers and by applying covariance structure analysis, we compared the responses to widely used measures of beliefs and attitudes toward advertising. Results showed there were no significant differences between the two samples on any of the belief and attitude measures. Hence, these results provide some support to the earlier research in this area involving student samples.

While the student sample for this study was deliberately kept sufficiently apart on the age variable from the general consumer sample, such a close similarity in advertising perceptions of the two groups was somewhat surprising and requires comment. The typical Indian college student is not only economically dependent on his parents but also shares the consumption experience of his family to a large extent. His life style and interests are closely modeled on their patterns. Parents exercise considerable influence, supervision and control in molding his character and continuously impart family values of conformity and obedience to him. Institutions such as "arranged" marriages, joint families and pooled family income and assets are still thriving. Social class is predominantly ascribed by birth and family socialization persists well into the adulthood. Young adults treat parents and other significant elders in the social system as role models and respect their views and judgments. Dissent in this system of shared beliefs and values, life styles and experiences, is not only frowned upon but is even psychologically uncomfortable.

The students' lack of discretionary buying power apart from the family and common living experience makes even media exposure quite similar. No wonder their perceptions of advertising are no different from the general consumers. In fact, inter-generational differences in this cultural environment would generally be minimal due to so many shared aspects of life and living. Such similarities would probably be difficult to find in the West where self and individualism are widely accepted social norms. Future research in the West comparing students and general consumers on topics such as perceptions of advertising should answer this question. It may be hypothesized that beliefs and attitudes on advertising across stages of life cycle vary more significantly in the change-oriented and "detached" West than in the socially stable and "compliant" East. This finding also needs to be replicated in diverse cultures of the East such as Japanese, Chinese, and Muslim societies.

What does similarity in advertising perceptions between college students and general consumers mean for advertising practice? This study would suggest that segments such as students do not necessarily require customized communications and can be effectively influenced

through a more generalized advertising strategy. Though there is a growing emergence of youth media in India, particularly in print, such media can still deploy common themes and appeals, which makes the advertising development task both convenient and economical.

The finding that both students and general consumers share favorable attitudes toward advertising is equally helpful in advertising practice, since this will spill over to the advertised brands and products. Perhaps low advertising intensity in the Indian economy has helped to contain the alienation to the advertising institution and instrument that is widely prevalent in some Western countries. However, the widespread belief that advertising insults the intelligence points to greater care in advertising execution. Getting attention is relatively less difficult in low advertising expenditure countries like India. Resorting to undignified tactics to increase advertisement noticeability is not necessary.

This study provides additional support that at least in the realm of advertising perceptions, college students in India may be considered as "real people"; and thus, they are acceptable subjects in advertising and consumer behavior research. However, this is only one study, conducted in one country, and that too with a small convenience sample. For studies involving small samples the statistical power necessary to find significant differences among those samples is low. Hence, a further validation, using larger samples and performed in other countries, will certainly give more credence to findings of this study.

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