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MARKETING RESEARCH AND THE
REGIONAL LANGUAGES PROBLEM

by

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INDIAN INSTITUTE OF MANAGEMENT
AHMEDABAD

MARKETING RESEARCH AND THE REGIONAL LANGUAGES PROBLEM

Marketing research studies in India, particularly those based on consumer surveys, which extend data collection beyond a particular linguistic region, confront a serious problem of language comparability in the questionnaires if they are meant for administration to populations using different languages. Even otherwise, there is a common practice among marketing research and advertising agencies in this country to first develop questionnaires in the English language, with which most research executives in these organizations have greater flare and comfort, and if the study involves covering sampling units from non-English speaking strata, to translate these questionnaires into appropriate language versions. All the data is then generally pooled together without realizing that different language versions of the questionnaires often suffer from a peculiar problem of measurement differences arising out of translations into regional languages. The present paper provides an empirical test of this hypothesis.

Research Design

Consumer ratings of a print advertisement were used as a situation in this study. A print ad. is generally evaluated on seven different dimensions, namely, its vigour, sensuousness, uniqueness, credibility,

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information content, irritativeness (or its reverse, attractiveness) and personal relevance. A number of words or phrases can be used by the consumers to give their opinions of an advertisement on each of the above mentioned dimension. A total of 138 words (positive as well as negative) were used in the study to represent all the above seven dimensions. Each word or phrase in the list was translated into Gujarati language.* Extensive use of judges was made to make sure that translation into Gujarati was not merely a dictionary version but was also borne out by usage as being the closest to the original English version. The presentation order of the words in the two lists was randomized and a sample of 100 well-educated consumers in Ahmedabad, who knew both English and Gujarati well, were asked to rate the test ad. on a 5-point scale. The respondent was first asked to carefully examine all aspects of the ad. He was then requested to read the list of words one by one, and think how well each word described the advertisement he had just seen. His job then was to simply put a number from 1 to 5 against each word. He was asked to put 1 if he thought that the word did not fit the advertisement at all, 2 if the word fitted the ad. a little bit, 3 if the word fitted the ad. quite a bit, 4 if the word fitted the ad. well and 5 if the word fitted the ad. extremely well. While one-half of the respondents first rated the ad. on English words and then on Gujarati words, the reverse order was followed for the other half. Since order of words in the two lists was randomized, the ratings on a word in one language hopefully had no or little effect

*Gujarati translation of these words is excluded here but interested reader can request a copy from the authors.

on the ratings of the similar word in the other language. Brooke Bond's Bru ad. (which appeared in magazines like Femina) was used in this study as a test ad. Since the primary interest of the study was in comparing the ratings in the two languages on a single ad., the choice of BRU ad., was random and had no special significance. A few details of the ad. are provided here only to give the reader a flavour of the situation used.

The Test Ad.

The Bru ad., used in this research presents a group of people, both men and women, enjoying their coffee in paper cups marked BRU while watching a sport or some other entertainment event. The people are depicted in a hilarious mood and the ad. displays a Bru jar and a Refill pack. Besides the brand name Bru, the other prominent aspects of this ad. are the information that Bru is Instant blend of coffee and chicory, its use saves money and that Bru is India's largest selling instant. The headline reads as follows :

"Bru : its No. 1 in Taste and Flavour. Even its price is right."

Rest of the copy reads as under:

"To cal lovers of good coffee. Bru's unique taste has won the appreciation of coffee lovers throughout the country. Because Bru is just right - in taste, strength and price. Today Bru is easily the top-selling instant in South India, where coffee is a way of life. That makes Bru India's best selling Instant too. Make it your Instant. Today."

Data Analysis

The test ad. was rated on two language versions of each word by a sample of 100 consumers. The data was first subjected to an analysis of variance where ratings on each word in its two versions were tested for significance of differences between the means, the hypothesis being that two language versions of the same word on the same ad. should yield the same mean. The two ratings on each word were then correlated to examine the extent of correlations that result, the hypothesis being that to the extent the basic word is the same, the ratings should correlate highly. Finally, the distribution of ratings of each word in English and Gujarati were compared using K-S test for ranked categories* (Kolmogorov - Smirnov) to see if the two versions at least provide a similar distribution. For testing the significance of mean differences, correlations and frequency distribution differences, .05 level of significance was used. At this level, and for the degrees of freedom available, an F-value of 3.92 is necessary for statistical significance. For correlations, the critical value of r for significance at .05 level is .164. Similarly, value of K must be at least 1.22 for the two distributions to be significantly different.

Findings

The findings of the study are presented in Tables I to VII. The words have been distributed into one of the seven dimensions discussed earlier. The distribution among dimensions has been done

*See Ray Meddis, Statistical Handbook for Non-Statisticians, McGraw Hill Book Co (U.K) Ltd., 1975.

on judgement basis, though it could have been more scientifically done using factor analysis. Major findings on words under each dimension are discussed below:

Vigour: In all, 12 different words were used in the study which were reflective of vigour (or lack thereof) of an ad. (Table I). The test ad. yielded an average rating of 1.83 in English version and 1.90 in Gujarati version. Four of the words, namely, defensive, passive, stimulating and thrilling yielded significantly different means. The average correlation between the two versions of these words was .29 with two words, namely, forceful and stimulating providing correlations which were not even significant. A comparison of frequency distribution of the ratings in two languages indicated that distribution for three of these words, namely, passive, stimulating and thrilling were significantly different. It is thus clear that five of the words under the dimension vigour, when translated into a regional language, did not seem to be providing a measure of the same thing on one or more criteria.

Sensuousness: The dimension of sensuousness had as many as 34 different words (Table II). The overall mean ratings of these words in the two languages were almost the same (1.91 & 1.96) but there were major differences in the mean ratings of specific words. The words like appealing, frightening, glamorous, heartwarming, homely, indifferent, pleasant, pretty, sweet, tense and wonderful yielded a significantly

different mean rating in the two languages. Similarly correlations between two versions of the same word for phrases like absorbing, appealing, dreamy, depressive, glamorous, homely, indifferent, sensible and tense did not reach the significance level. The average correlation for all the words included in this dimension was .30. Even the distributions for 11 of these words, namely, appealing, frightening, heartwarming, homely, indifferent, refreshing, pretty, serious, sweet, tense and wonderful were significantly different. Again, 17 of the 34 words under this dimension did not seem to be providing the same measure.

Uniqueness: A total of 21 words (Table III) were used to represent the dimension of uniqueness (or lack thereof). The overall mean ratings of these words in English and Gujarati respectively were 1.97 and 1.93. The mean overall correlation was .32. Five of these words, namely, classic, different, peculiar, remarkable and unique yielded significantly different means. The correlations of three words under this dimension, namely, different, imaginative and remarkable did not reach the significance level. Similarly distribution of ratings on six words, namely, classic, different, peculiar, radical, remarkable and unique were significantly different. In all, 7 words in this dimension, though relatively lesser than words under other dimensions, did not seem to be providing the same measure.

Credibility: Every advertiser desires his ad. to be as credible as possible. In all, 17 different words were included to represent credibility dimension (Table IV). The overall mean ratings on these words in English and Gujarati were 2.07 and 2.03, respectively. The average correlation of the words between the two languages was .24. Four of these words, namely, genuine, rational, superficial and trustworthy provided significantly different means. Again, for six of the words, namely, conflicting, false, responsible, rational, superficial and suspicious, the correlations between the ratings in the two languages did not reach significance level. Similarly, distribution of ratings in two languages on five words, namely, genuine, responsible, rational, superficial, and truthful, turned out to be significantly different. In all, thus, there were 9 words under this dimension where two versions did not appear to be providing the same measure, differences on some of them being on more than one criteria.

Information Content: Another important dimension of an ad. is its information content, which in this study was represented by 8 different words (Table V). The overall average ratings in English and Gujarati were 2.28 and 2.14, respectively. The overall average correlation was .29. Three of these words, clear, explanatory and factual provided significantly different means. Similarly, for the word descriptive, the correlation between ratings in the two languages did not reach significance level. Also distribution of ratings in English and Gujarati

of three words, namely, clear, explanatory and factual turned out to be significantly different. Thus, half of the words under this dimension appeared to be measuring different things on one or more criteria.

Irritativeness: Every advertiser wants to avoid irritating and annoying ads., though a large number of ads. that appear often evoke such responses. As many as 26 different words were included in this study to represent various aspects of this dimension (Table VI). The overall average ratings of these words in English and Gujarati were 1.31 and 1.30, respectively. The overall average correlation was .19. Only three of these words, namely, funny, heavy and lousy yielded significantly different means. However, correlations of a relatively larger number of words (16) under this dimension did not reach significance level. These words were awful, comical, funny, heavy, insulting, irritating, lousy, negative, odd, rude, ridiculous, rubbish, stupid, silly, tiring and vague. Also the distribution of ratings in the two languages of five words, namely, embarrassing, funny, heavy, lousy and stupid were significantly different. Thus, in all, as many as 17 words under this dimension seemed to be measuring different things on one or more criteria.

Personal Relevance: This dimension measures the degree to which an advertisement's overall message is considered by the audience as relevant to their activities, interests and needs. In all, 20

different words were included to represent the dimension (Table VII). The overall average ratings of these words in English and Gujarati were 2.34 and 2.25 respectively. The average correlation of these words between the ratings in the two languages was .35. Five of these words, namely, abstract, helpful, influential, satisfying and useful resulted in significantly different means in the two languages. The correlations of ratings of the words under this dimension between the two languages were much better and only two words, influential and meaningful, did not yield significant correlations. Also distribution of ratings in the two languages on five of these words, namely, abstract, influential, satisfying, suitable and useful were significantly different. Thus, in all, 7 out of 20 words under this dimension failed to produce comparable results in ratings on the two languages and translated version appeared to measure somewhat different things.

Conclusions

The study used three different criteria, namely, strength of correlations, equality of means and comparability of distributions to examine whether ratings given by the same set of consumers to the same advertisement using the same scale and on the same words but employing English and Gujarati versions of the words produce similar results. Results are quite conclusive and indicate that as many as 67 of the 138 words used in the study to rate the ad. failed to produce similar ratings at least on one of the three criteria when ratings in Gujarati version are compared with English version. Some of the words like

stimulating, appealing, homely, different, remarkable, genuine, funny, lousy and influential failed to yield comparable results on any one of the three criteria. Besides identifying good and bad words in terms of their translation worthiness in a regional language to yield comparable results, the study clearly indicates that each word has its own cultural connotation and market researcher has to guard against the common belief that a translated version yields similar results as the word or phrase from which it was translated. The "language" effect seems to seriously affect the data collection process in market surveys and unless adequate care is taken in translations to make sure that resulting data would be comparable, a confounding in the results may occur without the researcher realizing the magnitude of such confounding. The problem is quite serious in a country like India where there are a large number of languages and most nationwide studies do have to confront such a problem. A serious pretesting of the translated versions on comparable samples and a prior analysis of pretest data to check on comparability are essential to minimise the effects of language confounding. To the extent many words or phrases have alternative choices in the regional languages, extensive use of the play-back technique should be made by asking respondents to tell in the regional language what they understood from a particular word or phrase in English. Such a process can help spot the word or phrase which by usage comes closest to the English version and should be the choice from among various alternatives possible.

Table I

VIGOUR

Word	English Mean (Std.Devn)	Gujarati Mean (Std.Devn.)	F value	r value	K value
Aggressive	1.35 (.76)	1.46 (.95)	.82	.18	.5
Clever	2.12 (1.17)	2.13 (1.13)	.004	.31	.2
Dramatic	1.82 (1.20)	1.87 (1.14)	.09	.29	.5
Defensive*	1.43 (.92)	1.74 (1.19)	4.21	.60	1.1
Forceful [®]	1.83 (1.00)	2.07 (1.24)	2.28	.02	.5
Lifeless	1.32 (.80)	1.44 (.95)	.94	.25	.4
Lively	2.46 (1.21)	2.54 (1.45)	.18	.40	.9
Passive*+	1.47 (.97)	1.20 (.74)	4.91	.38	1.5
Polite	2.15 (1.18)	2.16 (1.24)	.003	.26	.4
Powerful	2.11 (1.05)	2.42 (1.26)	3.55	.35	1.1
Stimulating*+ [®]	2.31 (1.53)	1.64 (1.27)	11.38	.08	1.9
Thrilling*+	1.56 (.91)	2.09 (1.19)	12.48	.30	2.5

* Significant F value at .05 level

+ Significant K value at .05 level

[®] Words where correlations between two languages are not significant

(The symbols have been similarly used in rest of the Tables)

Table II
SENSUOUSNESS

Word	English Mean (Std.Devn.)	Gujarati Mean (Std.Devn.)	F value	r value	K value
Absorbing [@]	2.06 (1.20)	2.17 (1.20)	.42	.08	.5
Apologetic	1.14 (.59)	1.21 (.70)	.59	.17	.3
Artistic	1.91 (1.03)	2.12 (1.12)	1.91	.34	1.0
Appealing*+ [@]	2.32 (1.18)	1.27 (.76)	55.27	.03	5.0
Charming	2.34 (1.20)	2.44 (1.25)	.34	.48	.4
Dreamy [@]	1.74 (1.19)	2.02 (1.32)	2.49	.04	1.1
Delightful	2.41 (1.24)	2.57 (1.39)	.74	.29	.8
Depressive [@]	1.25 (.63)	1.40 (.99)	1.63	.08	.7
Emotional	1.86 (1.05)	1.96 (1.14)	.34	.27	.6
Eye catching	2.47 (1.29)	2.56 (1.40)	.89	.41	1.2
Feminine	1.37 (.96)	1.57 (1.16)	1.77	.47	.6
Frightening*+	1.10 (.58)	1.44 (.10)	7.45	.31	1.8
Glamorous* [@]	2.03 (1.20)	2.18 (1.32)	7.76	.12	.3
Gentle	2.17 (1.05)	1.98 (1.04)	1.64	.31	.6
Heart warming*+	1.97 (1.11)	1.58 (.98)	6.93	.26	2.1
Homely*+ [@]	1.98 (1.14)	1.42 (1.08)	12.71	.13	1.9
Intelligent	2.08 (1.10)	2.13 (1.3)	.10	.50	.3
Indifferent*+ [@]	1.46 (1.00)	2.10 (1.34)	14.08	.1	3.2
Lovely	2.44 (1.23)	2.45 (1.47)	.003	.58	.9
Natural	2.45 (1.12)	2.57 (1.25)	.51	.22	.7
Pleasant*	2.57 (1.17)	2.19 (1.21)	4.86	.36	1.2
Pretty*+	2.07 (1.13)	2.42 (1.22)	4.14	.52	1.5
Refreshing+	2.69 (1.37)	2.33 (1.36)	3.47	.34	1.5
Serious+	1.40 (.91)	1.60 (.93)	2.36	.45	1.6
Snobbish	1.21 (.83)	1.23 (.87)	.03	.21	.5
Sensible [@]	2.15 (.96)	2.15 (1.15)	0.0	.07	.9
Soothing	1.71 (1.04)	1.90 (1.28)	1.34	.18	.7
Sexy	1.45 (.96)	1.45 (1.04)	0.0	.34	.5
Sensational	1.78 (1.00)	1.94 (1.24)	1.01	.50	1.1
Sweet*+	2.14 (1.09)	1.39 (1.15)	22.29	.18	3.1
Tempting	2.02 (1.10)	2.25 (1.23)	1.93	.23	.8
Touching	1.76 (.95)	1.63 (1.07)	.82	.17	.7
Tense*+ [@]	1.10 (.66)	1.79 (1.19)	25.67	.05	3.0
Wonderful*+	2.04 (1.14)	2.88 (1.27)	24.22	.31	2.8

Table III

UNIQUENESS

Word	English Mean (Std.Devn.)	Gujarati Mean (Std.Devn.)	F value	r value	K value
Arouses					
curiosity	2.07 (1.12)	2.38 (1.24)	3.45	.40	.6
Classic*+	1.67 (1.02)	2.04 (1.43)	4.46	.22	1.4
Common	2.56 (1.40)	2.51 (1.42)	.06	.41	.7
Different*+@	1.96 (1.23)	1.29 (.79)	20.92	.12	2.6
Exceptional	1.79 (1.00)	1.92 (1.28)	.63	.28	.7
Familiar	2.94 (1.25)	2.64 (1.24)	2.89	.28	1.2
General	2.45 (1.24)	2.54 (1.28)	.25	.28	.5
Imaginative@	2.9 (1.20)	2.21 (1.08)	.02	.13	.9
Imitation	1.42 (.89)	1.42 (.87)	0.0	.45	.2
Novel	1.73 (.96)	1.66 (1.14)	.22	.35	1.1
New	2.10 (1.17)	2.25 (1.34)	.71	.48	.6
Old fashioned	1.58 (1.02)	1.49 (.98)	.41	.28	.5
Peculiar*+	1.77 (1.03)	2.23 (1.25)	8.01	.24	1.9
Professional	2.90 (1.51)	3.16 (1.38)	1.62	.50	.9
Radical+	1.23 (.74)	1.08 (.85)	1.78	.20	1.5
Remarkable*+@	2.08 (1.08)	1.35 (1.26)	19.39	.10	3.4
Rare	1.42 (.82)	1.33 (.89)	.56	.21	.8
Strange	1.35 (.86)	1.32 (.83)	.07	.16	.3
Simple	2.73 (1.29)	2.70 (1.33)	.03	.32	.4
Unequaled	1.46 (1.05)	1.65 (1.21)	1.41	.19	1.1
Unique*+	1.78 (1.09)	1.42 (1.00)	5.95	.30	2.0

Table IV

CREDIBLE

Word	English Mean (Std.Devn.)	Gujarati Mean (Std.Devn.)	F value	r value	K value
Agreeable	2.37 (1.04)	2.25 (1.18)	.59	.39	1.1
Assuring	2.50 (1.26)	2.73 (1.29)	1.62	.27	.8
Bogus	1.34 (.98)	1.29 (.73)	.17	.29	.4
Conflicting@	1.21 (.70)	1.17 (.73)	.16	.03	.4
False@	1.45 (1.04)	1.25 (.76)	2.42	.09	.8
Genuine*+	2.12 (1.03)	2.47 (1.16)	5.11	.17	1.5
Honest	2.32 (1.08)	2.23 (1.11)	.34	.29	.8
Logical	2.31 (1.35)	2.17 (1.34)	.54	.31	.4
Reliable	2.60 (1.06)	2.69 (1.17)	.32	.39	.4
Responsible@+	2.11 (1.10)	1.93 (1.13)	1.30	.37	1.3
Rational*+@	1.95 (1.06)	1.56 (1.26)	5.63	.08	2.0
Reasonable	2.68 (1.14)	2.66 (1.22)	.01	.40	.4
Realistic	2.56 (1.21)	2.59 (1.18)	.03	.22	.5
Superficial*+@	1.68 (1.13)	1.14 (.85)	14.59	.11	2.3
Suspicious@	1.28 (.78)	1.29 (.78)	.008	.15	.4
Truthful+	2.31 (1.14)	2.27 (1.31)	.05	.36	1.4
Trustworthy*	2.38 (1.25)	2.79 (1.30)	5.13	.22	1.2

Table V
INFORMATION CONTENT

Word	English		Gujarati		F value	r value	K value
	Mean	(Std.Devn.)	Mean	(Std.Devn.)			
Crowded	2.52	(1.52)	2.55	(1.67)	.02	.38	.8
Clear*+	3.49	(1.25)	3.06	(1.41)	5.19	.27	1.5
Confusing	1.18	(.59)	1.13	(.85)	.23	.29	1.1
Descriptive@	2.39	(1.20)	2.46	(1.18)	.17	.13	.8
Educative	2.00	(1.11)	1.96	(1.10)	.07	.33	.8
Explanatory*+	2.48	(1.28)	1.91	(1.20)	10.54	.32	2.1
Factual*+	2.14	(1.31)	2.67	(1.30)	8.22	.41	1.8
Repetitive	2.04	(1.28)	1.95	(1.47)	.21	.19	1.1

Table VI
IRRITATIVENESS

Word	English		Gujarati		F value	r value	K value
	Mean	(Std.Devn.)	Mean	(Std.Devn.)			
Annoying	1.15	(.64)	1.27	(.78)	1.42	.30	.5
Awful ¹⁾	1.36	(.95)	1.15	(.61)	3.47	.08	1.2
Boastful	1.89	(1.36)	1.55	(1.19)	3.55	.33	1.2
Comical ²⁾	1.41	(.83)	1.53	(1.16)	.71	.02	.9
Crazy	1.50	(1.09)	1.69	(1.10)	1.51	.25	1.0
Dull	1.48	(1.01)	1.50	(1.04)	.02	.54	.3
Embarrassing+	1.31	(.77)	1.20	(.85)	.91	.26	1.5
Funny*+@	1.50	(.97)	2.03	(1.11)	13.00	.11	2.8
Foolish	1.29	(.98)	1.23	(.80)	.23	.47	.3
Heavy*+@	1.25	(.82)	1.81	(1.08)	17.05	.09	3.6
Horrible	1.18	(.64)	1.15	(.52)	.13	.25	.2
Insulting@	1.20	(.72)	1.08	(.49)	1.89	.02	.6
Intolerable	1.23	(.74)	1.14	(.70)	.79	.37	.4
Irritating@	1.36	(.90)	1.16	(.69)	3.08	.15	.8
Lousy*+@	1.44	(1.08)	1.05	(.49)	10.96	.27	2.0
Negative@	1.14	(.51)	1.13	(.72)	.01	.09	.4
Non-sensical	1.18	(.70)	1.33	(1.12)	1.29	.37	.6
Offensive	1.23	(.76)	1.17	(.68)	.34	.27	.4
Odd@	1.49	(1.02)	1.32	(.71)	2.10	.14	.8
Rude@	1.9	(.54)	1.13	(.49)	.43	.04	.4
Ridiculous ³⁾	1.28	(.84)	1.44	(.89)	1.70	.05	.9
Rubbish@	1.20	(.77)	1.22	(.79)	.03	.14	.1
Stupid+@	1.19	(.83)	1.1	(.85)	.58	.07	1.3
Silly@	1.29	(.84)	1.21	(.67)	.55	.14	.3
Tiring@	1.19	(.69)	1.27	(.63)	.73	.11	.5
Vague@	1.16	(.68)	1.25	(.64)	.93	.14	.6

Table VII

PERSONAL RELEVANCE

Word	English Mean (Std.Devn.)		Gujarati Mean (std.Devn.)		F value	r value	K value
Abstract*+	1.26	(.94)	1.69	(1.19)	8.15	.45	1.9
Appropriate	2.85	(1.14)	2.93	(1.08)	.26	.24	.8
Enjoyable	2.59	(1.16)	2.57	(1.30)	.01	.47	.6
Helpful*	2.18	(1.10)	2.49	(1.16)	4.11	.32	1.0
In good taste	2.73	(1.14)	2.73	(1.38)	0.0	.36	1.1
Influential*+@	2.13	(1.13)	1.64	(1.13)	9.42	.11	2.4
Inadequate	1.59	(1.12)	1.43	(.86)	1.29	.23	.6
Impressive	2.72	(1.09)	2.44	(1.15)	3.12	.46	1.1
Makes me want to buy	2.54	(1.34)	2.60	(1.32)	.10	.35	.5
Meaningful ³	2.91	(1.14)	2.85	(1.24)	.13	.11	.6
Not for me	1.84	(1.40)	1.79	(1.51)	.06	.52	.7
Noteworthy	2.01	(1.13)	2.23	(1.14)	1.87	.22	1.2
Pointless	1.38	(.86)	1.41	(1.06)	.05	.79	.5
Promising	2.14	(1.09)	2.10	(1.23)	.06	.22	.6
Superb	2.16	(1.28)	2.32	(1.40)	.71	.53	.5
Satisfying*+	2.43	(1.06)	2.84	(1.20)	6.61	.29	1.3
Suitable+	2.68	(1.14)	2.97	(1.04)	3.52	.33	1.5
Useful*+	2.77	(1.32)	2.22	(1.23)	9.33	.35	1.5
Worth remembering	2.42	(1.21)	2.49	(1.26)	.16	.26	.4
Easy to understand	3.39	(1.2)	3.26	(1.45)	.48	.40	1.1