

PSEUDO-SCIENTIFIC JARGONS AND ADVERTISING PERSUASIVENESS SHAMPOOS

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Description of the Study & the Methodology

To the best of my knowledge, no study on the effectiveness of using pseudo scientific jargons has been carried out in the Pakistani context. This paper presents the findings of a controlled study on the persuasion effectiveness of the use of pseudo-scientific jargon in advertising. I study the consumer reactions to the use of pseudo-scientific jargons in advertising and explicitly examine the advertisement persuasiveness in terms of consumers' purchase intention.

According to Philip Kotler, purchase the intention is said to emerge when the products' perceived benefits are accepted to fulfill the needs of the consumer. The consumer will buy the product if he thinks that the product's benefits will meet his required needs.

The study was carried out in late 2006. sixty volunteers were selected at a business school with equal distribution of management sciences, computer sciences and engineering disciplines. Fifteen were post-graduate level students and forty-five were under-graduate students. More female students were selected because they represent the larger market for shampoos in Pakistan, ___ the product selected for analysis.

Shampoo was selected since it is not a technical product and is not expected to benefit from scientific terminology. Earlier research has shown that shampoo is almost universally used among university students in the South Asian region.

A fictitious brand name of the shampoo, “Luster”, was created to be featured in the advertisement. Two one page, black and white print advertisements featuring the “Luster” brand of the shampoo were developed. This advertisement was modeled the advertisements for existing real brands. The advertisement included a black and white photograph of a woman using with bountiful hair. Some common problems of hair, like lack of bounce and manageability were highlighted.

Both the advertisements featured straight forward rational solutions to these common hair problems However, the second advertisement featured a fictitious hair nourishing agent “ chemical-plus” which was supposed to solve the mentioned hair problems very effectively.

Apart from the “chemical-plus” factor, the two advertisements were exactly identical in all other respects. A fictitious shampoo brand was used on purpose, to remove the effects of prior experience and attitudes towards existing brands and their advertisements.

The respondents were asked to look at the given advertisements and were then asked to fill out the questionnaire concerning the product and the advertisement. To make the product appear to come from a real company, the subjects were given a short description about the new brand. The subjects were allowed to look at the advertisement at their own pace, but no interaction was allowed between participants. They were also asked to read the advertisement as if they were seeing it in a magazine or in a newspaper. After they studied the advertisement they were asked to respond to the questionnaire.

The students were randomly divided into two groups of thirty students each. The first group who were shown a copy of the advertisement minus the “ α - Chemical-Plus” factor was the Control Group. The other was the Treatment Group and was shown a copy of the advertisement with the “ α - Chemical-Plus” factor.

The Questionnaire

Name: _____

Program: _____

Age: _____

Gender: Male Female

Previous Education: Intermediate A-Levels

Residence: Clifton / Defence / MACHS / PECHS (very expensive areas)
 North Nazimabad / Gulshan-e-Iqbal / Gulistan-e-Jauhar (medium expensive areas)

Nazimabad / Malir / Liaquatabad / Korangi / Landhi (less expensive areas)

Others

Q1. Are you a regular shampoo user?

- Yes
- No

Q2. What brand of shampoo do you currently use?

- Sunsilk
- Pentene
- Head & Shoulders
- Pert Plus
- Herbal Essences
- Others

Q3. How many shampoo brands have you used in the last three years?

- One
- Two – Three
- Four – Five
- More

Q4. How many shampoos do you currently have on your bathroom shelf? Remember that you may be sharing your shelf with others. Consider all.

- One
- Two
- More

Q5. In your opinion, what is the most important attribute of a shampoo?

- Smell
- Brand Name
- Moisturizer
- Variants

Q6. Are you easily swayed by advertisements of shampoos?

- Yes
- No

Q7. When buying a shampoo, do you check the ingredients at the back?

- Yes
- No

Q8. How do you find the Actigel advertisement?

- Very Attractive
- Attractive
- Indifferent
- Unattractive
- Very Unattractive

Q9. Which part of this advertisement did you first notice?

- Headline
- Photograph
- Tag line below the photograph
- Body of Message
- Ending Line

Q10. Which part of this advertisement did you read twice?

- Headline
- Tag line below the photograph
- Body of Message
- Scientific Evidence
- Ending Line

Q11. Which part of this advertising did you find relatively most convincing?

- Headline
- Photograph
- Tag line below the photograph
- Body of Message
- Scientific Evidence
- Ending Line

Q12. Did the tag line represent a benefit that can fulfil your need?

- Yes
- No

Q13. Does the model's hair represent the look that you are craving for?

- Yes
- No

Q14. On the look of it, do you think that if all that is said in this advertisement is true; then, Actigel will deliver the desired benefits to you?

- Yes

No

Demographic information was considered important because it has a strong relationship with purchase intention. The first seven questions deal with psychographics which is the standard analysis criteria for all consumer behavior research. Here I am interested in analyzing the level of involvement with a product. The last seven questions deal with the advertisement directly. Questions 8 to 11 analyze whether or not the advertisement itself was an effective one. Questions 12 to 14 calculate the purchase intention.

Age

The premise is that the people who are more mature and more educated are less likely to respond to an unknown variable like “Chemical-Plus”. They would probably like to have more details about this mystery ingredient. As that information is not provided; they are expected to discard the impact of the “Chemical-Plus”.

Gender

Men are supposed to be less fussy about their hair. It is supposed that they will fall for the “Chemical-Plus” factor with greater ease.

Previous Education

People with A-Levels background are expected to be less open to such terminologies and are expected to ask for more evidence about the mysterious “Chemical-Plus” ingredient.

Area of Residence

Area of residence is a strong factor in designing the advertising message. People of some areas are more susceptible to jargons influence than people of other areas. It is expected that people in posh residential areas, with more disposable income and with access to more hair care facilities may be more willing to take this risk of using a mysterious new ingredient “Chemical-Plus”.

Question 1 & 2

- 1) Are you a regular shampoo user?
- 2) What brand of shampoo do you currently use?

These questions are used to find out about current usage. This adds credibility to the questionnaire.

Question 3,4 & 6

- 3) How many shampoo brands have you used in the last three years?
- 4) How many shampoos do you currently have on your bathroom shelf?
- 6) Are you easily swayed by advertisements of shampoos?

They seek to find out whether hair care products are low involvement or high involvement products for the consumer. The premise is that the high-involvement consumer will not be willing to change his brand of shampoo to Actigel based on a mystery ingredient “Chemical-Plus”.

Question 5

In your opinion, what is the most important attribute of a shampoo?

This question was asked to find out the level of sophistication of the consumer regarding this product. The premise is that more sophisticated consumers all ignore the “Chemical-Plus” factor. The alternative could be that the “me-too” sophisticated consumer would jump onto the “Chemical-Plus” enriched shampoo because it satisfies his supposed sophistication without making him go through any painful research himself.

Question 7

When buying a shampoo, do you check the ingredients at the back?

The premise is that a prudent buyer would apparently not fall for magical solutions like “Chemical-Plus”. He would require more evidence.

Question 8

How do you find the Actigel advertisement?

This question judges the immediate appeal of the advertisement. A poorly constructed advertisement would not be able to judge the impact of any factor as the consumer would be put off by it. This question checks if the advertisement made is adequate to judge the impact of the introduction of “Chemical-Plus” on overall persuasiveness of the advertisement.

Question 9, 10 & 11

- 9) Which part of this advertisement did you first notice?
- 10) Which part of this advertisement did you read twice?
- Q11) Which part of this advertising did you find relatively most convincing?

These questions check the immediate, recurring and terminal foci of consumers' attention. Information could be helpful in future studies. If current locations of "Chemical-Plus" are found to be unimportant to the consumer, the "Chemical-Plus" factor may be placed in more important parts of the advertisement in future for better results.

Question 12, 13 & 14

Q12) Did the tag line represent a benefit that can fulfill your need?

Q13) Does the model's hair represent the look that you are craving for?

Q14) on the look of it, do you think that if all that is said in this advertisement is true; then, Luster will deliver the desired benefits to you?

These questions find out the purchase intention of the consumer. Affirmative answers would show that the consumer may buy the product if it becomes available. If both control and treatment groups return different answers we presume that this may be attributed to the "Chemical-Plus" factor.

Findings

The last three questions hold the key to this study. They directly measure the purchase intention of the consumer. The analyses of the answers to other questions measure the impact of presumed determinants on the pseudo-scientific jargon impact. Analysis has been done on Microsoft Excel, version 2003, with the use of Data Filter, Statistical & Pivot Table Tools.

Gender & Pseudo-Scientific Jargon

Table 1: Gender Distribution

Gender	Frequency
Male	11
Female	19

Table 2: Gender Distribution Treatment Group

Gender	Frequency
Male	11
Female	19

Transmission of Perceived Benefits: Message, Gender

Table 3: Responses to Question 12 (Control Group)

Response	Frequency
Female Responses in Affirmative	10
Female Responses in Negative	9
Male Responses in Affirmative	4
Male Responses in Negative	7

Table 4: Response to Q12 (Treatment Group)

Response	Frequency
Female Responses in Affirmative	10
Female Responses in Negative	9
Male Responses in Affirmative	3
Male Responses in Negative	8

The number of male and female respondents was exactly the same in both groups. There is no change in the female respondent's answers after the inclusion of PSJ. The male respondent's answers show slight change of one respondent. This can be attributed to personal choice. So, there is no impact of PSJ on the gender based interpretation of the advertising message.

Visual Representation: Gender & PSJ

Table 5: Responses to Q13 (Control Group)

Response	Frequency
Female Responses in Affirmative	12
Female Responses in Negative	7
Male Responses in Affirmative	8
Male Responses in Negative	3

Table 6: Responses to Q13 (Treatment Group)

Response	Frequency
Female Responses in Affirmative	16
Female Responses in Negative	3
Male Responses in Affirmative	6
Male Responses in Negative	5

The visual appeal of the advertisement (represented by the model's hair) has increased for the female respondents by 33 percent. This is a significant change and may help us deduce that the visual appeal was increased by the PSJ factor for female respondents. The surprising feature is that the affirmative answers for male respondents

fell by 50 percent which may indicate that the model's picture was all that was required to create visual appeal and the scientific gibberish (PSJ) has decreased the appeal of advertisement for male respondents.

Purchase Intention: Gender & PSJ
Table 7: Responses to Q14 (Control Group)

Response	Frequency
Female Responses in Affirmative	7
Female Responses in Negative	12
Male Responses in Affirmative	6
Male Responses in Negative	5

Table 8: Responses to Q14 (Treatment Group)

Response	Frequency
Female Responses in Affirmative	13
Female Responses in Negative	6
Male Responses in Affirmative	5
Male Responses in Negative	6

The female consumers responded to the PSJ factor in a positive manner. The purchase intent increased by 180% and made an ineffective advertisement an effective one. The response of male respondents is inconclusive because no significant change is observed. This may mean that male consumers are relatively inert towards PSJ.

Previous Education & (PSJ)
Table 9: Education Distribution (Control Group)

Previous Education	Frequency
Intermediate	21
A-Levels	9

Table 10: Education Distribution (Treatment Group)

Previous Education	Frequency
Intermediate	23
A-Levels	7

Table 11: Response to Q14 (Control Group)

Response	Frequency
A Levels' Responses in Affirmative	4
A Levels' Responses in Negative	5
Intermediates' Responses in Affirmative	9
Intermediates' Responses in Negative	12

Table 12: Response to Q14 (Treatment Group)

Response	Frequency
A Levels' Responses in Affirmative	4
A Levels' Responses in Negative	3
Intermediates' Responses in Affirmative	14
Intermediates' Responses in Negative	9

Table 17: Responses to Q14 (Treatment Group)

The introduction of PSJ has increased the purchase intention of those students who had an intermediate background. Before the introduction of PSJ, 42 percent respondents wanted to buy the product. However, after the introduction of PSJ, 60 percent are interested in the product. The impact on A-Levels students was negligible.

Area of Residence & Pseudo-Scientific Jargon

Table 13: Area of Residence : Control Group

Area of Residence	Frequency
Very Expensive Areas	11
Middle Expensive Areas	6
Less Expensive Areas	9
Others	4

Table 14: Area of Residence : Treatment Group

Area of Residence	Frequency
Very Expensive Areas	11
Middle Expensive Areas	6
Less Expensive Areas	9
Others	4

Transmission of Perceived Benefits Message, Area of Residence & PSJ

Table 15: Response to Q12 (Control Group)

Response	Frequency
Area of Residence: Very Expensive Affirmative Responses	4
Area of Residence: Very Expensive Negative Responses	7
Area of Residence: Medium Expensive Affirmative Responses	4
Area of Residence: Medium Expensive Negative Responses	2
Area of Residence: Less Expensive Affirmative Responses	2
Area of Residence: Less Expensive Negative Responses	7
Others Affirmative Responses	2
Others Negative Responses	2

Table 16: Response to Q12 (Treatment Group)

Response	Frequency
Area of Residence: Very Expensive Affirmative Responses	3
Area of Residence: Very Expensive Negative Responses	8
Area of Residence: Medium Expensive Affirmative Responses	6
Area of Residence: Medium Expensive Negative Responses	0
Area of Residence: Less Expensive Affirmative Responses	6
Area of Residence: Less Expensive Negative Responses	3
Others Affirmative Responses	3
Others Negative Responses	1

There is a significant increase in the advertisement's ability to transmit the desired benefits message with the introduction of PSJ. PSJ factor has removed all negative responses for subjects that are residents of middle expensive areas like Gulshan. The advertisement's inability to communicate the benefits message to respondents of less expensive areas was removed by PSJ increasing the affirmative responses from 29 percent of all residents of less expensive areas to 67 percent of such respondents. PSJ though has had no impact on respondents of very expensive areas.

Visual Representation, Area of Residence & PSJ

Table 17: Responses to Q13 (Control Group)

Response	Frequency
Area of Residence: Very Expensive Affirmative Responses	8
Area of Residence: Very Expensive Negative Responses	3
Area of Residence: Medium Expensive Affirmative Responses	3
Area of Residence: Medium Expensive Negative Responses	3
Area of Residence: Less Expensive Affirmative Responses	4

Area of Residence: Less Expensive Negative Responses	5
Others Affirmative Responses	4
Others Negative Responses	0

Table 18: Responses to Q13 (Treatment Group)

Response	Frequency
Area of Residence: Very Expensive Affirmative Responses	7
Area of Residence: Very Expensive Negative Responses	4
Area of Residence: Medium Expensive Affirmative Responses	5
Area of Residence: Medium Expensive Negative Responses	1
Area of Residence: Less Expensive Affirmative Responses	7
Area of Residence: Less Expensive Negative Responses	2
Others Affirmative Responses	2
Others Negative Responses	2

Introduction of PSJ increased the visual appeal (in terms of benefits offering of the product) for middle and less expensive areas significantly. Affirmative answers increased for the middle expensive and less expensive areas by 60 percent and 40 percent respectively. PSJ had no significant impact on respondents residing in very expensive areas such as Clifton.

Purchase Intention, Area of Residence & PSJ

Table 19: Responses to Q14 (Control Group)

Response	Frequency
Area of Residence: Very Expensive Affirmative Responses	2
Area of Residence: Very Expensive Negative Responses	9
Area of Residence: Medium Expensive Affirmative Responses	3
Area of Residence: Medium Expensive Negative Responses	3
Area of Residence: Less Expensive Affirmative Responses	3
Area of Residence: Less Expensive Negative Responses	6
Others Affirmative Responses	2
Others Negative Responses	2

Table 20: Response to Q14 (Treatment Group)

Response	Frequency
Area of Residence: Very Expensive Affirmative Responses	2
Area of Residence: Very Expensive Negative Responses	9
Area of Residence: Medium Expensive Affirmative Responses	5
Area of Residence: Medium Expensive Negative Responses	1
Area of Residence: Less Expensive Affirmative Responses	8
Area of Residence: Less Expensive Negative Responses	1
Others Affirmative Responses	1
Others Negative Responses	3

Purchase intention increases significantly for respondent residing in middle and less expensive areas. There was a negligible impact on respondents with residences in very expensive areas.

Product Involvement Level & PSJ

It was judged after analyzing the answers of questions 1, 3, 4 and 6 that the following breakdown can be developed for subjects with respect to their product involvement level.

Table 22: Product Involvement Distribution (Control Group)

Level of Product Involvement	Frequency
Highly Involved	9
Involved	7
Uninvolved	5
Highly uninvolved	9

Table 23: Product Involvement Distribution (Treatment Group)

Level of Product Involvement	Frequency
Highly Involved	12
Involved	6
Uninvolved	7
Highly uninvolved	5

Transmission of Perceived Benefits Message, Product Involvement Level & PSJ

Table 24: Responses to Q12 (Control Group)

Level of Product Involvement	Positive Response	Negative Response
Highly Involved	4	5
Involved	3	4
Uninvolved	3	2

Highly uninvolved	6	3
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Table 25: Responses to Q12 (Treatment Group)

Level of Product Involvement	Positive Response	Negative Response
Highly Involved	4	8
Involved	3	3
Uninvolved	6	1
Highly uninvolved	5	0

PSJ increases the message effectiveness of the advertisement for those respondents who were not very involved with the product. For them, shampoo is a low involvement product with little emotional cost associated with a wrong choice. PSJ, however, failed to make an impact when exposed to highly involved consumers who considered it as another marketing gimmick. This was conveyed to me by some respondents on further probing.

Visual Representation, Product Involvement Level & PSJ

Table 26: Responses to Q13 (Control Group)

Level of Product Involvement	Positive Response	Negative Response
Highly Involved	5	4
Involved	4	3
Uninvolved	4	1
Highly uninvolved	7	2

Table 27: Responses to Q13 (Treatment Group)

Level of Product Involvement	Positive Response	Negative Response
Highly Involved	6	6
Involved	3	3
Uninvolved	5	2
Highly uninvolved	3	2

PSJ factor had no significant impact on the responses pertaining to the visual impact of the advertisement.

Purchase Intention, Product Involvement Level & PSJ

Table 28: Responses to Q14 (Control Group)

Level of Product Involvement	Positive Response	Negative Response
Highly Involved	2	7
Involved	2	5

Uninvolved	3	2
Highly uninvolved	5	4

Table 29: Responses to Q14 (Treatment Group)

Level of Product Involvement	Positive Response	Negative Response
Highly Involved	3	9
Involved	2	4
Uninvolved	4	3
Highly uninvolved	4	1

PSJ factor increases the purchase intention with people who are not highly involved with the product. For them, finding the “scientific evidence” is enough to persuade them to give the product a try. However, consumer retention and resale scenario is more relevant for highly involved consumers. Highly involved consumers would have more potential of turning into brand loyalists.

Conclusion

The findings are mixed and show that in some cases pseudo-scientific jargon use is beneficial especially with residents living in lesser expensive areas of the city. The inertness of the residents of very expensive areas conveys a message to advertisers to avoid using such jargons while targeting a product to the rich and affluent of the very expensive areas of Karachi. These people were probably more put off by the anonymity of the brand offered and might have responded a bit differently if the product had been more popular. Mostly urban educated classes realize that the reason for advertisement is to create purchase intention and are, hence, slightly distrustful of pseudo scientific jargon. The opposite may be true for the less sophisticated buyer and consumer with lower product involvement. Female consumers also appear more influenced by PSJ.

New research into psycholinguistics indicate that people are able to understand complex vocabulary if provided with proper explanation. To target sophisticated and highly involved consumers, advertisers can use real technical terms instead of pseudo-scientific jargon. The scientific terms are verifiable and may influence greater purchase intention.

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Pseudo Scientific Jargons And Advertising Persuasiveness Shampoos

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