

Chapter IV

Results and Discussions

The study entitled “**IMPACT OF SUBLIMINAL MESSAGES IN TV ADVERTISEMENTS ON CONSUMER BEHAVIOUR**”, (**A CASE STUDY OF YOUTH IN KASHMIR PROVINCE OF J&K**)’ looks into how subliminal advertisements affect various dimensions of consumer behaviour and to explore it, some of the components along with demographics of a consumer were taken into consideration which were analysed and are explained through verification of hypothesis.

This chapter is divided into sub topics including demographics, verification of hypothesis and interpretation.

4.1 Demographics

4.1.1 Gender

In order to provide descriptive information about demographic variables, frequency tests were employed which revealed that 51.8% composed of males and 48.2% were that of females. This is due to the fact that educational institutes enrol students who give due consideration to both males and females.

Tab.4.1

Gender	Frequency	Percent
Male	202	51.8
Female	188	48.2
Total	390	100.0

4.1.2 Employment status

Employment status is one of the emerging demographic variables especially in the field of psychology and other behavioural fields. In our case majority of the population consisted of unemployed (93.8%) youth because of being on rolls in different educational institutes, whereas only (6.2 %) consisted of employed youth.

Tab.4.2

Employment	Frequency	Percent	Cumulative Percent
Employed	24	6.2	6.2
Unemployed	366	93.8	100.0
Total	390	100.0	

4.1.3 Residence

Location forms an important part of segmentation and marketing policies, the behaviour of a consumer does vary from place to place and people from different locations do tend to show differences in their behaviour after being exposed to ads and same was the reason in choosing the residence so as to see how people from different areas will report after being exposed to subliminal ads. The districts in Kashmir region (10) were divided into three broader areas namely North, Central and South Kashmir. The final results revealed that 34.4% were from central Kashmir, 33.1% from North Kashmir where as 32.6 from South Kashmir.

Tab. 4.3

Residence	Frequency	Percent	Cumulative Percent
South Kashmir	127	32.6	32.6
North Kashmir	129	33.1	65.6
Central Kashmir	134	34.4	100.0
Total	390	100.0	

4.1.4 Age

Age also forms an important part of consumer behaviour as one would see huge differences in consumer buying decisions depending upon the stage of age consumer may be. The frequency of the purchase within an individual in teenage can be seen on higher side than that of an individual who is in the decline stage of his/her life and same is the case with type of purchase as consumers tend to become more economical in later part of their life. Taking these things into consideration, age factor was included so as to see how the exposure to subliminal ads varies in comparison to different age groups .In this study, the frequency tests have revealed that majority of them were youth and it was evident because study was limited to predefined age group 18-35, where 25.6 % were from (18-21) age group,25.9% from (22-25) age group ,23.6% from (26-29) age group and same way 23.6% were from (20-33) age group.

Tab. 4.4

	Frequency	Percent	Cumulative Percent
Age 18-21	100	25.6	25.6

22-25	101	25.9	51.5
26-29	97	24.9	76.4
30-33	92	23.6	100.0
Total	390	100.0	

4.2 Testing of Hypotheses

This section includes verification of hypothesis and discussions on the results obtained and the hypotheses have been discussed below under various subsections.

4.2.1 Impact of Cognition and Affection on Compulsive Buying

1. H₀: Feelings and cognition generated by subliminal ads are not effective in creating compulsive buying behaviour.

Here the issue was to examine the impact of feelings and cognition generated by subliminal ads on buying behaviour i.e to say whether generated feelings and cognition affect compulsive buying behaviour. For this, Two way ANOVA was applied between Feelings, Cognition and Compulsive Buying. Test statistics are given below:

The test statistics for the significance of the overall effect is:

$$F = (1696.675 / 17.596)$$

$$= 96.423$$

With 220 and 167 degrees of freedom, the critical value of F is in between 1.22 and 1. Hence, calculated value of F is greater than the tabulated value which is supporting alternative hypothesis that feelings and cognition generated by subliminal ads are effective in creating compulsive buying behaviour. Thus it is significant at 0.05 significance level. Since overall effect is significant, interaction effect was examined which is

$$F = (48.434 / 17.596) = 2.753$$

Tab. 4.5

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
FEELINGS	2715.194	39	69.620	3.957	.000
COGNITION	2174.545	27	80.539	4.577	.000
FEELINGS * COGNITION	7410.349	153	48.434	2.753	.000
Model	373268.438	220	1696.675	96.423	.000
Error	2938.562	167	17.596		
Total	376207.000	387			

a. R Squared = .992 (Adjusted R Squared = .982)

With 153 and 167 degrees of freedom, the critical value of F is in between 1.22 and 1. Again, the calculated value of F is greater than critical value which is significant at 0.05 level. Hence the effects of feelings depend on cognition. That's is to say that compulsive buying is dependent on

cognition and type of feelings generated by subliminal ads and for a company it is of greater importance so as to increase sales. Also to achieve such objective companies will need to control cognitive component while influencing emotional part of a consumer, because as long as feelings are greater than cognition consumers will always be inclined towards compulsive buying which is irrational buying.

4.2.2 Cognition, Affection And Age

2. H0: Subjects exposed to subliminal advertisements report same affection (feelings) and cognition.

Affection (Feelings)

To find whether groups under different age categories show any statistical significance, K-Sample independent test was applied and tab.6 below reveals that the differences among different age groups are not statistically significant, though from the table it may appear that there are differences but under Test Statics(tab.6) with 3 degrees of freedom and 0.05 significance level, the critical value of Chi-Square is 7.815(Affection column) which is more than calculated value and hence supporting hypothesis of no significant difference. Also the value of probability being more than the significance level supports null hypothesis that subjects exposed to subliminal advertisements will report same feelings.

Cognition

Again K-sample independent test was applied to see whether consumers of different age group show any statistical difference in their cognition. Here in this case as against to feelings case discussed above, the differences were significant as the probability associated with test (0.002) is less than significance level of 0.05 which supports alternative hypothesis. Also with 3 degrees of freedom and 0.05 significance level, the critical value of Chi Square is 7.815(Cognition Column) which shows that the calculated value of Chi-Square is more than the critical value that leads to rejection of null hypothesis and leads to selection of alternative hypothesis that subjects exposed to similar subliminal advertisements report different Cognition.

Now what are the implications of cognition and affection associated with test statistics depicted below in tab.6. For this, there are two components under age group that is affection (feelings) and beliefs (cognition). Consumer behaviour is dependent on different factors and on age as well. Consumer would be considered rational decision maker if his/her cognitive power is more than affection or feelings, as higher cognition means proper planning and self control whereas higher affection means greater dependence on emotions which would always promote irrational buying. In tab.6, comparison between both the factors was drawn so as to

determine rational or irrational buying behaviour which consumers may show after being exposed to subliminal ads.

Tab. 4.6

Ranks				
Age	N	Cognition Mean Rank	Feelings Mean Rank	Comparison between Cognition and Affection
18-21	100	220.86	200.97	Rational Behaviour
22-25	101	161.79	210.30	Irrational Behaviour
26-29	97	203.26	197.34	Irrational Behaviour
30-33	92	196.76	171.36	Rational Behaviour
Total	390			

Test Statistics^{a,b}

	COGNITION	FEELINGS
Chi-Square	14.619	6.230
Df	3	3
Asymp. Sig.	p(.002)<0.05	p(.101)>0.05
Result	Reject Null Hypothesis	Accept Null Hypothesis

a. Kruskal Wallis test

b. Grouping

Variable:Age

Comparison of Feelings and Cognition with respect to age

In above tab.6, consumers under (18-21) age group show rational behaviour as cognitive mean rank is higher than feelings mean rank. Though difference is small but it is still approaching rational behaviour as cognition is on higher side. But contrary to what was supposed, consumers under age group (22-25) show irrational behaviour as their

cognitive means are lower than feelings mean. With rest two groups of (26-29) and (30-33) cognition as expected is on higher side indicating rational buying behaviour. Cognition being on higher side in most of the cases compared across age group indicates that subliminal ads don't pose any threat as far as irrational buying is considered apart from one which falls in (21-23) age group that could be because of other factors such as personality ,gender difference etc.

4.2.4 Gender and ad involvement

3. H0: Male and female subjects exposed to subliminal advertisements do not report any significant difference in ad involvement component.

Here ad Involvement component as mentioned above is the likely/emotional involvement of respondents in depicted characters of subliminal ads. To tests this hypothesis, Mann Whitney U Test was applied whose statistics are given below. The test statistics in tab. 7 shows significant differences in ad involvement component as value of Z(-4.295) lies outside acceptance region.

Tab.4.7

Ranks				
	Gender	N	Mean Rank	Sum of Ranks
INVOLVEMENT	Male	202	218.97	44231.50
	Female	188	170.28	32013.50

Total	390		
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Test Statistics

	INVOLVEMENT
Mann-Whitney U	14247.500
Wilcoxon W	32013.500
Z	-4.295
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Gender

Also from above table, probability (0.000) being less than significance level of 0.05, null hypothesis of no significance was rejected, in fact male and female respondents do show significant differences in ad involvement component with male (218.97) on higher side than females(170.28). That's why most of the ads include female characters as this has significant effect in arousing sexual desires mostly among male respondents. Such findings can pose serious threats from consumer's point of view but it can be highly beneficial from company's point of view. With male showing higher involvement means they will be more prompted towards irrational behaviour and vulgarous than female respondents which is the concern for society but on the other hand it has become a technique for companies to involve consumers in compulsive buying.

4.2.5 Age and involvement

4. H0: Subjects of different age group exposed to subliminal advertisements do not report any significant difference in ad involvement component.

Tab. 4.8

Ranks

	Age	N	Mean Rank
INVOLVEMENT	18-21	100	226.55
	22-25	101	163.34
	26-29	97	209.19
	30-33	92	182.63
	Total	390	

Test Statistics

	INVOLVEMENT
Chi-Square	18.732
Df	3
Asymp. Sig.	p(<0.05).000

a. Kruskal Wallis Test

b. Grouping Variable: Age

Here null Hypothesis was rejected as the value of probability associated with the test is less than significance level of 0.05. Also with 3 degrees of freedom and 0.05 significance level, the critical value of Chi-square is 7.815 which is less than calculated value of 18.732 supporting alternative hypothesis that subjects of different age group exposed to

subliminal advertisements report significant difference in ad involvement component. This is also evident from the tab.8 as mean ranks are different for each age group but (18-20) age group shows highest involvement with exception under age group (21-23) which is on lower side than next two age groups. The respondents with higher mean values show higher irrational buying and it has implications on other demographics as well because if one need such as sexual desire does not get fulfilled then the consumer of the particular ad will always look for alternative options in order to satisfy himself or herself . That is why young college girls and boys are seen using drugs in colleges because they have been affected by exposure to subliminal ads wherein they find themselves highly involved or in other words they want to perform same what is shown in ads but not having scope to do the same they find themselves involved in number of anti social activities such as masturbation, drugs and undesirable sexual relationships.

4.2.6 Cognition ,affection and gender

5. H0: Male Subjects exposed to subliminal messages in TV advertisements report same cognition and affection as that of female subjects.

Believability/Cognition after exposure to subliminal ads was explored through seven point differential scale including various adjectives asking respondents how they felt about particular adjective (for complete information see Instrument details in APPENDIX B). Mann-Whitney U

Test was applied between cognition and gender, between affection and gender whose details are given below:

Cognition

Here no such significant difference was found as indicated by ranks and also probability (0.955) being greater than significance level of 0.5 supports the null hypothesis of no significant difference in cognition. Z value (-0.56 falling in the acceptance region of ± 1.96) also supports null hypothesis. (see cognition column below)

Affection

Here null hypothesis was rejected as the value of probability 0.007 is less than significance level of 0.05 , also value of $z(-2.675)$ lies in the rejection region which supports alternative hypothesis that male subjects exposed to subliminal messages in TV advertisements report significant difference in feelings component compared to that of female subjects as mean rank of females(211.32) is greater than males (180.78). This indicates that females report higher negative feelings than males and will be more prompted towards irrational buying. Further, comparison was also drawn between feelings and cognitive components with respect to gender

Tab. 4.9

Gender	N	Sum of Ranks(Cognition)	COGNITION Mean Rank(C)	Affection Mean Rank(A)	Sum of Ranks(Affection)	Comparison between C and A
Male	202	39553.00	195.81	180.78	36517.50	Rational Behaviour
Female	188	36692.00	195.17	211.32	39727.50	Irrational Behaviour
Total	390					

Test Statistics^a

	COGNITION	AFFECTION
Mann-Whitney U	18926.000	16014.500
Wilcoxon W	36692.000	36517.500
Z	-.056	-2.675
Asymp. Sig. (2-tailed)	p(.955)>0.05	p(.007)<0.05
Result	Accept Null Hypothesis	Reject Null Hypothesis

a. Grouping Variable: Gender

Comparison of Feelings and Cognition with respect Gender.

It is clear from Tab.9, feelings are more than cognition in case of females which is labelled as Irrational Behaviour and on the other hand, Cognition is on higher side in case of males and hence is marked as rational behaviour. So, clearly gender differences do affect the cognition and affection process and from above statistics it has been concluded that female consumers of subliminal ads will be more prompted towards

irrational buying than males as their cognitive power in against to the subliminal ads is reported lower than that of feelings.

4.2.8 Gender and ad confusion

6. H0: Male and Female subjects exposed to Subliminal ads do not report significant difference in ad confusion component.

As discussed earlier ad confusion component means confusion created by advertisements and here in this case it is confusion created by subliminal ads, in other words it means whether consumers of the subliminal ads are able to understand such type of ads because understanding and not understanding the advertisement has a lot to do with consumer behaviour. As mentioned by Dave Lakhani(2008) in his book, “Subliminal Persuasion”, advertising agencies create confusion in the mind of customer through different ads which then triggers irrational buying as mind would already have been corrupted by subliminal ads. Again Man Whitney U Test was conducted whose test statistics are given below in tab.10:

Tab. 4.10

		Ranks		
Gender		N	Mean Rank	Sum of Ranks
UNDERSTANDING	Male	202	196.97	39788.50

Female	185	190.75	35289.50
Total	387		

Test Statistics^a

	UNDERSTANDING
Mann-Whitney U	18084.500
Wilcoxon W	35289.500
Z	-.549
Asymp. Sig. (2-tailed)	.583(p>0.05)

a. Grouping Variable: Gender

Here alternative hypothesis was rejected as the value of probability associated with the test statistics is higher than significance level of 0.05, also value of Z being (-0.549) falls in the acceptance region which supports the null hypothesis that is male and female subjects exposed to subliminal ads do not report significant difference in ad confusion component .

4.2.9 Age and ad confusion

7. **H0: Subjects of different age group exposed to subliminal ads do not report any significant difference in ad confusion component.**

Again null hypothesis was selected as the probability associated with the test statics is more than the significant level of 0.05. Also with 3 and 0.05 degrees of freedom, the critical value of Chi-Square is 9.488 that is more than the tabulated value of (0.050) in this case(Tab.11), which again supports the null hypothesis that subjects of different age group exposed

to subliminal ads do not report any significant difference in ad confusion component.

Tab. 4.11

Age	N	Mean Rank
18-21	100	194.43
22-25	101	195.79
26-29	97	192.65
30-33	92	192.94
Total	390	

Test Statistics

	INVOLVEMENT
Chi-Square	.050
Df	3
Asymp. Sig.	.997(p >0.05)

a. Kruskal Wallis Test

b. Grouping Variable: Age

4.2.10 Residence and purchase intentions

8. H0: Subjects from different areas exposed to subliminal advertisements do not show any significant difference in purchase intentions.

Tab. 4.12

Ranks

Residence	N	Mean Rank
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PURCHASEINTENTION	South Kashmir	127	217.31
	North Kashmir	129	178.29
	Central Kashmir	134	191.40
	Total	390	

Test Statistics^{a,b}

	PURCHASEINTENTION
Chi-Square	7.981
Df	2
Asymp. Sig.	(p <0.05).018

a. Kruskal Wallis Test

b. Grouping Variable: Residence

Does products, actions and messages in subliminal ads affect purchase intentions of consumers from different areas, in other words does it leave any mark on subconscious part of consumer's mind? For this, K-Independent sample test between residence and purchase intentions was applied. Test statistics include Ranks, Chi Square and probability. With 2 degrees of freedom and 0.05 significance level, the critical value of Chi Square from table value (0.103) is less than calculated value of 7.981 that supports alternative hypothesis of significant difference which is also indicated by ranks 217.31, 178.29, 191.40 where people from south show higher purchase intentions than Central Kashmir and North Kashmir.

4.2.11 Gender and compulsive buying

9. H0: Male and female respondents exposed to subliminal advertisements do not report any significant difference in compulsive buying.

Compulsive buying can vary with respect to age ,gender and other factors as well but here only one factor that is gender was considered, it was assumed that male and female respondents will not report any significant difference in compulsive buying and for this again

Tab. 4.13

Ranks

Gender		N	Mean Rank	Sum of Ranks
COMPULSIVEBUYING	Male	202	187.33	37840.00
	Female	185	201.29	37238.00
	Total	387		

Test Statistics^a

	COMPULSIVEBUYING
Mann-Whitney U	17337.000
Wilcoxon W	37840.000
Z	-2.675
Asymp. Sig. (2-tailed)	(p <0.05).007

a. Grouping Variable: Gender

Mann Whitney U Test was applied between two components i.e Gender and Compulsive Buying which is given above. It is clear from mean rank values which shows difference in compulsive buying with females

indicating higher compulsiveness than males and overall test statistics report this difference as significant as the value of probability associated with test (0.007) is less than significance level of 0.05 which supports alternative hypothesis of significant difference, so gender differences also play significant role in compulsive buying behaviour that consumer may show. As was discussed in hypothesis H5, females show higher negative feelings than male respondents thus as proposed that female would be showing more compulsive buying than males is evident from test statistics above.

The overall results of the hypothesis are concluded in Tab.14

Tab. 4.14

Hypothesis	Remarks
H	Emotional and Cognitive components are effective in determining compulsive buying that is Subliminal Ads are effective in influencing feelings of a consumer while as gaining control on cognitive dimensions of an Individual.
H	Different Subjects under different age group report different feelings but the test statistics show this difference as insignificant.
H	Different Subjects under different age groups report different cognition after being exposed to subliminal ads and test statics reveals this difference as significant.
H	Both Male and Female subjects report significant difference in Ad Involvement component which is important in determining the type of behaviour.
H	Subjects under different age group report significant difference in Ad Involvement Component.
H	Males and Female respondents after exposed to subliminal ads don not show significant difference in Cognition.
H	Males and Female subjects after exposed to subliminal ads show significant difference in Affection.
H	Males and Female respondents don not show significant difference in ad confusion component.
H	Subjects under different age group do not report significant difference in ad confusion component.

H	Subjects from different areas report significant difference in purchase intentions with South on higher side and subjects from Central Kashmir showing lowest intentions.
H	Male and Female subjects exposed to subliminal ads report significant difference in Compulsive Buying with females showing higher compulsive buying than Males