

## *Chapter VI*

# *Women Consumers - Impact and Satisfaction towards Internet Advertisements*

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## **CHAPTER VI**

### **WOMEN CONSUMERS - IMPACT AND SATISFACTION TOWARDS INTERNET ADVERTISEMENTS & THE CHALLENGES FACED BY THE WOMEN CONSUMERS WHILE ACCESSING AND WATCHING INTERNET ADVERTISEMENTS**

Internet advertisements are an innovative concept trending in the internet platform to capture the attention of the consumers all over the world. It is used to find the requirements of the consumers and to get feedback from the consumers. It is widely access to gather information related to new launched products and services and to make immediate access of offers and discounts at the right time. It creates an impact in the minds of the women consumers to take purchase decisions and access of services. It motivates the women consumers to select products and services according to their needs and wants among the alternatives after analyzing its pros and cons through the internet advertisements.

The consumer satisfaction is evident in determining the success of the internet advertisements. The women consumers are satisfied in watching the internet advertisements to purchase the products and access of services based on their requirement after analyzing its benefit. It educates the women consumers regarding uses of the products and services. It reduces the stress and risk in choosing the products and services by analyzing the feedback from the previous consumers and saves time of the women consumers to take immediate purchase decisions and access of services. The challenges faced by the women consumers while accessing and watching internet advertisements has been analyzed in this study to resolve the issues that disappoint the women consumers. The objective of the study deals with the level of impact and satisfaction towards internet advertisements regarding purchases of products and access of services and the challenges faced by the women consumers in accessing and watching internet advertisements.

## Impact of Internet Advertisements on Purchase Decisions

The agreeability ratings have been found to identify impact of internet advertisements on purchase decisions. The respondents have been asked to express their opinion on a five point Likert scale. The ratings have been assigned as **5 - Strongly Agree, 4 - Agree, 3 - Neutral, 2 - Disagree and 1 - Strongly Disagree** for all the statements. The table 6.1 shows the mean rating for all the statements.

**Table 6.1**

### Impact of Internet Advertisements on Purchase Decisions

Statements	N	Minimum	Maximum	Mean	S.D
<i>It creates knowledge about new product launched</i>	400	1	5	4.30	.64
It supports me to identify the best product	400	1	5	4.10	.63
Most of my purchases are based on information available in internet advertisement	400	1	5	3.74	.92
It changes the attitude towards a certain product after reading positive reviews from previous users	400	1	5	3.95	.79
It influences my self esteem	400	1	5	3.72	.86
It assists me to adopt new style of living	400	1	5	3.81	.74
It is highly credible for me to take decision	400	1	5	3.84	.81
It is time efficient to decide and purchase a product	400	1	5	4.02	.72
It saves money and helps me in effortless shopping	400	1	5	4.04	.83
It sometimes makes me to buy impulsively	400	1	5	3.79	.78
It increases my frequency of purchase	400	1	5	3.71	.89

(Source: Computed)

It is observed from the table 6.1 that the respondents have agreed with the statement ‘It creates knowledge about new product launched’ with the highest mean score of 4.30, followed by ‘It supports me to identify the best product’ (Mean 4.10), ‘It saves money and helps me in effortless shopping’ (Mean 4.04), ‘It is time efficient to decide and purchase a product’ (Mean 4.02), ‘It changes the attitude towards a certain product after reading positive reviews from previous users’ (Mean 3.95), ‘It is highly credible for me to take decision’ (Mean 3.84), ‘It assists me to adopt new style of living’ (Mean 3.81), ‘It sometimes makes me to buy impulsively’ (Mean 3.79), ‘Most of my purchases are based on information available in internet advertisement’ (Mean 3.74), ‘It influences my self esteem’ (Mean 3.72) and the lowest mean score of 3.71 has been found for the statement that ‘It increases my frequency of purchase’. Hence, it is inferred that all the statements have been ‘agreed’ by the women consumer because the women consumers prefer watching internet advertisements to take immediate decision regarding purchase of products.

#### **ANOVA – Demographic Factors Vs Impact Score on Purchase Decisions**

ANOVA / t-test has been used to test whether the scores obtained for ‘Impact of internet advertisements on Purchase Decisions ’ has differed significantly among the respondents classified based on ‘Demographic Factors’ with the following null hypothesis:

*H<sub>0</sub>: The impact score of internet advertisements on purchase decisions do not differ significantly among the demographic factors.*

**Table 6.2**

**ANOVA – Demographic Factors Vs Impact Score on Purchase Decisions**

<b>Demographic Factors</b>	<b>Classification</b>	<b>Mean</b>	<b>S.D</b>	<b>No.</b>	<b>t</b>	<b>F</b>	<b>Table Value</b>	<b>Sig</b>
<b>Age</b>	18-20 years	41.42	6.50	45	-	1.830	2.395	Ns
	21-30 years	43.55	4.69	150				
	31-40 years	42.83	4.99	117				
	41-50 years	43.00	3.87	69				
	<b>Above 50 years</b>	<b>43.95</b>	<b>5.29</b>	<b>19</b>				
<b>Educational Qualification</b>	Higher secondary	42.47	3.43	36	-	1.404	2.627	Ns
	Graduates	42.54	5.18	161				
	Post Graduates	43.30	5.32	94				
	<b>Professionals</b>	<b>43.68</b>	<b>4.60</b>	<b>109</b>				
<b>Marital Status</b>	<b>Married</b>	<b>43.15</b>	<b>4.64</b>	<b>274</b>	0.737	-	1.966	Ns
	Unmarried	42.75	5.54	126				
<b>Occupation</b>	College Students	43.02	4.94	400	-	.965	2.237	Ns
	Private Employees	42.55	5.46	97				
	Government Employees	43.68	4.76	71				
	Professionals	43.20	4.83	44				
	Self-Employed	43.26	4.19	54				
	<b>House wives</b>	<b>43.85</b>	<b>4.13</b>	<b>41</b>				
<b>Earning Members in the Family</b>	One	42.93	5.01	138	-	2.713	2.627	*
	Two	42.82	4.91	176				
	<b>Three</b>	<b>44.38</b>	<b>4.95</b>	<b>64</b>				
	More than three	41.23	3.94	22				
<b>Family Monthly Income</b>	<b>Upto Rs.20,000</b>	<b>44.03</b>	<b>5.13</b>	<b>66</b>	-	.965	2.237	Ns
	Rs.20,001- Rs.40,000	42.28	4.71	68				
	Rs.40,001- Rs.60,000	43.23	4.49	134				
	Above Rs.60,000	42.69	5.33	132				

(Source: Computed) (Ns- Not Significant) (\*- at 5 per cent level)

The highest mean score of 43.95 has been found for the respondents who belong to age group of above 50 years and the lowest mean score of 41.42 has been found among the respondents who belong to the age group of 18-20 years. Hence, it is found that the respondents are above 50 years because they are not willing to spend more time in shopping. So, they gather information about the products before taking any purchase decisions.

With respect to the educational qualification, the highest mean score of 43.68 has been found among the professionals. Whereas, the lowest mean score of 42.47 has been found among the higher secondary students.

Regarding the marital status, the highest mean score of 43.15 has been found among the married respondents. The unmarried respondents have been identified with the lowest mean score of 42.75. It is found that the married respondents are the decision makers in their family and the internet advertisements motivated them to take purchase decisions.

The impact score has been found for the occupation of the respondents, the highest mean score of 43.85 has been found among the housewives and the lowest mean score of 42.55 has been identified among the private employees. Hence, it is found that the housewives have more responsible towards purchase of products.

With respect to earning members in the family, the respondents who have three earning members in the family have the highest mean score of 44.38. Whereas, the lowest mean score of 41.23 has been found among the respondents who have more than three earning members in their family.

The respondents who have a family monthly income upto Rs.20,000 have the highest mean score of 44.03 and the least mean score of 42.28 has been identified among the respondents who have a family monthly income of Rs.20,001 to Rs.40,000. Hence, the respondents who have a family monthly income upto Rs.20,000 are Housewives.

The ANOVA result has indicated that the demographic factors, such as, age, educational qualification, occupation and family monthly income have no significant difference with the impact of internet advertisements on purchase decisions. Hence, the null hypothesis is accepted. The earning members in the family have a significant difference with the impact of internet advertisements on purchase decisions at 5 per cent level. Hence, the null hypothesis is rejected.

The t-test result shows that there is no significant difference in the impact score of the internet advertisements on purchase decisions between married and unmarried. Hence, the null hypothesis is accepted.

### **ANOVA – Internet Usage Vs Impact Score on Purchase Decisions**

ANOVA has been used to test whether the scores obtained for ‘Impact of internet advertisements on Purchase Decisions’ has differed significantly among the respondents classified based on ‘Internet Usage’ with the following null hypothesis:

*H<sub>0</sub>: The impact score of internet advertisements on purchase decisions do not differ significantly among the internet usage.*

**Table 6.3**

### **ANOVA – Internet Usage Vs Impact Score on Purchase Decisions**

<b>Internet Usage</b>	<b>Classifications</b>	<b>Mean</b>	<b>S.D</b>	<b>No.</b>	<b>F</b>	<b>Table Value</b>	<b>Sig</b>
<b>Place of Internet Access</b>	<b>Home</b>	<b>43.44</b>	<b>4.83</b>	<b>126</b>	1.304	2.395	Ns
	College library	42.18	6.57	11			
	Internet center	41.54	6.49	13			
	Any time Any where	43.03	4.74	240			
	Working place	40.40	6.50	10			
<b>Frequency of Internet Access</b>	<b>Daily</b>	<b>43.22</b>	<b>4.94</b>	<b>348</b>	2.484	2.395	*
	Weekly	42.52	4.25	23			
	Fortnightly	39.00	5.26	8			
	Monthly	39.43	4.54	7			
	Very rarely	43.14	5.01	14			
<b>Frequency of Internet Access per Day</b>	Less than 1 hour	42.19	5.11	43	1.873	2.395	Ns
	1 hour	41.92	4.78	77			
	2 hours	43.24	4.96	87			
	3 hours	43.51	4.17	68			
	<b>More than 4 hours</b>	<b>43.57</b>	<b>5.26</b>	<b>125</b>			
<b>No. of Times of Internet Access per Day</b>	1 to 5 times	42.66	5.07	148	6.587	4.659	**
	6 to 10 times	42.09	4.50	116			
	<b>11 to 15 times</b>	<b>44.21</b>	<b>4.96</b>	<b>136</b>			

Internet Usage	Classifications	Mean	S.D	No.	F	Table Value	Sig
Internet Speed	<b>Super Fast</b>	<b>43.86</b>	<b>4.88</b>	<b>100</b>	1.641	2.627	Ns
	Fast	42.90	4.75	225			
	Moderate	42.15	5.48	59			
	Low	42.75	5.53	16			
Network Access in Phone/ I Pad /Tablet	BSNL	43.02	5.99	42	1.103	2.037	Ns
	Airtel	43.74	4.93	130			
	AirCel	42.09	4.86	43			
	Reliance	42.27	4.09	48			
	MTS	41.33	5.80	12			
	Vodafone	43.04	5.72	25			
	DoCoMo	43.24	3.51	17			
	<b>Idea</b>	<b>44.00</b>	<b>3.45</b>	<b>23</b>			
Network Access in Personal Computer /Laptop	BSNL	42.33	4.70	27	1.277	2.356	Ns
	Airtel	43.81	5.61	21			
	<b>AirCel</b>	<b>47.60</b>	<b>1.34</b>	<b>5</b>			
	Reliance	41.75	5.33	12			
	MTS	40.00	5.66	2			
	DoCoMo	44.00	8.08	4			
Frequently Used Browsers	Google Chrome	43.30	4.75	264	1.348	2.627	Ns
	Mozilla Firefox	41.77	6.29	35			
	<b>Internet Explorer</b>	<b>43.38</b>	<b>6.33</b>	<b>26</b>			
	UC Browser	42.51	4.27	75			
Popularly Used Search Engines	Google	43.11	4.92	343	1.239	2.395	Ns
	Yahoo	<b>43.52</b>	<b>5.70</b>	<b>25</b>			
	<b>MSN</b>	41.00	5.05	12			
	Bing	40.25	2.71	8			
	Ask	43.33	4.42	12			
Period of Watching Internet Channel Advertisements	Less than 1 year	42.45	5.12	80	.655	2.395	Ns
	2 years	42.92	4.99	154			
	3 years	43.24	4.57	99			
	4 years	<b>43.97</b>	<b>4.22</b>	<b>33</b>			
	<b>More than 4 years</b>	43.26	5.97	34			

(Source: Computed) (Ns- Not Significant)(\*\* - at 1 percent level)(\* - at 5 percent level)



It is observed from the table 6.3 that the highest mean score of 43.44 has been found among the respondents who have accessed the internet from their home. Whereas, the lowest mean score of 40.40 has been identified among the respondents who have accessed the internet from their workplace. Hence, the respondents have used the internet from their home and used broadband and Wi-Fi connection to gather information related to the products.

Mean score has been obtained for the frequency of internet access, the respondents who have accessed the internet daily have the highest mean score of 43.22 and the lowest mean score of 39.00 has been found among the respondents who have accessed the internet fortnightly. It is found that the respondents have used the internet daily to get regular update of information regarding the products.

With respect to the frequency of internet access per day, the highest mean score of 43.57 has been found among the respondents who have accessed the internet for more than 4 hours in a day and the respondents who have accessed the internet for 1 hour in a day have the lowest mean score of 41.92. It is inferred that the respondents are daily using the internet for more than 4 hours to collect information about the products.

The highest mean score of 44.21 has been identified among the respondents who have accessed the internet for 11to15 times. Whereas, the lowest mean score of 42.09 has been found for the respondents who have accessed the internet for 6 to10 times. It is found that the respondents have searched for different products in different sites. So, they have accessed the internet for 11 to 15 times.

With respect to the internet speed, the highest mean score of 43.86 has been found for the respondents who have accessed the internet at super fast and the lowest mean score of 42.15 has been found for the respondents who have accessed the internet at moderate speed. However, it is evident that the respondents are continuously using the internet for more than 4 hours daily because of super fast internet speed.

With respect to network access in Phone/ I pad /Tablet, the highest mean score of 44.00 has been found among the respondents who have used AirCel network and the lowest mean score of 41.33 has been found among the respondents who have used MTS network. It is found that the respondents those who are above 50 years have preferred to use AirCel network because low cost plans offer by the AirCel Company has fascinated the elder women consumers.

Regarding the network access in Personal Computer/ Laptop, the respondents who have used AirCel network have the highest mean score of 47.60 and the lowest mean score of 40.00 has been found among the respondents who have used MTS network. Hence, it is found that the respondents have used Aircel network because the network company offer unlimited data plans at the minimum cost.

With respect to the frequently used browsers, the highest mean score of 43.38 has been found among the respondents who have used Internet Explorer browser and the lowest mean score of 41.77 has been found among the respondents who have used Mozilla Firefox browser. Hence, the Internet explorer has been used as the default browser to gather more information related to various products.

With respect to the popularly used search engines, the respondents who have used Yahoo search engine have the highest mean score of 43.52 and the lowest mean score of 40.25 has been found among the respondents who have used Bing search engine. Hence, it is evident that the yahoo search engine users view various internet advertisements related to various products based on the consumer needs and wants.

Regarding the period of watching internet channel advertisements, the respondents who have accessed the internet channel advertisements for 4 Years have the highest level of impact (Mean 43.97) and the lowest level of impact (Mean 42.45) has been found among the respondents who have accessed the internet channel advertisements for less than 1 year. The respondents have accessed the internet at anytime anywhere because they are regularly watching the internet channel advertisements for 4 years.

The ANOVA result has indicated that the level of impact of internet advertisements on purchase decisions have no significant difference among the respondents based on internet usage, such as, place of internet access, frequency of internet access per day, internet speed and network access in Phone/I pad /Tablet, network access in Personal Computer/Laptop, frequently used browsers, popularly used search engines and the period of watching internet channel advertisements. Hence, the null hypothesis is accepted. The frequency of internet access has a significant difference with the level of impact of internet advertisements on purchase decisions at 5 per cent

level. Hence, the null hypothesis is rejected. The number of times of internet access per day has a significant difference with the level of impact of internet advertisements on purchase decisions at 1 per cent level. Hence, the null hypothesis is rejected.

### **Impact of Internet Advertisements on Access of Services**

The respondents have been asked to rate their level of agreeability regarding the statements relating to impact of internet advertisements on access of services. The respondents have been asked to express their opinion on a five point Likert scale. The ratings have been assigned as *5 - Strongly Agree, 4 - Agree, 3 - Neutral, 2 - Disagree and 1 - Strongly Disagree* for all the statements. The table 6.4 shows the mean rating for all the statements.

**Table 6.4**

#### **Impact of Internet Advertisements on Access of Services**

<b>Statements</b>	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>S.D</b>
<i>It creates awareness about various services</i>	<b>400</b>	<b>2</b>	<b>5</b>	<b>4.22</b>	<b>.63670</b>
I get knowledge about various services available relating to my search	400	1	5	4.10	.68055
It gives me more information about services that are newly launched	400	2	5	4.14	.62043
It keeps me updated about various services	400	1	5	4.06	.68745
It helps me in accessing services at right time	400	1	5	4.02	.68055
It motives me to access some of the services that suit my needs	400	1	5	3.89	.74990
It makes me to know special offers regarding various services	400	2	5	4.02	.65824
It makes my decision more easier about various services	400	1	5	3.89	.82925
It changes my mind towards some services relating to public welfare	400	1	5	3.92	.77142
It inspires me to render service to the society	400	1	5	3.87	.85327

(Source: Computed)

The mean ratings have shown that the respondents have 'agreed' with the statement 'It creates awareness about various services' with the highest mean score of 4.22 followed by 'It gives me more information about services that are newly launched' (Mean 4.14), 'I get knowledge about various services available relating to my search' (Mean 4.10), 'It keeps me updated about various services' (Mean 4.06), 'It helps me in accessing services at right time' and 'It makes me to know special offers regarding various services' (Mean 4.02), 'It changes my mind towards some services relating to public welfare' (Mean 3.92), 'It motives me to access some of the services that suit my needs' and 'It makes my decision more easier about various services' (Mean 3.89) and the lowest mean score of 3.87 has been found for the statement 'It inspires me to render service to the society'. Hence, it is inferred that the women consumers have 'agreed' with the statements related to impact of internet advertisements on access of services.

#### **ANOVA – Demographic Factors Vs Impact Score on Access of Services**

ANOVA / t-test has been used to test whether the scores obtained for 'Impact of internet advertisements on access of services' has differed significantly among the respondents classified based on 'Demographic Factors' with the following null hypothesis:

***H<sub>0</sub>: The impact score of internet advertisements on access of services do not differ significantly among the demographic factors.***

**Table 6.5**

**ANOVA - Demographic Factors Vs Impact Score on Access of Services**

<b>Demographic Factors</b>	<b>Classification</b>	<b>Mean</b>	<b>S.D</b>	<b>No.</b>	<b>t</b>	<b>F</b>	<b>Table Value</b>	<b>Sig</b>
<b>Age</b>	18 - 20 years	39.60	4.67	45	-	6.319	3.367	**
	21-30 years	40.51	3.85	150				
	31-40 years	38.85	3.88	117				
	41-50 years	41.48	3.74	69				
	<b>Above 50 years</b>	<b>41.74</b>	<b>4.53</b>	<b>19</b>				
<b>Educational Qualification</b>	Higher secondary	40.69	3.76	36	-	1.873	2.627	Ns
	Graduates	39.76	4.25	161				
	Post Graduates	39.84	4.44	94				
	<b>Professionals</b>	<b>40.82</b>	<b>3.51</b>	<b>109</b>				
<b>Marital Status</b>	<b>Married</b>	<b>40.30</b>	<b>4.10</b>	<b>274</b>	1.079	-	1.966	Ns
	Unmarried	39.83	4.02	126				
<b>Occupation</b>	College Students	39.76	3.82	93	-	3.330	3.064	**
	Private Employees	39.25	4.12	97				
	Government Employees	41.30	4.53	71				
	Professionals	39.84	3.13	44				
	Self-Employed	40.13	3.62	54				
	<b>House wives</b>	<b>41.54</b>	<b>4.58</b>	<b>41</b>				
<b>Earning Members in the Family</b>	One	40.33	4.45	138	-	1.227	2.627	Ns
	Two	39.81	3.77	176				
	<b>Three</b>	<b>40.86</b>	<b>4.34</b>	<b>64</b>				
	More than three	39.73	3.03	22				
<b>Family Monthly Income</b>	<b>Up to Rs.20,000</b>	<b>40.65</b>	<b>4.17</b>	<b>66</b>	-	1.900	2.627	Ns
	Rs.20,001- Rs.40,000	39.63	4.39	68				
	Rs.40,001- Rs.60,000	40.63	3.65	134				
	Above Rs.60,000	39.68	4.24	132				

(Source: Computed) (Ns- Not Significant) (\*\*- at 1 per cent level)

It is observed from the table 6.5 that the respondents who belong the age group of above 50 years have the highest mean score of 41.74 and the lowest mean score of 38.85 has been found among the respondents who belong to the age group of 31 to 40 years. Hence, it is inferred that the respondents who belong to the age group of above 50 years have mostly accessed the internet advertisements to save time in choosing the best service among the alternatives.

With respect to the educational qualification, the highest mean score of 40.82 has been found among the Professionals. Whereas, the lowest mean score of 39.76 has been found among the Graduates. Hence, it is inferred that the professionals have a higher level of impact of internet advertisements on access of services because they want to get maximum benefit while accessing services.

With respect to the marital status, the married respondents have the highest level of impact (Mean 40.30). The unmarried respondents have the lowest level of impact (Mean 39.83) towards internet advertisements. Hence, it is inferred that the married respondents have watched internet advertisements frequently because they want to take immediate decision regarding access of services.

Regarding the occupational status, the Housewives have the highest mean score of 41.54 and the lowest mean score of 39.25 has been identified among the Private Employees.

With respect to the earning members in the family, the respondents who have three earning members in the family have the highest mean score of 40.86 and the lowest mean score of 39.73 has been found among the respondents who have more than three earning members in the family.

The respondents who have a family monthly income upto Rs.20,000 have the highest mean score of 40.65 and the lowest mean score of 39.63 has been identified among the respondents who have a family monthly income of Rs.20,001 to Rs.40,000.

The ANOVA result has indicated that the demographic factors, such as, educational qualification, earning members in the family and family monthly income don't have a significant difference with the impact of internet advertisements on access of services. Hence, the null hypothesis is accepted. Age and occupation have a significant

difference with the impact of internet advertisements on access of services at 1 per cent significance level. Hence, the null hypothesis is rejected.

The t-test result shows that there is no significant difference in the impact score of the internet advertisements on access of services between married and unmarried. Hence, the null hypothesis is accepted.

### **ANOVA – Internet Usage Vs Impact Score on Access of Services**

ANOVA has been used to test whether the scores obtained for ‘Impact of internet advertisements on Access of Services, has differed significantly among the respondents classified based on ‘Internet Usage’ with the following null hypothesis:

*H<sub>0</sub>: The impact score of internet advertisements on access of services do not differ significantly among the internet usage.*

**Table 6.6**

### **ANOVA – Internet usage Vs Impact Score on Access of Services**

<b>Internet Usage</b>	<b>Classifications</b>	<b>Mean</b>	<b>S.D</b>	<b>No.</b>	<b>F</b>	<b>Table Value</b>	<b>Sig</b>
<b>Place of Internet Access</b>	<b>Home</b>	<b>40.52</b>	<b>4.06</b>	<b>126</b>	1.304	2.395	Ns
	College library	39.55	5.15	11			
	Internet center	39.69	5.30	13			
	Any time Any where	40.06	3.95	240			
	Working place	38.80	4.66	10			
<b>Frequency of Internet Access</b>	Daily	40.02	4.07	348	2.045	2.395	Ns
	Weekly	41.83	3.90	23			
	Fortnightly	38.25	5.01	8			
	<b>Monthly</b>	<b>42.29</b>	<b>3.82</b>	<b>7</b>			
	Very rarely	40.64	3.41	14			

Internet Usage	Classifications	Mean	S.D	No.	F	Table Value	Sig
<b>Frequency of Internet Access per Day</b>	<b>Less than 1 hour</b>	<b>41.16</b>	<b>4.54</b>	<b>43</b>	2.322	2.395	Ns
	1 hour	39.55	4.37	77			
	2 hours	39.39	3.16	87			
	3 hours	40.74	3.93	68			
	More than 4 hours	40.38	4.29	125			
<b>No. of Times of Internet Access per Day</b>	1to5 times	39.95	4.19	148	9.325	4.659	**
	6to10 times	39.11	3.56	116			
	<b>11to15 times</b>	<b>41.26</b>	<b>4.13</b>	<b>136</b>			
<b>Internet speed</b>	Super Fast	40.67	4.04	100	1.641	2.627	Ns
	Fast	40.08	4.02	225			
	Moderate	39.39	4.30	59			
	<b>Low</b>	<b>40.75</b>	<b>4.16</b>	<b>16</b>			
<b>Network Access in Phone/I Pad /Tablet</b>	BSNL	40.52	4.48	42	1.103	2.037	Ns
	Airtel	40.47	3.68	130			
	AirCel	39.23	3.49	43			
	Reliance	40.88	4.09	48			
	MTS	39.08	5.48	12			
	Vodafone	38.52	3.68	25			
	DoCoMo	40.47	4.36	17			
	<b>Idea</b>	<b>40.87</b>	<b>3.93</b>	<b>23</b>			
<b>Network Access in Personal Computer /Laptop</b>	BSNL	39.00	5.00	27	1.277	2.356	Ns
	Airtel	40.33	3.76	21			
	<b>AirCel</b>	<b>42.40</b>	<b>2.61</b>	<b>5</b>			
	Reliance	38.25	4.65	12			
	MTS	34.50	7.78	2			
	DoCoMo	41.50	<b>2.89</b>	<b>4</b>			



Internet Usage	Classifications	Mean	S.D	No.	F	Table Value	Sig
<b>Frequently Used Browsers</b>	Google Chrome	43.30	4.75	264	1.348	2.627	Ns
	Mozilla Firefox	41.77	6.29	35			
	<b>Internet Explorer</b>	<b>43.38</b>	<b>6.33</b>	<b>26</b>			
	UC Browser	42.51	4.27	75			
<b>Popularly Used Search Engines</b>	Google	43.11	4.92	343	1.239	2.395	Ns
	<b>Yahoo</b>	<b>43.52</b>	<b>5.70</b>	<b>25</b>			
	MSN	41.00	5.05	12			
	Bing	40.25	2.71	8			
	Ask	43.33	4.42	12			
<b>Period of Watching Internet Channel Advertisements</b>	Less than 1 year	42.45	5.12	80	.655	2.395	Ns
	2 years	42.92	4.99	154			
	3 years	43.24	4.57	99			
	<b>4 years</b>	<b>43.97</b>	<b>4.22</b>	<b>33</b>			
	Above 4 years	43.26	5.97	34			

(Source: Computed) (Ns- Not Significant)(\*\* - at 1 per cent level)

It is found from the table 6.6 that the respondents who have accessed the internet from home have the highest level of impact (Mean 40.52) and the lowest level of impact (Mean 38.80) has been found among the respondents who have accessed the internet from their workplace.

With respect to the frequency of internet access, the highest mean score of 42.29 has been found among the respondents who have accessed the internet monthly once. Whereas, the lowest mean score of 38.25 has been found among the respondents who have accessed the internet fortnightly. It is found that the respondents have used the internet monthly once because they are housewives.

Regarding the frequency of internet access per day, the respondents who have accessed the internet for less than 1 hour in a day have the highest mean score of 41.16

and the respondents who have accessed the internet for 2 hour in a day have the lowest mean score of 39.39. Hence, it is found that the respondents who have accessed the internet for less than 1 hour in a day have spent less time in gathering information related to access of services.

The mean score has been found for the number of times of internet access per day, the highest mean score of 41.26 has been identified among the respondents who have accessed the internet for 11to15 times and the lowest mean score of 39.11 has been found among the respondents who have accessed the internet for 6 to10 times. Hence, it is evident that the respondents those who have accessed the internet for 11 to 15 times have collected the details about various services and location of the service providers and availability of various schemes.

With respect to the internet speed, the respondents who have accessed the internet at super fast speed have the highest mean score of 40.75 and the lowest mean score of 39.39 has been found among the respondents who have accessed the internet at moderate speed. However, it is evident that the respondents who have accessed the internet at superfast speed have used 4G network to access high speed data.

The mean score has been found for the network access in Phone/I Pad /Tablet, the respondents who have accessed Idea network have the highest mean score of 40.87 and the least mean score of 38.52 has been found among the respondents who have accessed Vodafone network. Hence, it is found that the respondents who have used Idea network have received the best network plan to access data from the network company.

Regarding the network access in Personal computer /Laptop, the respondents who have accessed AirCel network have the highest mean score of 42.40. Whereas, the lowest mean score of 34.50 has been found among the respondents who have accessed MTS network. It is found that the respondents who have accessed Aircel network have enjoyed unlimited data for the broadband and WiFi connection.

The mean score has been found for the frequently used browsers, the respondents who have used Internet Explorer browser have the highest level of impact (Mean 43.38) and the lowest level of impact (Mean 41.77) has been found among the respondents who

have used Mozilla Firefox. Hence, it is found that the respondents have widely used Internet explorer for immediate access.

With respect to the popularly used search engine, the highest mean score of 43.52 has been found among the respondents who have used Yahoo search engine and the lowest mean score of 40.25 has been found among the respondents who have used Bing search engine. Hence, it is evident that the Yahoo search engine is the oldest search engine, which has been widely accessed by the elder women consumers.

The respondents who have accessed the internet channel advertisements for 4 Years have the highest mean score of 43.97 and the least mean score of 42.45 has been found among the respondents who have accessed the internet channel advertisements for less than 1 year. The respondents have accessed the internet channel advertisements for 4 years because it guides them to choose right services based on their requirements and to avail exiting offers and discounts.

The ANOVA result has indicated that the internet usage, such as, place of internet access, frequency of internet access, frequency of internet access per day, internet speed, network access in Phone/I pad /Tablet, network access in Personal Computer/Laptop, frequently used browsers, popularly used search engines and the period of watching internet channel advertisements have no significant difference with the impact of internet advertisements on access of services Hence, the null hypothesis is accepted. The numbers of time of internet access per day has a significant difference with the impact of internet advertisements on access of services at 1 per cent level. Hence, the null hypothesis is rejected.

### **Consumer Satisfaction towards the Internet Advertisements on Purchase Decisions**

Mean ratings is found for the statements related to the level of satisfaction towards internet advertisements regarding purchase decisions. The ratings have been assigned as *5 - Highly Satisfied, 4 - Satisfied, 3 - Neutral, 2 - Dissatisfied and 1-Highly Dissatisfied* for all the statements. The table 6.7 shows the mean ratings for all the statements.

**Table 6.7****Consumer Satisfaction towards Internet Advertisements on Purchase Decisions**

Statements	N	Minimum	Maximum	Mean	S.D
<i>It creates brand awareness through advertisements</i>	400	2	5	4.32	.58
It is more effective to identify more variety of the products	400	2	5	4.20	.57
It helps me to identify the best products and make use of them	400	3	5	4.17	.65
It creates loyalty among consumers	400	2	5	3.77	.72
It creates trustworthiness about various products	400	1	5	3.72	.73
It gives exact price for the product	400	2	5	3.89	.81
It makes me to enjoy special discounts on special occasions	400	1	5	4.02	.76
It builds online reputation	400	2	5	3.94	.81
It saves my time, money and energy	400	2	5	4.17	.76
It highly influences the attitude of the consumers	400	1	5	3.89	.80
Previous consumer feedback are more valuable	400	1	5	4.00	.78
Expert advice helps me in decision making process	400	1	5	3.89	.84
It encourages me to share my experience	400	1	5	3.73	.83
It provides repurchase experience	400	1	5	3.86	.86

(Source: Computed)

Majority of the consumers have been satisfied with the statement ‘It creates brand awareness through advertisements’ (Mean 4.32) followed by ‘It is more effective to identify more variety of the products’ (Mean 4.20), ‘It helped me to identify the best products and make use of them’ and ‘It saves my time, money and energy’ (Mean 4.17), ‘It makes me to enjoy special discounts on special occasions’ (Mean 4.02), ‘Previous

consumer feedback are more valuable' (Mean 4.00), 'It builds online reputation' (Mean 3.94), 'It highly influences the attitude of the consumers', 'Expert advice helps me in decision making process' and 'It gives exact price for the product' (Mean 3.89), 'It provides repurchase experience' (Mean 3.86), 'It creates loyalty among consumers' (Mean 3.77), 'It encourages me to share my experience' (Mean 3.73) and the lowest mean score of 3.72 has been found for the statement 'It creates trustworthiness about various products'. It is inferred that the women consumers are 'Satisfied' with all the statements regarding the level of satisfaction towards internet advertisements on purchase decisions.

### **ANOVA – Demographic Factors Vs Satisfaction Score on Purchase Decisions**

ANOVA / t-test has been used to test whether the scores obtained for 'Consumer Satisfaction on Purchase Decisions' has differed significantly among the respondents classified based on 'Demographic Factors' with the following null hypothesis:

*H<sub>0</sub>: The consumer satisfaction score towards internet advertisements on purchase decisions do not differ significantly among the demographic factors.*

**Table 6.8**

### **ANOVA – Demographic Factors Vs Satisfaction Score on Purchase Decisions**

<b>Demographic Factors</b>	<b>Classifications</b>	<b>Mean</b>	<b>S.D</b>	<b>No.</b>	<b>t</b>	<b>F</b>	<b>Table Value</b>	<b>Sig</b>
<b>Age</b>	18 - 20 years	52.29	6.01	45	-	6.133	2.395	**
	21-30 years	56.07	5.50	150				
	31-40 years	55.97	5.72	117				
	41-50 years	55.13	4.67	69				
	<b>Above 50 years</b>	<b>58.63</b>	<b>4.76</b>	<b>19</b>				
<b>Educational Qualification</b>	Higher secondary	52.92	4.70	36	-	4.106	2.831	**
	Graduates	55.73	5.94	161				
	Post Graduates	55.19	5.80	94				
	<b>Professionals</b>	<b>56.56</b>	<b>4.90</b>	<b>109</b>				

<b>Demographic Factors</b>	<b>Classifications</b>	<b>Mean</b>	<b>S.D</b>	<b>No.</b>	<b>t</b>	<b>F</b>	<b>Table Value</b>	<b>Sig</b>
<b>Marital Status</b>	<b>Married</b>	<b>55.93</b>	<b>5.24</b>	<b>274</b>	1.898	-	1.966	Ns
	Unmarried	54.79	6.27	126				
<b>Occupation</b>	College Students	54.49	6.45	93	-	1.991	2.237	Ns
	Private Employees	56.38	5.83	97				
	<b>Government Employees</b>	<b>56.66</b>	<b>5.02</b>	<b>71</b>				
	Professionals	55.75	4.44	44				
	Self-Employed	55.20	5.42	54				
	House wives	54.54	4.88	41				
<b>Earning Members in the Family</b>	One	55.18	5.55	138	-	1.976	2.627	Ns
	Two	55.30	5.83	176				
	<b>Three</b>	<b>57.09</b>	<b>5.07</b>	<b>64</b>				
	More than three	55.86	5.09	22				
<b>Family Monthly Income</b>	Upto Rs.20,000	55.08	5.50	66	-	2.006	2.627	Ns
	Rs.20,001- Rs.40,000	54.34	6.91	68				
	Rs.40,001- Rs.60,000	55.78	4.95	134				
	<b>Above Rs.60,000</b>	<b>56.26</b>	<b>5.47</b>	<b>132</b>				

(Source: Computed) (Ns- Not significant) (\*\* - Significant at 1 percent level)

It is observed from 6.8 that the respondents who belong to the age group of above 50 years have the highest level of satisfaction (Mean 58.63) and the lowest level of satisfaction (Mean 52.29) has been found among the respondents who belong to the age group of 18 - 20 years.

With respect to the educational qualification, the highest mean score of 56.56 has been found among the professionals and the least mean score of 52.92 has been identified among the higher secondary students. Hence, it is found that the respondents are professionals because they want to save time to take immediate decisions regarding purchase of products.

Regarding the marital status, the highest mean score of 55.93 has been found among the married respondents and the lowest mean score of 54.79 has been identified among the unmarried respondents.

With respect to the occupational status, the Government employees have the highest mean score of 56.66 and the lowest mean score of 54.49 has been identified among the College students.

With respect to the earning members in the family, the respondents who have three earning members in the family have the highest level of satisfaction (Mean 57.09) and the respondents who have one earning member in the family have the lowest level of satisfaction (Mean 55.18).

The respondents who have a family monthly income of above Rs.60,000 have the highest mean score of 56.26 and the least mean score of 54.34 has been identified among the respondents who have a family monthly income between Rs.20,001 to Rs.40,000.

The ANOVA result has indicated that the demographic factors, such as, occupation, earning members in the family and family monthly income have no significant difference with the level of satisfaction towards internet advertisements on purchase decisions. Hence, the null hypothesis is accepted. Age and educational qualification have a significant difference with the level of satisfaction towards internet advertisements on purchase decisions at 1 per cent level of significance. Hence, the null hypothesis is rejected.

The t-test result shows that there is no significant difference in the satisfaction score of the internet advertisements on purchase decisions between married and unmarried. Hence, the null hypothesis is accepted.

#### **ANOVA – Internet Usage Vs Satisfaction Score on Purchase Decisions**

ANOVA has been used to test whether the scores obtained for ‘Consumer Satisfaction on Purchase Decisions’, has differed significantly among the respondents classified based on ‘Internet Usage’ with the following null hypothesis:

*H<sub>0</sub>: The consumer satisfaction score towards internet advertisements on purchase decisions do not differ significantly among the internet usage.*

**Table 6.9**

**ANOVA – Internet Usage Vs Satisfaction Score on Purchase Decisions**

<b>Internet Usage</b>	<b>Classifications</b>	<b>Mean</b>	<b>S.D</b>	<b>No.</b>	<b>F</b>	<b>Table Value</b>	<b>Sig</b>
<b>Place of Internet Access</b>	Home	55.85	5.35	126	1.439	2.395	Ns
	<b>College library</b>	<b>57.55</b>	<b>5.66</b>	<b>11</b>			
	Internet center	52.62	7.70	13			
	Any time Any where	55.46	5.58	240			
	Working place	56.60	5.66	10			
<b>Frequency of Internet Access</b>	Daily	55.76	5.56	348	2.797	2.395	*
	<b>Weekly</b>	<b>56.70</b>	<b>4.68</b>	<b>23</b>			
	Fortnightly	54.25	9.94	8			
	Monthly	52.00	4.80	7			
	Very rarely	51.79	3.02	14			
<b>Frequency of Internet Access per Day</b>	Less than 1 hour	54.56	4.89	43	.689	2.395	Ns
	1 hour	55.22	5.43	77			
	2 hours	55.85	5.34	87			
	<b>3 hours</b>	<b>56.19</b>	<b>5.45</b>	<b>68</b>			
	More than 4 hours	55.62	6.19	125			
<b>No. of Times of Internet Access per Day</b>	1 to 5 times	55.68	5.43	148	7.225	4.659	**
	6 to10 times	54.09	5.44	116			
	<b>11to15 times</b>	<b>56.73</b>	<b>5.67</b>	<b>136</b>			
<b>Internet Speed</b>	<b>Super Fast</b>	<b>56.21</b>	<b>5.93</b>	<b>100</b>	1.570	2.627	Ns
	Fast	55.63	5.55	225			
	Moderate	54.24	5.59	59			
	Low	55.75	3.53	16			



Internet Usage	Classifications	Mean	S.D	No.	F	Table Value	Sig
Network Access in Phone\ I Pad \Tablet	BSNL	54.57	5.26	42	1.659	2.037	Ns
	Airtel	56.35	5.49	130			
	AirCel	54.16	6.65	43			
	Reliance	56.73	4.04	48			
	MTS	55.42	4.32	12			
	Vodafone	55.92	6.78	25			
	DoCoMo	55.76	4.93	17			
	<b>Idea</b>	<b>57.65</b>	<b>3.69</b>	<b>23</b>			
Network Access in Personal Computer \Laptop	BSNL	52.52	6.08	27	1.681	2.356	Ns
	Airtel	54.52	6.16	21			
	<b>AirCel</b>	<b>60.80</b>	<b>5.50</b>	<b>5</b>			
	Reliance	54.00	6.08	12			
	MTS	54.50	2.12	2			
	DoCoMo	55.00	4.62	4			
Frequently Used Browsers	Google Chrome	55.79	5.51	264	3.553	2.627	*
	Mozilla Firefox	53.37	5.13	35			
	Internet Explorer	53.77	6.64	26			
	<b>UC Browser</b>	<b>56.48</b>	<b>5.45</b>	<b>75</b>			
Popularly Used Search Engines	Google	55.54	5.48	343	2.265	2.395	Ns
	Yahoo	57.32	6.18	25			
	MSN	52.75	8.49	12			
	<b>Bing</b>	<b>58.50</b>	<b>3.12</b>	<b>8</b>			
	Ask	53.75	4.14	12			
Period of Watching Internet Channel Advertisements	Less than 1 year	54.96	5.42	80	1.975	2.395	Ns
	2 years	55.02	5.29	154			
	<b>3 years</b>	<b>56.81</b>	<b>5.77</b>	<b>99</b>			
	4 years	56.24	6.09	33			
	Above 4 years	55.29	6.07	34			

(Source: Computed) (Ns- Not significant) (\*\* - at 1 percent level) (\* - at 5 percent level)

It is observed from table 6.9 that the respondents who have accessed the internet from college library have the highest mean score of 57.55 and the least mean score of 52.62 has been found among the respondents who have accessed the internet at internet center. Hence, it is found that the respondents who have used the internet from their college library have a higher level of impact. So, it shows that the respondents are college students.

With respect to the frequency of internet access, the respondents who have accessed the internet weekly once have the highest mean score of 56.70 and the least mean score of 51.79 has been found among the respondents who have accessed the internet very rarely. It is evident that the respondents have accessed the internet weekly once to gather information about the various products during weekends.

With respect to the frequency of internet access per day, the respondents who have accessed the internet for 3 hours have the highest level of satisfaction (Mean 56.19) and the lowest level of satisfaction (Mean 54.56) has been found among the respondents who have accessed the internet for less than 1 hour. It is inferred that the respondents have used the internet weekly once. So, they have accessed the internet continuously for three hours.

Among the respondents, the highest mean score of 56.73 has been found for the respondents who have accessed the internet for 11to15 times and the least mean score of 54.09 has been found for the respondents who have accessed the internet for 6 to 10 times. Hence, the respondents have used the internet for 11 to 15 times in a day, because they have faced the network issues during the internet access.

The respondents who have accessed the internet at super fast speed have the highest mean score of 56.21 and the least mean score of 54.24 has been found among the respondents who have accessed the internet at moderate speed. However, it is evident that the respondents who have accessed the internet at moderate speed have used 3G and 2G network plan and the respondents who have used 4G network have accessed the internet at super fast speed.

With respect to the network access in Phone/ Ipad/Tablet, the respondents who have used Idea network have the highest mean score of 57.65 and the lowest mean score of 54.16 has been found among the respondents who have used AirCel network. Hence, the respondents have accessed the Idea Network because the company offers new plans and schemes to regain their position in the market.

Regarding the network access in Personal Computer / Laptop, the respondents who have used AirCel network have the highest mean score 60.80 and the respondents who have used BSNL network have the least mean score of 52.52. Hence, the respondents have used Aircel network because the company offers unlimited data and calls at lower cost.

The mean score is found for the frequently used browsers, the respondents who have used UC Browser have the highest mean score of 56.48 and the lowest mean score of 53.37 has been found among the respondents who have used Mozilla Firefox. Hence, the respondents have been satisfied with the UC browser because it gives easy access to all the internet channels.

Regarding the popularly used search engines, the highest mean score of 58.50 has been found among the respondents who have used Bing search engine and the least mean score of 52.75 has been found among the respondents who have used MSN search engine. Hence, the respondents have used Bing search engine because it provides brief information related to products.

With respect to the period of watching internet channel advertisement, the respondents who have accessed internet channel advertisements for 3 Years have the highest level of satisfaction (Mean 56.81) and the lowest level of satisfaction (Mean 54.96) has been found among the respondents who have accessed internet channel advertisements for less than 1 year. Hence, it is found that the respondents have accessed internet channel advertisement for 3 years because they want to choose the products based on to their needs and wants.

The ANOVA result has indicated that the internet usage, such as, place of internet access, frequency of internet access per day, internet speed, network access in Phone\I pad \Tablet, network access in Personal Computer\Laptop, popularly used search engine and period of watching internet channel advertisements do not have a significant difference with the level of satisfaction towards internet advertisements on purchase decisions. Hence, the null hypothesis is accepted. However, in case of frequency of internet access and frequently used browsers, there exists a significant difference with the level of satisfaction towards internet advertisements on purchase decisions at 5 per cent level. Hence, the null hypothesis is rejected. The number of times of internet access per day has a significant association with the level of satisfaction towards internet advertisements on purchase decisions at 1 per cent level. Hence, the null hypothesis is rejected.

### Consumer Satisfaction towards Internet Advertisements on Access of Services

The respondents have been asked to rate their level of satisfaction regarding the statements relating to consumer satisfaction towards internet advertisements on access of services. The respondents have been asked to express their opinion on a five point Likert scale given as Highly Satisfied to Highly Dissatisfied from 1 to 5. The ratings have been assigned as *5 - Highly Satisfied, 4 - Satisfied, 3 - Neutral, 2 - Dissatisfied and 1-Highly Dissatisfied* for all the statements. The table 6.13 shows the mean ratings for all the statements.

**Table 6.10**

#### Consumer Satisfaction towards Internet Advertisement on Access of Services

Statements	N	Minimum	Maximum	Mean	S.D
<i>Immediate use of offers helps me to access services easily</i>	400	1	5	4.17	.62
It reduces stress and risk in availing services	400	2	5	4.03	.73
It gives exact fee for the services	400	1	5	3.88	.75
Special discounts on fee for accessing services can be known immediately	400	2	5	3.96	.57
It creates loyalty among consumers	400	1	5	3.84	.77
It helps to enhance the quality of services offered and protects environmental health	400	1	5	4.04	.70
It improves my experience towards certain services	400	1	5	4.06	.78
It gives opportunities to share my experience	400	1	5	4.05	.69
It saves my time, money and energy	400	2	5	4.10	.77
Previous consumer feedback are more valuable	400	2	5	3.95	.75
It creates positive attitude towards some of the services	400	1	5	4.07	.68
It is a more powerful area for knowledge sharing and helps me to resolve all my queries	400	2	5	3.92	.70
It makes me more efficient in making independent decisions towards access of services	400	2	5	4.03	.73
It make me repeatedly to access some of the services	400	1	5	4.00	.74

(Source: Computed)

The highest mean of 4.17 has been found for the statement that ‘Immediate use of offers helps me to access services easily’ followed by ‘It saves my time, money and energy’ (Mean 4.10), ‘It creates positive attitude towards some of the services’ (Mean 4.07), ‘It improves my experience towards certain services’ (Mean 4.06). ‘It gives opportunities to share my experience’ (Mean 4.05), ‘It helps to enhance the quality of services offered and protects environmental health’ (Mean 4.04), ‘It makes me more efficient in making independent decisions towards access of services’ and ‘It reduces stress and risk in availing services’ (Mean 4.03), ‘It make me repeatedly to access some of the services’ (Mean 4.00), ‘Special discounts on fee for accessing services can be known immediately’ (Mean 3.96), ‘Previous consumer feedback are more valuable’ (Mean 3.95), ‘It is a more powerful area for knowledge sharing and helps me to resolve all my queries’ (Mean 3.92), ‘It gives exact fee for the services’ (Mean 3.88) and the lowest mean of 3.84 has been found for the statement that ‘It creates loyalty among consumers’ .It is inferred that, majority of the consumer are satisfied with all the statements with internet advertisements regarding access of services.

#### **ANOVA – Demographic Factors Vs Satisfaction Score on Access of Services**

ANOVA / t-test has been used to test whether the scores obtained for ‘ Consumer Satisfaction on Access of Services’ has differed significantly among the respondents classified based on ‘Demographic Factors’ with the following null hypothesis:

*H<sub>0</sub>: The consumer satisfaction score towards internet advertisements on access of services do not differ significantly among the demographic factors.*

**Table 6.11**

#### **ANOVA – Demographic Factors Vs Satisfaction Score on Access of Services**

<b>Demographic Factors</b>	<b>Classifications</b>	<b>Mean</b>	<b>S.D</b>	<b>No.</b>	<b>t</b>	<b>F</b>	<b>Table Value</b>	<b>Sig</b>
<b>Age</b>	18 - 20 years	54.13	4.50	45	-	2.850	2.395	*
	21-30 years	56.09	5.39	150				
	31-40 years	56.50	4.86	117				
	41-50 years	56.12	5.04	69				
	<b>Above 50 years</b>	<b>58.42</b>	<b>5.36</b>	<b>19</b>				

Demographic Factors	Classifications	Mean	S.D	No.	t	F	Table Value	Sig
Educational qualification	Higher secondary	54.83	5.71	36	-	1.220	2.816	Ns
	Graduates	55.91	4.97	161				
	Post Graduates	56.38	5.16	94				
	<b>Professionals</b>	<b>56.58</b>	<b>5.13</b>	<b>109</b>				
Marital status	<b>Married</b>	<b>56.23</b>	<b>5.17</b>	<b>274</b>	0.697	-	1.966	Ns
	Unmarried	55.84	5.06	126				
Occupation	College Students	55.24	4.96	93	-	1.690	2.237	Ns
	Private Employees	56.28	5.36	97				
	<b>Government Employees</b>	<b>57.34</b>	<b>4.83</b>	<b>71</b>				
	Professionals	55.27	5.29	44				
	Self-Employed	56.00	4.73	54				
	House wives	56.56	5.56	41				
Earning members in the family	One	56.01	5.47	138	-	.767	2.627	Ns
	Two	55.87	4.94	176				
	<b>Three</b>	<b>56.98</b>	<b>5.05</b>	<b>64</b>				
	More than three	56.05	4.73	22				
Family Monthly Income	Upto Rs.20,000	55.05	4.55	66	-	1.345	2.627	Ns
	Rs.20,001- Rs.40,000	55.94	6.25	68				
	Rs.40,001- Rs.60,000	56.27	5.00	134				
	<b>Above Rs.60,000</b>	<b>56.55</b>	<b>4.87</b>	<b>132</b>				

(Source: Computed) (Ns- Not significant) (\* - Significant at 5 percent level)

It is found from the table 6.11 that the highest mean score of 58.42 has been found among the respondents who belong to the age group of above 50 years and the lowest mean score of 54.13 has been found among the respondents who belong to the age group of 18 - 20 years. Hence, the consumers who are in the age group of above 50 years want to access services according to their requirements.

With respect to the educational qualification, the highest mean score of 56.58 has been found among the professionals. Whereas, the least mean score of 54.83 has been found among the higher secondary students.

Regarding the marital status, the married respondents have the highest level of satisfaction (Mean 56.23), whereas, the lowest level of satisfaction (Mean 55.84) has been found among the unmarried respondents. Hence, it is inferred that the married respondents are the decision maker of their family and it helps them to save time and money.

Regarding the occupational status, the Government employees have the highest mean score of 57.43 and the lowest mean score of 55.24 has been found among the college students. It is inferred that the Government Employees have widely watched the internet advertisements to take immediate decision regarding access of services.

With respect to the earning members in the family, the respondents who have three earning members in the family have a higher level of satisfaction (Mean 56.98) and the lower level of satisfaction (Mean 55.87) has been found among the respondents who have two earning members in the family. Hence, it is identified that the respondents who have three earning members in the family have widely watched the internet advertisements and to gather knowledge about various services.

The respondents who have a family monthly income of above Rs.60,000 have the highest mean score of 56.55 and the lowest mean score of 55.05 has been identified among the respondents who have a family monthly income up to Rs.20,000. Hence, it is inferred that the respondents have a family monthly income of above of Rs. 60,000 because they are Government employees.

The ANOVA result has indicated that the educational qualification, occupation, earning members in the family and family monthly income have no significant difference with the level of satisfaction towards internet advertisements on access of services. Hence, the null hypothesis is accepted. Age has a significant difference with the level of satisfaction towards internet advertisements on access of services at 5 per cent level. Hence, the null hypothesis is rejected.

The t-test result shows that there is no significant difference in the satisfaction score towards internet advertisements on access of service between married and unmarried. Hence, the null hypothesis is accepted.

### ANOVA – Internet Usage Vs Satisfaction Score on Access of Services

ANOVA has been used to test whether the scores obtained for ‘Consumer Satisfaction on Access of Services’, has differed significantly among the respondents classified based on ‘Internet Usage’ with the following null hypothesis:

*H<sub>0</sub>: The consumer satisfaction score towards internet advertisements on access of services do not differ significantly among the internet usage.*

**Table 6.12**

### ANOVA – Internet Usage Vs Satisfaction Score on Access of Service

Internet Usage	Classifications	Mean	S.D	No.	F	Table Value	Sig
<b>Place of Internet Access</b>	Home	56.88	5.13	126	1.797	2.395	Ns
	College library	54.45	6.73	11			
	Internet center	54.31	5.30	13			
	Any time Any where	55.81	5.06	240			
	<b>Working place</b>	<b>57.50</b>	<b>3.81</b>	<b>10</b>			
<b>Frequency of Internet Access</b>	Daily	56.08	5.12	348	2.135	2.395	Ns
	<b>Weekly</b>	<b>58.57</b>	<b>4.18</b>	<b>23</b>			
	Fortnightly	54.38	4.93	8			
	Monthly	54.43	4.16	7			
	Very rarely	54.43	6.48	14			
<b>Frequency of Internet Access per Day</b>	Less than 1 hour	55.95	5.41	43	.731	2.395	Ns
	1 hour	55.39	5.18	77			
	2 hours	56.53	4.78	87			
	<b>3 hours</b>	<b>56.65</b>	<b>4.70</b>	<b>68</b>			
	More than 4 hours	56.01	5.48	125			
<b>No. of Times of Internet Access per Day</b>	1to5 times	56.11	5.24	148	3.417	3.018	*
	6to10 times	55.19	4.60	116			
	<b>11to15 times</b>	<b>56.88</b>	<b>5.35</b>	<b>136</b>			
<b>Internet Speed</b>	<b>Super Fast</b>	<b>56.57</b>	<b>5.09</b>	<b>100</b>	.604	2.627	Ns
	Fast	56.08	5.09	225			
	Moderate	55.44	5.73	59			
	Low	56.06	3.49	16			



Internet Usage	Classifications	Mean	S.D	No.	F	Table Value	Sig
<b>Network Access in Phone\ I Pad \Tablet</b>	BSNL	55.26	5.62	42	2.587	2.037	*
	Airtel	55.86	4.95	130			
	AirCel	54.79	5.33	43			
	<b>Reliance</b>	<b>58.48</b>	<b>4.39</b>	<b>48</b>			
	MTS	55.67	4.72	12			
	Vodafone	56.88	6.42	25			
	DoCoMo	57.06	3.19	17			
	Idea	57.65	4.75	23			
<b>Network Access in Personal Computer \Laptop</b>	BSNL	54.56	3.90	27	.506	2.356	Ns
	Airtel	55.14	4.71	21			
	<b>AirCel</b>	<b>58.00</b>	<b>4.06</b>	<b>5</b>			
	Reliance	55.17	7.73	12			
	MTS	57.50	2.12	2			
	DoCoMo	56.00	4.62	4			
<b>Frequently Used Browsers</b>	Google Chrome	<b>56.51</b>	<b>5.12</b>	<b>264</b>	2.314	2.627	Ns
	<b>Mozilla Firefox</b>	54.80	5.50	35			
	Internet Explorer	54.42	5.05	26			
	UC Browser	55.87	4.89	75			
<b>Popularly Used Search Engines</b>	Google	56.17	5.10	343	1.718	2.395	Ns
	<b>Yahoo</b>	<b>57.64</b>	<b>5.65</b>	<b>25</b>			
	MSN	54.42	5.84	12			
	Bing	54.25	4.53	8			
	Ask	53.92	3.70	12			
<b>Period of Watching Internet Channel Advertisements</b>	<b>Less than 1 year</b>	<b>56.69</b>	<b>5.53</b>	<b>80</b>	1.196	2.395	Ns
	2 years	55.56	4.52	154			
	3 years	56.67	5.40	99			
	4 years	56.33	5.87	33			
	More than 4 years	55.32	5.16	34			

(Source: Computed) (Ns- Not Significant) (\*-Significant at 5 per cent level)

It is observed from the table 6.12 that the respondents who have accessed the internet from working place have the highest mean score of 57.50 and the least mean score of 54.31 has been found for the respondents who have accessed the internet at

internet center. It reveals that the respondents have used the internet from their working place because the respondents are professionals.

Regarding the frequency of internet access, the respondents who have accessed the internet weekly once have the highest level of satisfaction (Mean 58.57) and the respondents who have accessed the internet fortnightly have the lowest level of satisfaction (Mean 54.38). It is shown that the respondents have used the internet weekly once because they are government employees and they don't have much time to use internet from their working place.

With respect to the frequency of internet access per day, the highest mean score of 56.65 has been found among the respondents who have accessed the internet for 3 hours in a day and the lowest mean score of 55.39 has been found among the respondents who have accessed the internet for 1 hour in a day. Hence, it is inferred that the respondents have widely used the internet continuously for 3 hours which implies that they have used the internet for their work purpose.

With respect to the number of times of internet access per day, the highest mean score of 56.88 has been found among the respondents who have accessed the internet for 11 to 15 times in a day and the respondents who have accessed the internet for 6 to 10 times in a day have the lowest mean score of 55.19. Hence, it is inferred that the respondents have accessed the internet for 11 to 15 times in a day, due to fluctuation in the network speed.

With respect to the internet speed, the respondents who have accessed the internet at super fast have the highest mean score of 56.57 and the lowest mean score of 55.44 has been found among the respondents who have accessed the internet at moderate speed. Hence, the respondents have accessed the internet at super fast speed because they want to gather information related to various service offered by the company.

With respect to network access in Phone/ I pad /Tablet, the respondents who have accessed Reliance network have the highest mean score of 58.48 and the lowest mean score of 54.79 has been found among the respondents who have used AirCel network. It is shown that the respondents have used reliance network to access the internet at super fast speed.

Regarding the network access in personal computer / laptop, the respondents who have accessed AirCel network have the highest mean score of 58.00 and the least mean score of 54.56 has been found among the respondents who have accessed BSNL network. It is inferred that the respondents have used Aircel network because it provides low cost internet plan to the consumers.

With respect to the frequently used browsers, the respondents who have used Google Chrome browser have the highest mean score of 56.51 and the lowest mean score of 54.42 has been found among the respondents who have used Internet Explorer. It is inferred that the respondents have used Google Chrome browser to search wide variety of services in a quick time.

Regarding the popularly used search engine, the highest mean score of 57.64 has been found among the respondents who have used Yahoo search engine and the respondents who have used Ask search engine have the lowest mean score of 53.92. It is observed that the respondents have widely used Yahoo search engine because it helps the elderly women consumers to gather information about various services.

With respect to the period of watching internet channel advertisements, the respondents who have accessed the internet channel advertisements for less than 1 year have the highest mean score of 56.69 and the lowest mean score of 55.32 has been found for respondents who have accessed the internet channel advertisement for more than 4 years. Hence, it is inferred that the internet channel advertisements helps the women consumers to take immediate decision regarding access of services.

The ANOVA results has indicated that the internet usage, such as, place of internet access, frequency of internet access, frequency of internet access per day, internet speed, network access in personal computer\laptop, frequently used browsers, popularly used search engines and period of watching internet channel advertisements have no significant difference with the level of satisfaction towards the internet advertisements on access of services. Hence, the null hypothesis is accepted. The number of times of internet access per day and network accessed in phone/I pad /Tablet have a significant difference with the level of satisfaction towards internet advertisements on access of services at 5 per cent level. Hence, the null hypothesis is rejected.

### Consumer Satisfaction towards Internet Channel Advertisements

The respondents have been asked to rate their level of satisfaction regarding the statements relating to consumer satisfaction through the internet channel advertisements. The respondents have been asked to express their opinion on a five point Likert scale given as Highly Satisfied to Highly Dissatisfied from 1 to 5. The ratings have been assigned as *5 - Highly Satisfied, 4 - Satisfied, 3 - Neutral, 2 - Dissatisfied and 1-Highly Dissatisfied and 0 –Not answered* for all the statements. The table 6.13 shows the mean rating for all the statements.

**Table 6.13**

#### Consumer Satisfaction towards Internet Channel Advertisements

<b>Internet Channel Advertisements</b>	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>S.D</b>
E-mail advertisement	<b>301</b>	0	5	3.42	1.98
Social Media advertisement	<b>382</b>	0	5	4.32	1.07
Display advertisement	<b>214</b>	0	5	2.32	2.19
Search advertisement	<b>252</b>	0	5	2.70	2.10
Website advertisement	<b>263</b>	0	5	2.85	2.12
Mobile application advertisement	<b>277</b>	0	5	3.10	2.05

(Source: Computed)

Majority of the consumers are satisfied with the ‘Social media advertisement’ displayed in the social networking sites have the highest mean score of 4.32 followed by ‘Email advertisement’ (Mean 3.42), ‘Mobile application advertisement’ (Mean 3.10), ‘Website advertisement’ (2.85) and ‘Search advertisement’ (Mean 2.70) and the least mean score of 2.32 has been found for the ‘display advertisement’. Hence, It is inferred that the majority of the consumers are satisfied with the ‘Social media advertisement’ because in the current world every person has accessed social networking sites to connect with their friends and relatives and to share their opinion in this site to interact with the consumers to upgrade their standards regarding products and services.

### Difficulties Faced While Watching Internet Advertisements

The table 6.14 presents that mean rank has been obtained for the difficulty faced by the respondents while accessing and watching the internet advertisements. The major difficulty has given rank 1 and the least difficulty has given rank 10.

**Table 6.14**

#### Difficulties Faced While Accessing and Watching Internet Advertisements

Particular	Mean Rank	Actual rank
<i>Network speed variation</i>	<b>3.58</b>	<b>1</b>
Difficulty in loading web pages	4.44	3
Limited internet access	4.82	4
Server problem	4.12	2
Large advertisement message is irritating	5.74	5
It affects my freedom of choice	6.44	8
It sometimes provides false information	6.21	6
It sometimes manipulates me to buy products and access of services	6.76	10
Incomplete description about advertisement	6.59	9
Unpleasant advertisements	6.31	7

(Source: Computed)

‘Network speed variation’ has been the major difficulty faced by the consumer while accessing internet (Mean 3.58), followed by ‘Server problem’ (Mean 4.12), ‘Difficulty in loading web pages’(Mean 4.44), ‘Limited internet access’(Mean 4.82), ‘Large advertisement message is irritating’(Mean 5.74),‘It sometimes provides false information’(Mean 6.21),‘Unpleasant advertisements’(Mean 6.31),‘It affects my freedom of choice’ (Mean 6.44), ‘Incomplete description about advertisement’ (Mean 6.59), and ‘It sometimes manipulates me to buy product and access services’ (Mean 6.76).Hence, it is inferred that, ‘Network speed variation’ has been the major difficulty faced by the consumers while accessing the internet (Mean 3.58).

## **Kendall's Coefficient of Concordance**

Kendall's Co-Efficient of Concordance has been used to find whether the ranks assigned by the respondents have any similarities. The Kendall's (W) vary between 0 and 1. Higher the value of (W), higher the similarity among the respondents in assigning ranks.

**Table 6.14 (a)**

### **Kendall's Coefficient of Concordance - Difficulties Faced While Accessing and Watching Internet Advertisements**

Kendall's W	.146
-------------	------

(Source: Computed)

Kendall's (W) 0.146 has been found in the table 6.14 (a) explains that there is less similarity existing among the respondents in the order of assigning the ranks for the difficulty faced by the women consumers while accessing and watching the internet advertisements.

## **Factor Analysis for Consumer Satisfaction on Purchase Decisions**

The factor analysis has been applied to summarize the information contained in the number of original variables into a smaller set of new composite dimensions (Factors) with minimum loss of information.

The factor analysis has been applied to identify the underlying dimension in the set of statements related to the consumer satisfaction towards internet advertisements in taking purchase decisions.

Factor analysis has been done in four steps:

1. First, the correlation matrix for all the variables is computed. Variables that do not appear to be related to other variables can be identified from the matrix. The relevance of the factor model can also be calculated.
2. Factor extraction has been the second step. Number of factors necessary to represent the data and the method of calculating them has been determined. Also, how well the chosen model fits the data has been ascertained.

3. The factors chosen have been transformed to increase interpretability through a process of rotation.
4. Scores for each factor has been computed for all the variables and these scores have been used for further analysis.

The set of 14 statements which measure the satisfaction of the women consumers towards internet advertisements on purchase decisions have been used to find the underlying factors.

**Table 6.15**

**Consumer Satisfaction towards Internet Advertisements on Purchase Decisions**

<b>S.No.</b>	<b>Statements</b>
1.	It creates brand awareness through advertisements
2.	It is more effective to identify more variety of the product
3.	It helped me to identify the best products and make use of them
4.	It creates loyalty among consumers
5.	It creates trustworthiness about various products
6.	It gives exact price for the product
7.	It makes me to enjoy special discounts on special occasions
8.	It builds online reputation
9.	It saves my time, money and energy
10.	It highly influences the attitude of the consumers
11.	Previous consumer feedback are more valuable
12.	Expert advice helps me in decision making process
13.	It encourages me to share my experience
14.	It provides repurchase experience

(Source: Computed)

## Step 1

Correlation matrix for the variables, statements 1 to 14, have been analysed initially for possible inclusion in factor analysis.

Since one of the goals of the factor analysis is to obtain '**factors**' that has been explained by the correlations, the variables must be related to each other for the factor model to be appropriate. A closer examination of the correlation matrix has revealed that a correlation value of 0.3 (absolute value) has been taken as sufficient to explain the relationship between variables.

It is evident from correlation matrix (Appendix I) that most of the variables have been correlated with other variables. Hence, all the variables from statement 1 to statement 14 have been retained for further analysis. Further, two tests have been applied to the resultant correlation matrix to test whether the relationship among the variables have been significant or not. The two tests applied are

- 1) Bartlett's Test of Sphericity.
- 2) Kaiser-Meyer-Olkin Measure of Sampling Adequacy.

1. **Bartlett's Test of Sphericity:** It is used to test whether the correlation matrix has been an identity matrix. i.e., all the diagonal terms in the matrix have been 1 and the off-diagonal terms in the matrix has been 0. In short, it has been used to test whether the correlations between all the variables are 0.
2. **Kaiser-Meyer-Olkin (KMO):** It is used to measure the sampling adequacy which is based on the correlations and partial correlations of the variables. If the test value, or KMO measure has been closer to 1, then it has been considered appropriate to use factor analysis. If KMO has been closer to 0, then it has been acknowledged to be inappropriate to use factor analysis for the variable and data.



**Table 6.15 (a)**

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.741
Bartlett's Test of Sphericity	Approx. Chi-Square	1366.044
	Df	91
	Sig.	**

(Source: Computed) (\*\* - Significant at 1 per cent level) ( $P < 0.01$ )

Bartlett's test of sphericity shows the test value (1366.044) and the associated significance level ( $P < .01$ ) are given in table 6.15 (a) has enunciated that the correlation matrix has not been an identity matrix, i.e., there exist correlations between the variables. Hence, the factor analysis has been authentic and reliable.

Kaiser-Meyer-Olkin (KMO) test shows that the value of test statistic has been given above as 0.741 which means the factor analysis for the selected variables has been found to be more appropriate.

**Step 2**

The next step is to determine the method of factor extraction, number of initial factors and the estimate of factors. Principal Components Analysis (PCA) has been used to extract the factors. It is a method used to transform a set of correlated variables into a set of uncorrelated variables (here factors). So, the factors have been unrelated and the variables selected for each factor has been related. Next, PCA has been used to extract the number of factors required to represent the data. In order to determine the number of factors to be extracted, it has been identified that with more number of consecutive factors extracted, there exists less variability. Extraction of factors has been stopped while there has been very little 'random' variable identified.

The results from principal components analysis are given below.

In the correlation matrix, the analysis has been started from where the variances of all variables have been equal to 1. Therefore, the total variance in that matrix has been equal to the number of variables. There have been 14 variables (Statements), each with a variance of 1, and then the total variability that can potentially be extracted has been equal to 14 times 1. The variances accounted for by successive factors have been summarized in the table 6.16.

**Table 6.16**

**Total Variance Explained for Consumer Satisfaction –Purchase Decisions**

Component	Initial Eigen values			Extraction Sums of Squared Loadings (Rotated)		
	Total	Per cent of Variance	Cumulative Per cent	Total	Percent of Variance	Cumulative Per cent
1	3.953	28.233	28.233	1.978	14.131	14.131
2	1.424	10.168	38.401	1.851	13.218	27.350
3	1.296	9.260	47.661	1.753	12.521	39.871
4	1.176	8.397	56.058	1.721	12.290	52.161
5	1.034	7.385	63.443	1.580	11.283	63.443
6	.994	7.097	70.540			
7	.767	5.480	76.020			
8	.723	5.165	81.186			
9	.563	4.020	85.206			
10	.523	3.738	88.944			
11	.453	3.239	92.182			
12	.403	2.881	95.063			
13	.383	2.735	97.798			
14	.308	2.202	100.000			

(Source: Computed) (Extraction Method: Principal Component Analysis)

The table 6.16 shows that in the ‘Per Cent of Variance’ under ‘Initial Eigen values’ reveals the variance on the new factors that were successively extracted and these values are expressed as a percent of the total variance in the third column. It has been noticed that factor 1 accounts for about 28 per cent of the total variance, factor 2 about 10 per cent, factor 3 about 9 per cent and so on. As expected, the sum of the Eigen Values has been equal to the number of variables. The third column has the cumulative variance extracted. The variances extracted by the factors are called the **Eigen Values**.

The factors with Eigen Values greater than 1 have been retained for analysis. Five factors have been retained for the analysis. The total variance explained (63.44 per cent) by the five factor model in the original set of variables have been given in the Cumulative per cent of the table 6.16.

**Table 6.17**

**Component Matrix for Consumer Satisfaction –Purchase Decisions**

Statements	Component				
	1	2	3	4	5
It builds online reputation	.668	-.295	-.101	.008	-.311
It encourages me to share my experience	.654	-.282	.256	-.088	.171
Expert advice helps me in decision making process	.588	-.244	-.155	.315	.351
It saves my time money and energy	.579	.027	-.343	-.391	-.099
It provides repurchase experience	.550	-.170	.168	.418	-.361
It gives exact price for the product	.535	-.135	-.275	-.121	-.058
It highly influences the attitude of the consumers	.518	-.001	-.382	.356	-.025
It makes me to enjoy special discounts on special occasions	.509	.123	-.103	-.435	-.429
It helped me to identify the best products and make use of them	.469	.348	.278	-.392	.136
It creates brand awareness through advertisements	.281	.745	-.067	.102	.228
It is more effective to identify more variety of the product	.443	.655	-.131	.271	-.156
It creates trustworthiness about various products	.544	-.050	.606	-.212	.122
It creates loyalty among consumers	.458	.101	.536	.346	-.058
Previous consumer feedback are more valuable	.529	-.129	-.255	-.080	.586

(Source: Computed) (Extraction Method: Principal Component Analysis) 5 components extracted

The Component Matrix or Factor Matrix where PCA extracted five factors has been presented in the table 6.17. These coefficients have been used to express a standardized variable in the terms of the factors called factor loadings, since they have indicated the quantum of weight assigned to each factor. Factors with large coefficients (in absolute value) for a variable have been closely related to that variable. For example, Factor 1 has the factor with largest loading (0.668) for the statement, namely, **“It builds online reputation”**. These have been the correlations between the factors and the variables. Hence, the correlation between the first statement in the component matrix and Factor 1 has been 0.668. Thus, the factor matrix in the table 6.16 is obtained with the initially obtained estimates of factors.

### Step 3

Although the factor matrix (Component Matrix) has been obtained in the extraction phase has indicated the relationship between the factors and the individual variables, it has been usually, difficult to identify the meaningful factors based on this matrix. The Rotation phase of the factor analysis has been attempted to transfer initial matrix into one that has been easier to interpret. It has been called as the rotation of the factor matrix. Varimax Rotation has been employed to minimise the number of variables that have high loadings on a factors and has enhanced the interpretability of the factors.

The Rotated Factor Matrix using Varimax rotation has been presented in table 6.18, where each factor has identified itself with a few set of variables. The variables which have been identified with each of the factors have been sorted in the decreasing order and have been highlighted against each column and row.

**Table 6.18****Rotated Component Matrix for Consumer Satisfaction –Purchase Decisions**

Statements	Component				
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
It makes me to enjoy special discounts on special occasions	<b>.760</b>	-.127	.197	.099	.125
It saves my time money and energy	<b>.722</b>	.263	.099	-.041	.123
It builds online reputation	<b>.551</b>	.253	.110	.500	-.109
It gives exact price for the product	<b>.502</b>	.349	.036	.152	.018
Previous consumer feedback are more valuable	.169	<b>.786</b>	.196	-.140	.083
Expert advice helps me in decision making process	.047	<b>.734</b>	.089	.316	.051
It highly influences the attitude of the consumers	.246	<b>.460</b>	<b>-.214</b>	.392	.265
It creates trustworthiness about various products	.111	.101	<b>.815</b>	.199	-.021
It helped me to identify the best products and make use of them	.289	.036	<b>.617</b>	-.127	.330
It encourages me to share my experience	.228	.418	<b>.541</b>	.273	-.128
It provides repurchase experience	.163	.105	.114	<b>.783</b>	.032
It creates loyalty among consumers	-.145	.029	.481	<b>.574</b>	.218
It creates brand awareness through advertisements	-.005	.115	.131	-.096	<b>.814</b>
It is more effective to identify more variety of the product	.193	.019	-.014	.285	<b>.788</b>

(Source: Computed) (Extraction Method: Principal Component Analysis)

Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 8 iterations.

**Step 4**

Normally, from the factor results arrived, factor score coefficients has been calculated for all the variables (since each factor is a linear combination of all variables)

which have been used to calculate the factor scores for each individual variable. Since PCA has been used in extraction of initial factors and other methods have also resulted in estimating the same factor score coefficients. However, for the study, original values of the variables have been retained for further analysis.

**Table 6.19**

**Factors identified against statements relating to the Consumer Satisfaction towards Internet Advertisements - Purchase decisions**

<b>Statements</b>	<b>Factor Names</b>
It makes me to enjoy special discounts on special occasions	<i>Price Consciousness</i>
It saves my time, money and energy	
It builds online reputation	
It gives exact price for the product	
Previous consumer feedback are more valuable	<i>Product Reviews</i>
Expert advice helps me in decision making process	
It highly influences the attitude of the consumers	
It creates trustworthiness about various products	<i>Product Knowledge</i>
It helped me to identify the best products and make use of them	
It encourages me to share my experience	
It provides repurchase experience	<i>Repeat Purchase</i>
It creates loyalty among consumers	
It creates brand awareness through advertisements	<i>Brand Awareness</i>
It is more effective to identify more variety of the product	

(Source: Computed)

The table 6.20 describes the factors extracted from the fourteen variables have been reduced to five factor models. The five factors identified have been named as Price Consciousness, Product Reviews, Product Knowledge, Repeat Purchase and Brand Awareness.

### **Factor Analysis for Consumer Satisfaction in Access of Services**

The factor analysis technique has been applied in this study to find out the underlying dimensions in the set of statements related to the consumer satisfaction towards internet advertisements regarding access of services.

Factor analysis has been done in four steps:

1. First, the correlation matrix for all the variables is computed. Variables that do not appear to be related to other variables can be identified from the matrix. The relevance of the factor model can also be calculated.
2. Factor extraction has been the second step. Number of factors necessary to represent the data and the method of calculating them has been determined. Also, how well the chosen model fits the data also has been ascertained.
3. The factors chosen have been transformed to increase interpretability through a process of rotation.
4. Scores for each factor has been computed for all the variables and these scores have been used for further analysis.

The set of 14 statements which measure the consumer satisfaction of the women consumers towards internet advertisements on access of services have been used to find the underlying factors.

**Table 6.20**

**Consumer Satisfaction towards Internet Advertisements on Access of Services**

<b>S.No.</b>	<b>Statements</b>
1.	Immediate use of offers helps to access services easily
2.	It reduces stress and risk in availing services
3.	It gives exact fee for the services
4.	Special discounts on fee for accessing services can be known immediately
5.	It creates loyalty among consumers
6.	It helps to enhance the quality of services offered and protects environmental health
7.	It improves my experience towards certain services
8.	It gives opportunities to share my experience
9.	It saves my time, money and energy
10.	Previous consumer feedback are more valuable
11.	It creates positive attitude towards some of the services
12.	It is a more powerful area for knowledge sharing and helps me to resolve all my queries
13.	It makes me more efficient in making independent decisions towards accessing services
14.	It made me repeatedly access some of the services

(Source: Computed)

**Step 1**

Correlation matrix for the variables statements 1 to 14 have been analyzed initially for possible inclusion in factor analysis.

Since one of the goals of the factor analysis is to obtain '**factors**' that has been explained by the correlations, the variables must be related to each other for the factor



model should be appropriate. A closer examination of the correlation matrix has revealed that a correlation value of 0.3 (absolute value) has been taken as sufficient to explain the relationship between variables.

It is evident from correlation matrix (Appendix II) that most of the variables have been correlated with other variables. Hence, all the variables from 1 to 14 have been retained for further analysis. Further, two tests have been applied to the resultant correlation matrix to test whether the relationship among the variables have been significant or not. The two tests applied are

1. Bartlett's Test of Sphericity.
2. Kaiser-Meyer-Olkin Measure of Sampling Adequacy.

1. **Bartlett's Test of Sphericity:** It is used to test whether the correlation matrix has been an identity matrix. i.e., all the diagonal terms in the matrix have been 1 and the off-diagonal terms in the matrix has been 0. In short, it has been used to test whether the correlations between all the variables are 0.

2. **Kaiser-Meyer-Olkin (KMO):** It is used to measure the sampling adequacy which is based on the correlations and partial correlations of the variables. If the test value, or KMO measure has been closer to 1, then it has been considered appropriate to use factor analysis. If KMO has been closer to 0, then it has been acknowledged to be inappropriate to use factor analysis for the variable and data.

**Table 6.20 (a)**

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.735
Bartlett's Test of Sphericity	Approx. Chi-Square	1235.223
	df	91
	Sig.	**

(Source: Computed) (\*\* - Significant at 1 per cent level) (P<0.01)

The Bartlett's test of sphericity shows the test value 1235.223 and the associated significance level ( $P < .01$ ) are given in table 6.20 (a) has articulated that the correlation matrix has not been an identity matrix, i.e., there exist correlations between the variables. Hence, the factor analysis has been authentic and reliable.

It is evident from the table 6.20(a) that the KMO test shows the value of 0.735 which means the factor analysis for the selected variables has been found to be more appropriate.

## **Step 2**

Principal Components Analysis (PCA) has been used to extract the factors. It is a method used to transform a set of correlated variables into a set of uncorrelated variables (here factors). So, the factors are unrelated and the variables selected for each factor has been related. Next, PCA has been used to extract the number of factors required to represent the data. In order to determine the number of factors to be extracted, it has been identified that with more number of consecutive factors extracted, there exists less variability. Extraction of factors has been stopped while there has been very little 'random' variable identified.

The results from principal components analysis are given below.

In the correlation matrix, the analysis has been started from where the variances of all variables have been equal to 1. Therefore, the total variance in that matrix has been equal to the number of variables. There have been 14 variables (Statements), each with a variance of 1, and then the total variability that can potentially be extracted has been equal to 14 times 1. The variances accounted for by successive factors have been summarized in the table 6.21.

**Table 6.21****Total Variance Explained for Consumer Satisfaction –Access of Services**

Component	Initial Eigen values			Extraction Sums of Squared Loadings (Rotated)		
	Total	Per cent of Variance	Cumulative Per cent	Total	Per cent of Variance	Cumulative Per cent
1	3.720	26.575	26.575	2.210	15.785	15.785
2	1.525	10.896	37.471	2.057	14.694	30.479
3	1.329	9.491	46.962	1.847	13.196	43.675
4	1.089	7.776	54.737	1.505	10.753	54.428
5	1.042	7.439	62.177	1.085	7.749	62.177
6	.949	6.779	68.956			
7	.824	5.883	74.839			
8	.719	5.137	79.976			
9	.613	4.378	84.355			
10	.546	3.900	88.254			
11	.507	3.624	91.878			
12	.449	3.205	95.083			
13	.356	2.546	97.629			
14	.332	2.371	100.000			

(Source: Computed)

The table 6.21 shows that ‘Per Cent of Variance’ under ‘Initial Eigen values’ reveals the variance on the new factors that were successively extracted and these values are expressed as a percent of the total variance. It is noticed that factor 1 accounts for about 26 per cent of the total variance, factor 2 about 11 per cent and so on. As expected,

the sum of the Eigen Values has been equal to the number of variables. The third column contains the cumulative variance extracted. The variances extracted by the factors are called the **Eigen Values**.

The factors with Eigen Values greater than 1 have been retained for analysis. Five factors (principle components) have been retained for the analysis. The total variance explained (62.177 Per Cent) by the five factor model in the original set of variables has been presented in the column cumulative per cent of the table 6.22.

**Table 6.22**

**Component Matrix for Consumer Satisfaction –Access of Services**

Statements	Component				
	1	2	3	4	5
It improves my experience towards certain services	.676	-.032	.190	-.210	-.070
It makes me more efficient in making independent decisions towards accessing services	.597	.129	-.054	-.187	-.488
It creates loyalty among consumers	.593	-.501	-.018	-.046	-.164
It saves my time money and energy	.590	.326	-.172	-.064	.275
Previous consumer feedback are more valuable	.528	.208	.423	-.164	.222
It gives exact fee for the services	.527	-.521	-.145	.053	-.123
Special discounts on fee for accessing services can be known immediately	.366	.224	.265	-.043	.297
It reduces stress and risk in availing services	.432	-.501	.143	.254	.043
It is a more powerful area for knowledge sharing and helps me to resolve all my queries	.449	.501	-.149	.376	-.186
Immediate use of offers helps to access services easily	.495	-.259	-.593	-.037	.161
It gives opportunities to share my experience	.508	.007	.548	-.278	-.123
It creates positive attitude towards some of the services	.524	.361	-.529	-.314	.076
It made me repeatedly access some of the services	.411	.268	.096	.662	-.327
It helps to enhance the quality of services offered and protects environmental health	.428	-.119	.070	.388	.594

(Source: Computed) (Extraction Method: Principal Component Analysis) 5 components extracted.

The Component Matrix or Factor Matrix where PCA extracted five factors has been presented in the table 6.22. These coefficients have been used to express a standardized variable in terms of the factors called factor loadings, since they have indicated the quantum of weight assigned to each factor. Factors with large coefficients (in absolute value) for a variable are closely related to that variable. For example, Factor 1 has the factor with largest loading (0.676) for the statement, namely, **“It improves my experience towards certain services”**. These have been the correlations between the factors and the variables. Hence, the correlation between the first statement in the component matrix and Factor 1 is 0.676. Thus, the factor matrix in the table 6.22 is obtained with the initially obtained estimates of factors.

### Step 3

Although the factor matrix (Component Matrix) has been obtained in the extraction phase has indicated the relationship between the factors and the individual variables, it has been usually, difficult to identify the meaningful factors based on this matrix. The Rotation phase of the factor analysis has been attempted to transfer initial matrix into one that has been easier to interpret. It has been called as the rotation of the factor matrix. Varimax Rotation has been employed to minimise the number of variables that have high loadings on a factors and has enhanced the interpretability of the factors.

The Rotated Factor Matrix using Varimax rotation (Table titled Rotated Component Matrix) has been presented in table 6.22 where each factor has identified itself with a few set of variables. The variables which have been identified with each of the factors have been sorted in the decreasing order and have been highlighted against each column and row.

**Table 6.23**

**Rotated Component Matrix for Consumer Satisfaction –Access of Services**

Statements	Component				
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
It creates loyalty among consumers	<b>.761</b>	.193	.106	.019	-.057
It gives exact fee for the services	<b>.753</b>	.032	.137	.040	.015
It reduces stress and risk in availing services	<b>.641</b>	.131	-.136	.089	.263
It gives opportunities to share my experience	.230	<b>.750</b>	-.087	.038	-.163
Previous consumer feedback are more valuable	.036	<b>.728</b>	.118	.076	.163
It improves my experience towards certain services	.386	<b>.570</b>	.225	.107	-.085
Special discounts on fee for accessing services can be known immediately	-.057	<b>.498</b>	.138	.080	.261
It creates positive attitude towards some of the services	.018	.142	<b>.865</b>	.097	-.107
Immediate use of offers helps to access services easily	.504	-.160	<b>.621</b>	-.033	.158
It saves my time, money and energy	.033	.352	<b>.592</b>	.201	.218
It made me repeatedly access some of the services	.145	.079	-.071	<b>.870</b>	.075
It is a more powerful area for knowledge sharing and helps me to resolve all my queries	-.049	.110	.322	<b>.729</b>	.018
It helps to enhance the quality of services offered and protects environmental health	.246	.196	.120	.131	<b>.759</b>
It makes me more efficient in making independent decisions towards accessing services	.326	.334	.316	.338	<b>-.466</b>

(Source: Computed) (Extraction Method: Principal Component Analysis)

Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 6 iterations.

#### Step 4

Normally, from the factor results arrived, factor score coefficients has been calculated for all the variables (since each factor is a linear combination of all variables) which have been used to calculate the factor scores for each individual variable. Since PCA has been used in extraction of initial factors and other methods have resulted in estimating the factor score coefficients. However, in the study, original values of the variables have been retained for further analysis.

**Table 6.24**

**Factors identified against statements relating to the Consumer Satisfaction towards internet advertisements –Access of Services**

<b>Statements</b>	<b>Factor Names</b>
It creates loyalty among consumers	<i>Hassle free service</i>
It gives exact fee for the services	
It reduces stress and risk in availing services	
It gives opportunities to share my experience	<i>Service Knowledge</i>
Previous consumer feedback are more valuable	
It improves my experience towards certain services	
Special discounts on fee for accessing services can be known immediately	
It creates positive attitude towards some of the services	<i>Easy of access</i>
Immediate use of offers helps to access services easily	
It saves my time, money and energy	
It made me repeatedly access some of the services	<i>Repeat Access for service</i>
It is a more powerful area for knowledge sharing and helps me to resolve all my queries	
It helps to enhance the quality of services offered and protects environmental health	<i>Quality of service</i>
It makes me more efficient in making independent decisions towards accessing services	

(Source: Computed)

The tables 6.24 describes that the factors derived from the fourteen variables have been reduced to five factor models. The five factors identified have been named as Hassle Free Service, Service Knowledge, Easy of Access, Repeat access for service and Quality of service.

### **Cluster Analysis**

Cluster analysis technique has been employed to segment the women consumers who have accessed the internet into two or more similar groups. The factors developed in relation to purchase decisions, access of services and other factors relating to the internet advertisements have been included in the analysis. The main purpose of this classification is to group the women consumers into similar patterns. These groups will be further used to analyse to see whether there is an association between the clustered groups on personal details of the women consumers.

### **K-Means Cluster Analysis**

There is different classification technique to perform cluster analysis. K-means cluster has been attempted to identify relatively homogeneous groups of cases based on selected characteristics, using an algorithm that can handle large numbers of cases. However, the algorithm requires to specify the number of clusters. Number of initial cluster centers can be specified before if this information is known. Alternatively, the procedure has been repeated by increasing the number of clusters from 2 to the required number of clusters, until the procedure, differentiates well between the clusters, and the cases within each cluster are homogenous as far as possible. There are two methods for classifying the cases, either updating cluster centers iteratively or classifying only.

For the analysis, the cluster centers have been updated iteratively till the meaningful clusters derived. Once the number of clusters has been arrived, then the analysis of variance can be applied to find whether the clusters significantly differ from their group means. Since, the cases or respondents have been forced to form into similar groups, the ANOVA conducted has seen as a method of verification of the cluster procedure.



For the purpose of cluster analysis the following factors were used in previous sections were considered:

- 1) Awareness Score
- 2) Perception Score
- 3) Attitude Score
- 4) Impact Score - Purchase Decisions
- 5) Impact Score –Access of Services
- 6) Satisfaction Score - Purchase Decisions
- 7) Price Conscious
- 8) Product reviews
- 9) Product knowledge
- 10) Repeat Purchase
- 11) Brand Awareness
- 12) Hassle free service
- 13) Service Knowledge
- 14) Easy of access
- 15) Repeat Access for service
- 16) Quality of service

The classification procedure has been repeated to find some meaningful clusters. After repeated iterations and increasing the cluster groups one by one, finally 3 cluster groups were formed. The initial cluster centers have been formed by selecting the means of the groups of each variable as centers. The table given below shows the initial cluster center values for each variable.

**Table 6.25****Initial Cluster Centers**

<b>Particulars</b>	<b>Cluster</b>		
	<b>1</b>	<b>2</b>	<b>3</b>
Awareness Score	7.00	8.00	7.00
Perception Score	44.00	35.00	32.00
Attitude Score	43.00	22.00	39.00
Impact Score-Purchase Decisions	53.00	31.00	37.00
Impact Score-Access of Services	50.00	44.00	36.00
Satisfaction Score-Purchase decisions	67.00	63.00	43.00
Price Conscious	20.00	19.00	8.00
Product reviews	14.00	13.00	12.00
Product knowledge	13.00	13.00	7.00
Repeat Purchase	10.00	9.00	8.00
Brand Awareness	10.00	10.00	9.00
Hassle free service	15.00	14.00	11.00
Service Knowledge	20.00	16.00	10.00
Easy of access	15.00	11.00	12.00
Repeat Access for service	9.00	6.00	9.00
Quality of service	9.00	7.00	6.00

(Source: Computed)

As the procedure evolved by adding the cases into the nearest cluster, the cluster centers vary for each cluster. Thus the final cluster centers have been arrived when all the cases are grouped into either in one of the cluster which has nearest distance. The table given below gives the details of the final cluster centers.

**Table 6.26**  
**Final Cluster Centers**

Statements	Cluster		
	1	2	3
Awareness Score	8.43	8.46	8.02
Perception Score	37.98	34.91	34.23
Attitude Score	38.16	32.86	33.79
Impact Score-Purchase Decisions	47.11	41.49	40.14
Impact Score-Access of Services	43.14	39.77	37.10
Satisfaction Score-Purchase decisions	59.65	57.27	48.61
Price Conscious	17.44	16.47	13.80
Product reviews	13.00	12.52	10.38
Product knowledge	12.51	11.98	10.09
Repeat Purchase	8.20	7.94	6.56
Brand Awareness	8.81	8.70	7.95
Hassle free service	12.50	12.02	10.51
Service Knowledge	17.01	16.02	14.86
Easy of access	13.04	12.24	11.63
Repeat Access for service	8.40	7.98	7.29
Quality of service	8.57	8.08	7.47

(Source: Computed)

It is observed from the table 6.28 that the first segment has the highest values for all factors included in the analysis. This shows that the respondents have the opinion that they agree to most of the factors at the highest level has been more experienced and more

knowledgeable about internet advertisements and hence, they can be called as ‘**Proficients**’. The second segment (column marked 2) respondents have lesser values compared to segment 1 cluster but higher than cluster 3 and hence they have been grouped under ‘**Moderates**’. The third type of respondents (columns marked 3) who have center value at the lowest and they have been new to internet advertisements and the skeptical about the online purchase and hence, they can be called as “**Novice**”.

In order to analyse the effectiveness of the clustering procedure and how effectively it has grouped the cases, the distances between the cluster centers have been calculated. This will show how different each cluster from the other one and also how close one cluster to the other.

**Table 6.27**

**Distances between Final Cluster Centers**

<b>Cluster</b>	<b>1</b>	<b>2</b>	<b>3</b>
<b>1</b>		9.482	16.807
<b>2</b>	9.482		10.394
<b>3</b>	16.807	10.394	

(Source: Computed)

It is observed from the table 6.27 that, clusters 1 and 3 have the highest difference and the closest has been the clusters 1 and 2.

### **ANOVA - Cluster Groups**

ANOVA has been applied to find whether the cluster groups differ significantly among themselves based on the variables selected. The ANOVA table is shown below.

**Table 6.28****ANOVA**

	<b>Cluster Mean Square</b>	<b>DF</b>	<b>Error Mean Square</b>	<b>DF</b>	<b>F</b>	<b>Sig.</b>
Awareness Score	7.510	2	3.486	397	2.154	Ns
Perception Score	525.205	2	10.377	397	50.614	**
Attitude Score	1105.644	2	11.198	397	98.738	**
Impact Score-Purchase Decisions	1799.456	2	15.451	397	116.465	**
Impact Score-Access of Services	1160.870	2	10.875	397	106.750	**
Satisfaction Score-Purchase decisions	4160.954	2	10.569	397	393.699	**
Price Conscious	437.961	2	2.743	397	159.694	**
Product reviews	240.166	2	1.748	397	137.391	**
Product knowledge	198.790	2	1.852	397	107.355	**
Repeat Purchase	95.968	2	1.172	397	81.880	**
Brand Awareness	27.127	2	.825	397	32.876	**
Hassle free service	133.660	2	2.373	397	56.319	**
Service Knowledge	144.536	2	3.007	397	48.069	**
Easy of access	63.188	2	2.169	397	29.133	**
Repeat Access for service	38.929	2	1.239	397	31.419	**
Quality of service	37.682	2	.875	397	43.045	**

(Source: Computed) (Ns- Not significant) (\*\* - Significant at 1 Per Cent level)

The table 6.30 shows that the cluster procedure has differentiated the groups significantly on all the factors. Finally, the number of respondents who have been grouped into each cluster has given in the following table.

**Table 6.29**

**Distribution of cluster groups**

<b>Cluster Groups</b>	<b>No. of the respondents</b>	<b>Per cent</b>
Proficients	137	34.3
Moderates	147	36.8
Novice	116	29.0
<b>Total</b>	<b>400</b>	<b>100.0</b>

(Source: Computed)

It is observed from the table 6.29 that 36.8 per cent of the women consumers belong to Moderates cluster group, 34.3 per cent of the women consumers belong to Proficients cluster group and 29 per cent of the women consumers belong to Novice cluster group.

In this chapter, impact and satisfaction of the internet advertisements on purchase decisions and access of services and challenges faced by the women consumers while accessing and watching the internet advertisements have been analyzed using descriptive statistics, ANOVA, factor analysis and Cluster analysis. The result has indicated that the internet advertisements create knowledge about newly product launched has a higher level of impact towards internet advertisements on purchase decisions.

The earning members in the family have a significant difference with the impact of internet advertisements on purchase decisions. The internet usage, such as, frequency of internet access and number of times of internet access per day have a significant difference with the impact of internet advertisements on purchase decisions.

The internet advertisements create awareness about various services has a higher level of impact towards internet advertisements on access of service. The demographic factors, such as, age and occupation has a significant difference with the impact of internet advertisements on access of services. The internet usage, such as, numbers of

times of internet access per day has a significant difference with the impact of internet advertisements on access of services.

The internet advertisements create brand awareness through advertisement has a higher level of satisfaction towards internet advertisements on purchase decisions. The demographic factors, such as, age and educational qualifications have a significant difference with the level of satisfaction towards internet advertisements on purchase decisions. The internet usage, such as, frequency of internet access, numbers of times of internet access per day and frequently used browsers have a significant difference with the level of satisfaction towards internet advertisements on purchase decisions.

The internet advertisements help the women consumers to immediate use of offers which helps to access service easily has a higher level of satisfaction towards internet advertisements on access of services. Age has a significant difference with the level of satisfaction towards the internet advertisements on access of services. The internet usage, such as, number of times of internet access per day and network access in Phone/I pad/Tablet have a significant difference with the level of satisfaction towards the internet advertisements on access of services.

The women consumers are satisfied with the social media advertisement. Most of the women consumers have faced difficulty while accessing the internet advertisements due to network variation. Kendall's coefficient of concordance reveals that there exists less similarity in assigning ranks regarding difficulty faced by the women consumers while accessing and watching the internet advertisements.

The consumer satisfaction towards internet advertisements on purchase decisions have been categorized using factor analysis. The five factors have been found and classified as Price Consciousness, Product Reviews, Product Knowledge, Repeat Purchase and Brand Awareness. The five factors have been identified for consumer satisfaction towards internet advertisements on access of services are Hassle Free Service, Service Knowledge, Easy Access, Repeat Access for Service and Quality of Service. Cluster analysis technique has been applied to segment the women respondents who have accessed the internet into two or more similar groups.

The three cluster groups have been formed and classified as Proficients, Moderates and Novice. Most of the women consumers are belong to Moderate groups. The ANOVA result has indicated that there exist a significant difference among the cluster groups and the total number of the women consumers are grouped under three cluster groups. The Moderates groups of the women consumers have knowledge and experience in watching the internet advertisements.