CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

Introduction

This chapter discusses the data analysis and its relevant interpretation. Appropriate statistical tests have been applied by the researcher to accomplish the research study's objectives and test the specified hypotheses. Descriptive Statistics, Frequency counts, factor analysis, correlation, regression, and Analysis of Variance (ANOVA) have been used. This chapter also details upon the statistical interpretation of the various statistical techniques applied. The data analysis is presented in a very simple and lucid manner with the aid of relevant tables, figures and graphs. The primary data of this research study was analysed using IBM SPSS Statistics 21.

4.1 Demographic profile of respondents

Table 4.1 (a): Demographic Profile of Respondents

Respondent's Profile	Particulars	Respondents	Percentage
Gender	Male	369	35.1
	Female	681	64.9
Marital Status	Married	610	58.1
	Unmarried	403	38.4
	Divorced	37	3.5
Age Group	20-30 years	452	43
	30-40 years	388	37
	40-50 years	134	12.8
	50 or more years	76	7.2
Respondent Status	Student	163	15.5
	Employed	394	37.5
	Self-Employed	211	20.1
	Home-maker	244	23.2
	Unemployed	7	0.7
Education	Below High School	98	9.3
	Graduate	533	50.8
	Post Graduate	367	35
	Doctorate	52	5

From among the total number of respondents, 369 (35.1%) were male and 681 (64.9%) were females. Most of the respondents of the study are married 610 (58.1%) and rest are unmarried/divorced. Regarding age, maximum respondents 452 (43%) belong to the age group of 20 to 30 years followed by the age group of 30 to 40 years 388 (37%) and the rest of the respondents belong to the age group of 40 to 50 years 134 (12.8%) where else only 76 (7.2%) of respondents are of 50 years or more. As far as educational qualification of respondents is considered, 533 (50.8%) are graduates and 367 (35%) respondents are post graduate. It is also observed that there are a few 98 (9.3%) who are educated until high school and remaining 52 (5%) of respondents have a doctorate degree. The occupational status of respondents, most of them 394 (37.5%) employed and 211 (20.1%) are self-employed.

Table 4.1 (b): Demographic Profile of Respondents (Cont.)

Respondent's Profile	Particulars	Respondents	Percentage
Household Size	Less than 3 members	380	36.2
	3 to 5 members	464	44.2
	More than 5 members	206	19.6
Family Type	Joint	550	52.4
	Nuclear	500	47.6
Monthly income if self employed	Less than Rs. 50,000/-	101	9.6
	Rs. 50,000/- to Rs. 1,00,000/-	373	35.5
	Rs. 1,00,000 to Rs.1,50,000	99	9.4
	More than Rs. 1,50,000	203	19.3
Monthly income if not self employed	Less than Rs. 50,000/-	50	4.8
	Rs. 50,000/- to Rs. 1,00,000/-	279	26.6
	Rs. 1,00,000 to Rs.1,50,000	123	11.7
	More than Rs. 1,50,000	202	19.2
Residential location	Urban	786	74.9
	Rural	246	25.1
Respondent City/Town	Gandhinagar	132	12.57
	Ahmedabad	525	50
	Vadodara	393	37.42

Further, number of members in the family is asked because it is the deciding factor in the purchase of household appliances. Out of 1,050 respondents in the study, 380 (36.2%) of respondents have less than 3 members in family whereas, 464 (44.2%) of respondents have

a family size of 3 to 5 members and 206 (19.6%) of respondents have more than 5 members in their family. Monthly income becomes an important determinant for purchase of Green Household Appliances, it was divided in two segments – self-employed and service/job. It was observed that 373 (35.5 %) of respondents were self-employed having an income range of 50,000/- to 1,00,000. Only 101 (9.6%) of the population had an income less than 50,000. 203 (19.3%) respondents have income more than 1,50,000/- for their monthly income, but not self-employed.

The type of family can also affect the purchase tendency. 550 (52.4%) respondents belong to joint family and the rest, 500 (47.6%) are from nuclear family. Locality of the respondents have been asked because it is an important factor that affects the purchase of GHA. It can be observed from the table that, maximum respondents 786 (74.9%) belong to Urban area and only 246 (25.1%) belong to Rural regions. Finally, as the study targets cities of Gujarat, based on their population, selected sample respondents from Ahmedabad 525 (50%), followed by Vadodara city 393 (37.4) and lastly, Gandhinagar 132 (12.6%).

4.2 Household Appliance Ownership and Usage:

To study and understand the behaviour pattern (i.e.) ownership and usage of Green Household Appliances, the researcher has segmented Green Household Appliances in three types - Entertainment appliances, Utility appliances and Kitchen appliances. From among these three segments, the current study focuses on the ownership and usage of only four household appliances – Television, Washing Machine, Refrigerator and Air Conditioner. The following table shows the appliance ownership and usage of respondents.

Table 4.2.1: Household Appliances Ownership

Sr. no.	Product	Frequency	Percentage
1.	**Entertainment Appliances**		
	LCD/ Plasma TV	1034	98.5
	Computer (Desktop/ Laptop)	863	82.2
	Home Theatre	158	15
	Over Head Projector	96	9.1
2.	**Utility Appliances**		
	Dishwasher	179	17
	Air Conditioner	959	91.3
	Washing Machine	954	90.9

	Tumbler Dryer	211	20.1
	Steam Iron	826	78.7
	Electric Shower	341	32.5
	Electric Hot Water System	277	26.4
3	**Kitchen Appliances**		
	Microwave	649	61.8
	Electric Oven	303	28.9
	Mixer/Grinder	873	83.1
	Juicer	270	25.7
	Kettle	210	20
	Refrigerator	1038	98.8
	Deep Freezer	926	88.2

From the total number of respondents 1050, maximum 1038 (98.8%) respondents own refrigerator, LCD/Plasma TV 1034 (98.5%) followed by Air Conditioner 959 (91.3%) and Washing Machine 954 (90.9%). It is also observed that, very few respondents owned home theatre 158 (15%), Dish washer 179 (17%) kettle 210 (20%) and Tumbler Dryer 211 (20.1%) and so on.

Table 4.2.2: Usage of Entertainment Appliance

Sr. no.	Entertainment Appliance	Ownership	Less than 2 hours	2 to 4 hours	More than 4 hours
1	LCD/ Plasma TV	1034	241	252	541
2	Computer (Desktop/ Laptop)	863	142	217	504
3	Home Theatre	158	30	100	28
4	Over Head Projector	96	19	61	16

As observed in Table 4.2.1, Appliance Ownership, that, LCD/Plasma is the second highest owned appliances and hence its usage is also noted to be maximum Majority of the respondents (541) use LCD for more than 4 hours per day. Computer (Desktop/ Laptop) is also noted to be used for more than 4 hours by 503 respondents. Only a few own Home Theatre (158) and Over Head Projector (96) as entertainment appliance and henceforth, its usage is also found to be limited.

Table 4.2.3: Usage of Utility Appliances

Sr. no.	Utility Appliance	Ownership	Less than 2 hours	2 to 4 hours	More than 4 hours
1	Dishwasher	179	61	99	19
2	Air Conditioner	959	284	282	393
3	Washing Machine	954	112	786	56
4	Tumbler Dryer	211	29	169	13
5	Steam Iron	826	68	740	18
6	Electric Shower	341	35	290	16
7	Electric Hot Water System	277	33	221	23

It is observed from the above table that approximately all respondents use Air Conditioner (959) and Washing Machine (954) as Utility appliance. For Air conditioner, the maximum respondents (393) are using it for more than 4 hours. On the other hand, washing machine is used for 2 to 4 hours per days (786). Stream Iron is the third highest (826) used appliances. Appliances like dishwasher (179), tumbler dryer (211) and Electric Hot water system (277) are the least owned.

Table 4.2.4: Usage of Kitchen Appliances

Sr. no.	Kitchen Appliance	Ownership	Less than 2 hours	2 to 4 hours	More than 4 hours
1	Microwave	649	27	600	22
2	Electric Oven	303	18	264	21
3	Mixer/Grinder	873	32	827	14
4	Juicer	270	19	230	21
5	Kettle	210	19	147	44
6	Refrigerator	1038	00	00	1038
7	Deep Freezer	926	1	17	908

For the kitchen appliances, Refrigerator (1038) and deep freezer (908) are found to be used for more than 4 hours. Refrigerator and deep freezer are commodities which can be used 24*7 and hence, responses for its usage are found to be more than 4 hours. Microwave as a kitchen appliances used by majority of respondents (600) from 2 to 4 hours followed by Electric Oven (296). The least owned and used appliance is Juicer (270) and Kettle (210).

Table 4.3: Descriptive Statistics of Constructs

Table 4.3.1 - Perception Towards Eco-Friendly Products									
Product Code	**Eco friendly Products**	Level of Agreement(1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					**Mean Score**	**S.D.**	
		Frequency Count							
		1	2	3	4	5			
PE1	Are beneficial for the environment	11	17	32	444	546	4.426	.7272	
PE2	Are healthy	5	19	39	372	615	4.498	.7003	
PE3	Are dependable and trustworthy	4	30	67	429	520	4.363	.7593	
PE4	Have a decent quality/performance	5	27	67	451	500	4.347	.7524	
PE5	Have a better quality/performance when compared to traditional products	11	37	118	316	568	4.327	.8847	
PE6	Have a decent taste and/or good fragrance	12	72	226	380	360	3.956	.9665	
PE7	Have rationally price	203	351	150	207	139	2.741	1.330	
PE8	Are well advertised	289	489	98	86	88	2.233	1.182	
PE9	Are available nearby my community / supermarket	295	439	77	96	143	2.384	1.341	

Table 4.3.2 - Reasons for Purchasing Eco-Friendly Products								
Product Code	**Reasons for purchasing Eco-Friendly Products**	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
RP1	They present a positive image of myself.	7	24	44	630	345	4.221	.6881
RP2	I wish to preserve the world	5	18	24	616	387	4.297	.6442
RP3	I choose eco-friendly products.	8	31	52	589	370	4.221	.7350
RP4	I feel trendy/fashionable when I buy eco-friendly things.	57	94	81	444	374	3.937	1.130
RP5	If I do not purchase, others may judge me.	329	202	94	235	190	2.767	1.530
RP6	I make an spontaneous purchase of eco-friendly products in a supermarket.	85	157	77	426	305	3.675	1.259
RP7	I was delighted with the majority of the eco-friendly things I purchased.	32	41	71	358	548	4.285	.9694

	Table 4.3.3 - Perceived Knowledge/ Awareness about Environment							
Product Code	**Awareness about Environment**	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
PK1	I am aware about Carbon Dioxide (CO2) emissions from household energy consumption	298	318	43	291	100	2.597	1.391
PK2	I know about Zero Carbon Homes	383	326	50	209	82	2.315	1.346
PK3	I know about the Government's initiatives to reduce CO2 Emissions	299	376	56	237	82	2.454	1.318
PK4	I am aware about the ill-effects of Climate Change	167	165	46	547	125	3.284	1.308
PK5	I am aware about the ill effects of Global Warming	59	72	63	632	224	3.848	1.015
PK6	I am aware about the ill effects of Ozone Depletion	99	128	60	546	217	3.623	1.208
PK7	I am aware about Ocean Acidification	252	291	77	280	150	2.795	1.426
PK8	I am aware about the Loss of Biodiversity	38	48	66	679	219	3.946	.8819
PK9	I am aware about the ill effects of all kinds of Pollution	22	26	56	513	433	4.247	.8326
PK10	I am aware about electricity saving in the home	4	8	45	298	695	4.592	.6473

	Table 4.3.4 - Attitude Towards Environmental Protection							
Product Code	**Attitude towards Environmental Protection**	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
AE1	Environmental protection is crucial to me while making purchases of appliances.	5	17	54	632	342	4.228	.6583
AE2	Energy-efficient appliances are vital for reducing air pollution.	4	17	53	609	367	4.255	.6590
AE3	Energy efficient Appliances are essential in saving natural resources that would be utilised to produce energy, such as coal and water.	00	20	56	526	448	4.335	.6665
AE4	If I may pick between energy-efficient and traditional appliances, I favour energy-efficient.	1	15	43	463	555	4.456	.6539

		1	2	3	4	5	Mean	S.D.
AE5	Reducing my household's energy consumption would help protect the environment	4	14	42	509	481	4.380	.6646
AE6	It would save me money to reduce my household's energy consumption	21	19	32	517	461	4.312	.7905
AE7	Reducing my household's energy consumption would be inconvenient	321	123	35	222	340	3.122	1.686
AE8	During the recent past, I have taken steps to reduce my household's energy use	10	19	48	323	650	4.509	.7515

Table 4.3.5 - Consumer's Energy-Saving Behaviour								
Product Code	Consumer's Energy-Saving Behaviour	Frequency (1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, and 5 = Always)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
CE1	I switch off lights and appliances when they're not in use.	9	15	134	445	447	4.244	.7930
CE2	I use energy-efficient light bulbs around the house.	3	36	96	616	299	4.116	.7253
CE3	I consciously try to change my daily habits for energy savings	00	28	87	485	450	4.292	.7301
CE4	I use energy saving household appliances	00	30	108	484	428	4.248	.7510
CE5	I consciously put an effort to reduce the amount of usage of household appliances. (Cooking, heating and cooling etc.)	00	26	108	504	412	4.240	.7329
CE6	I believe in replacing older appliances which might be less energy efficient.	15	41	86	408	500	4.273	.8769
CE7	I use smart power strip devices to manage the usage of my household appliances in a smart way	173	88	139	329	321	3.511	1.421
CE8	I made an attempt to reduce the frequency of use of household equipment in order to reduce energy consumption.	29	55	68	447	451	4.177	.9601
CE9	I look for cutting out air leaks to reduce draughts	17	19	82	421	511	4.324	.8238

		FACTORS DETERMINING GREEN PURCHASE BEHAVIOUR						
		Table 4.3.6 - Knowledge/ Awareness About 'Energy Efficient / Green Household Appliances'						
Product Code	Knowledge/ Awareness about 'Energy Efficient / Green Household Appliances'	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					Mean	S.D.
		Frequency Count						
		1	2	3	4	5		
KA1	I am aware with Energy Efficient / Green Household Appliances.	4	12	79	764	191	4.072	.5764
KA2	I understand the environmental implications of Energy Efficient / Green Household Appliances.	4	10	48	689	299	4.209	.5597
KA3	I am educated about energy rating labels.	7	14	40	555	434	4.329	.6762
KA4	I am knowledgeable with energy-efficient and green household appliances.	3	15	19	605	408	4.333	.6154
KA5	I am educated about the advantages of utilising energy-efficient / green household appliances.	2	15	27	534	472	4.390	.6310

	Table 4.3.7 - Attitude Towards 'Energy Efficient / Green Household Appliances'							
Product Code	Attitude towards 'Energy Efficient / Green Household Appliances'	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					Mean	S.D.
		Frequency Count						
		1	2	3	4	5		
AE1	Energy Efficient / Green Household Appliances play an essential role in reduce air pollution	2	13	83	622	330	4.205	.6469
AE2	Energy Efficient/Green Household Appliances are essential in saving natural resources that would be utilised to produce energy, such as coal and water.	2	19	46	646	337	4.235	.6319
AE3	I am assured that Energy Efficient / Green Household Appliances are always premium in price	32	72	90	402	454	4.118	1.026
AE4	I am assured that Energy Efficient / Green Household Appliances could be a useful in long-run	00	15	25	496	514	4.437	.6162
AE5	I feel that Energy Efficient / Green Household Appliances are a major ecological need, not merely a marketing tool.	3	15	58	482	492	4.376	.6823

		1	2	3	4	5	Mean	S.D.
AE6	If I were to choose between energy efficient and traditional appliances, I'd prefer energy efficient.	00	12	31	443	564	4.485	.6164
AE7	I believe that attractive government promotions on green items would help promote them.	2	18	40	443	547	4.443	.6701
AE8	I would recommend that others buy and use energy-efficient / green household appliances.	00	14	29	347	660	4.574	.6165

Table 4.3.8 - Consumer Readiness for 'Energy Efficient / Green Household Appliances'								
Product Code	Consumer Readiness for 'Energy Efficient / Green Household Appliances'	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					Mean	S.D.
		Frequency Count						
		1	2	3	4	5		
CR1	I am a strongly believe and advocate of Energy Efficient / Green Household Appliances.	51	97	257	531	114	3.533	.9711
CR2	I do believe in using Green Products but am not a strong promoter of Energy Efficient Appliances.	46	86	96	554	286	3.869	1.025
CR3	I am a modest believer of Green Products but not thought much on the issue.	158	149	128	400	215	3.348	1.350
CR4	I have not much to do with green initiatives. Government should take measures.	354	184	95	245	172	2.711	1.526
CR5	I am the least concerned about environmentalism. The government and industry should promote and address these challenges.	370	174	100	217	189	2.696	1.553
CR6	If my disposable income grew, I would definitely go with Energy Efficient / Green Household Appliances.	11	33	73	393	540	4.350	.8256
CR7	According to me, the most significant barrier to purchasing Energy Efficient / Green Household Appliances is the price.	5	30	57	334	624	4.469	.7660

Table 4.3.9 - Subjective Social Norms								
Product Code	**Subjective Social Norms**	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
SS1	The majority of the individuals that are significant to me believe that I should get Energy Efficient / Green household appliances.	167	305	116	316	146	2.970	1.335
SS2	The majority of those who are significant to me, expect me to purchase energy-efficient / green household appliances.	171	325	89	302	163	2.963	1.367
SS3	Most of the people who are important to me would support my purchase of Energy Efficient / Green Household Appliances next time.	61	72	115	509	293	3.858	1.081
SS4	People whose opinions I value would choose energy-efficient or green household appliances instead of conventional ones.	51	74	68	451	406	4.035	1.081

Table 4.3.10 - Moral Norms								
Product Code	**Moral Norms**	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
MN1	I personally feel obligated to buy energy-efficient / green household appliances for the sake of the environment.	175	89	128	453	205	3.404	1.342
MN2	I feel bad when I purchase electrical items that harm the environment.	286	144	82	346	192	3.013	1.513
MN3	Purchasing electrical appliances that harm the environment is morally unacceptable for me.	273	136	76	311	254	3.130	1.555
MN4	Purchasing electrical appliances that harm the environment would violate my ethics.	296	173	105	267	209	2.924	1.529
MN5	People like me have a duty to help to environmental conservation by avoiding electrical devices that harm the environment.	74	69	72	405	430	3.998	1.173

MN6	Everyone should help promote green electrical appliance production by purchasing only energy-efficient / green household appliances.	26	35	75	392	522	4.285	.9190

Table 4.3.11 - Environmental Self-Identity								
Product Code	**Environmental Self-Identity**	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
ES1	I think of myself as someone who cares about the environment.	3	25	73	701	248	4.110	.6441
ES2	I consider myself to be a customer that cares about the environment.	5	16	43	752	234	4.137	.590
ES3	I want my loved ones to think of me as an environmentally conscious person.	23	48	68	473	438	4.195	.9081
ES4	If I weren't thought of as leading an environmentally conscious lifestyle, I would be ashamed.	164	117	49	407	313	3.560	1.145
ES5	Investing in green or energy-efficient household appliances gives me the impression that I am a consumer who cares about the environment.	00	11	37	529	473	4.394	.6103

Table 4.3.12 - Warm Glow								
Product Code	**Warm Glow**	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
WG1	I like to help safeguard the environment by acquiring energy-efficient / green household appliances.	4	20	82	686	258	4.118	.6486
WG2	I admire people who voluntarily buy energy-efficient or green household appliances.	2	19	51	660	318	4.212	.6295
WG3	While buying energy-efficient or environmentally friendly household appliances, I feel a	00	13	94	479	464	4.328	.6885

		1	2	3	4	5	Mean	S.D.
	feeling of devotion to the well-being of humanity.							
WG4	Purchasing energy-efficient / green household appliances makes me happy since they assist to safeguard the environment.	4	13	76	430	527	4.393	.7098
WG5	Purchasing Energy Efficient / Green Household Appliances makes me feel good because it allows me to reduce my household energy consumption.	1	7	39	493	510	4.432	.6095
WG6	Buying Energy Efficient / Green Household Appliances helps me feel good since they help me minimise my electricity cost.	00	8	34	433	575	4.500	.6007
WG7	When I buy green things, such as energy-efficient appliances, I feel good about myself.	2	2	35	312	699	4.623	.5798

Table 4.3.13 - Perceived Barriers								
Product Code	**Perceived Barriers**	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
PB1	I cannot pay premium price to purchase Energy Efficient / Green Household Appliances.	216	360	86	291	97	2.708	1.314
PB2	While shopping, I can't easily differentiate between energy efficient and traditional electrical appliances	294	354	74	266	62	2.474	1.293
PB3	I require a lot of extra time to buy Energy Efficient Appliances	222	392	69	224	143	2.690	1.372
PB4	I am not assertive about the trustworthiness of energy rating labels	214	364	66	205	201	2.824	1.447
PB5	Lack of Information/Awareness about green products is responsible for its low demand.	32	78	72	255	613	4.275	1.072
PB6	Lack of Availability / Unease of Access of green products is responsible for its low demand.	36	62	77	253	622	4.298	1.059
PB7	Cost savings from green products are lower than anticipated.	169	209	167	241	264	3.211	1.426
PB8	I fear of being cheated in the term of green products.	182	206	98	302	262	3.244	1.455

Product Code		10	45	62	274	659	4.454	.8591
PB9	Reluctance to change is responsible for the little demand of green products.	10	45	62	274	659	4.454	.8591
PB10	Lack of proper advertising of green products is accountable for its low demand.	5	33	48	222	742	4.584	.7620

Table 4.3.14 - Green Purchase Behaviour								
Product Code	**Green Purchase Behaviour**	Frequency (1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, and 5 = Always)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
GP1	I buy Energy Efficient Appliances	7	52	315	495	181	3.753	.8187
GP2	I am ready to shift from conventional appliances to Energy Efficient Appliances	7	50	343	454	196	3.754	.8363
GP3	I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances	6	51	261	520	212	3.839	.8191

Table 4.3.15 - Dimensions Determining To 'Sustainable Development Practices/Consumption Behaviour'								
Product Code	**Sustainable Development Practices/Consumption Behaviour**	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
SD1	Encouraging green design-based construction and refurbishment	18	15	36	572	409	4.275	.7483
SD2	Encouraging Energy conservation methods in household and business purposes as well.	6	22	55	544	423	4.291	.7114
SD3	Discouragement of waste production methods	4	29	31	521	465	4.347	.7053
SD4	Promoting the recycling of solid waste, such as e-waste, paper, plastic, and metal.	2	29	53	476	494	4.367	.7067
SD5	Supporting the programme for sustainable food	00	25	49	521	455	4.339	.6788
SD6	Promoting water-saving measures in residential and business settings	00	15	53	540	442	4.342	.6419

							Mean	S.D.
SD7	Encouraging methods of sustainable land management.	2	16	40	502	490	4.392	.6552
SD8	Promoting sustainable mobility initiatives such as bus pass programmes, carpooling for non-motorized vehicles, etc.	1	12	68	429	540	4.424	.6739
SD9	Promote the purchase of eco-friendly products from reputable vendors.	1	12	55	424	558	4.453	.6580
SD10	Cut down on radioactive and hazardous waste	1	13	31	423	582	4.497	.6286
SD11	Promote environmental auditing in order to promote sustainable development.	00	28	37	361	624	4.506	.6935

Table 4.3.16 - Awareness Level of Green Eco-Label Systems								
Product Code	**Product Categories**	Level of Awareness (1 = Not at all Aware, 2 = Slightly Aware, 3 = Somewhat Aware, 4 = Moderately Aware, and 5 = Extremely Aware)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
AL1	Aerosol Propellants	885	84	51	19	11	1.273	.7284
AL2	Architectural Paints and Powder Coatings	526	418	71	18	17	1.650	.8128
AL3	Batteries	250	566	181	31	22	2.056	.8454
AL4	Cosmetics	199	419	334	75	23	2.337	.9368
AL5	Electronic / White Goods	247	276	411	90	26	2.402	1.015
AL6	Fire Extinguisher	442	361	141	65	41	1.954	1.073
AL7	Food additives and preservatives	480	364	127	50	29	1.842	.9965
AL8	Food items	371	476	107	48	48	1.977	1.024
AL9	Leather Products	430	387	159	36	38	1.919	1.009
AL10	Lubricating oil	436	398	144	45	27	1.885	.9710
AL11	Packaging Materials	333	404	193	84	36	2.130	1.055
AL12	Paper	263	498	191	65	33	2.150	.9730
AL13	Pesticides and Drugs	410	381	176	60	23	1.957	.9914
AL14	Plastic Products	311	377	294	47	21	2.133	.9583
AL15	Soaps and detergents	174	374	389	93	20	2.439	.9327
AL16	Textiles	485	302	190	47	26	1.883	1.015
AL17	Vegetable Oils	569	283	131	37	30	1.739	.9988
AL18	Wood Substances / Substitutes	587	301	87	49	26	1.691	.9783

Table 4.3.17 - Significant Parameters while selecting Star Rated Television

Product Code	Parameters	Level of Significance (1 = Not at all Significant, 2 = Slightly Significant, 3 = Moderately significant, 4 = Very Significant, and 5 = Extremely Significant)					Mean	S.D.
		Frequency Count						
		1	2	3	4	5		
P1	Label and brand name	26	32	190	158	643	4.293	1.030
P2	Look and feel	22	133	329	265	301	3.657	1.085
P3	Recommendation from relatives and friends	9	64	268	210	499	4.072	1.023
P4	Persuasion from salesman	35	162	310	275	268	3.551	1.125
P5	Personal research from website and newspaper before purchase	9	53	162	311	515	4.210	.9385
P6	Cost incentive attached like easy EMI, festival offer, free gifts	13	23	161	300	553	4.292	.8912
P7	Energy saving	2	32	136	466	414	4.198	.7901
P8	Star Rating	10	29	138	398	475	4.237	.8511
P9	Convenient to use	6	28	126	582	308	4.103	.7493
P10	Health reasons	4	39	100	413	494	4.290	.8157
P11	Latest and smart technology	4	22	75	318	631	4.476	.7512
P12	Price	7	19	49	249	726	4.589	.7243
P13	Space	7	17	125	457	444	4.251	.7772

Table 4.3.18 - Significant Parameters while selecting Star Rated Refrigerator

Product Code	Parameters	Level of Significance (1 = Not at all Significant, 2 = Slightly Significant, 3 = Moderately significant, 4 = Very Significant, and 5 = Extremely Significant)					Mean	S.D.
		Frequency Count						
		1	2	3	4	5		
P1	Label and brand name	16	40	147	226	621	4.330	.9556
P2	Look and feel	14	92	330	306	308	3.764	1.011
P3	Recommendation from relatives and friends	23	94	205	228	500	4.036	1.107
P4	Persuasion from salesman	42	121	284	313	290	3.655	1.118
P5	Personal research from website and newspaper before purchase	15	76	107	302	550	4.234	.9949
P6	Cost incentive attached like easy EMI, festival offer, free gifts	7	27	130	322	564	4.342	.8412

P7	Energy saving	2	15	119	439	475	4.305	.7400
P8	Star Rating	4	18	119	443	466	4.285	.7612
P9	Convenient to use	12	17	144	543	334	4.114	.7813
P10	More Capacity	8	17	98	533	394	4.227	.7423
P11	Health reasons	5	13	74	374	586	4.450	.7188
P12	Latest and smart technology	3	10	81	222	734	4.594	.6981
P13	Price	4	14	20	193	819	4.723	.6023
P14	Space	9	17	70	424	530	4.380	.7546

Table 4.3.19 - Significant Parameters while selecting Star Rated Air Conditioner								
Product Code	**Parameters**	Level of Significance (1 = Not at all Significant, 2 = Slightly Significant, 3 = Moderately significant, 4 = Very Significant, and 5 = Extremely Significant)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
P1	Label and brand name	12	45	137	168	688	4.405	.9471
P2	Look and feel	18	83	322	318	309	3.778	1.011
P3	Recommendation from relatives and friends	10	67	193	275	505	4.141	.9934
P4	Persuasion from salesman	17	81	280	322	350	3.864	1.018
P5	Personal research from website and newspaper before purchase	10	53	127	314	546	4.270	.9256
P6	Cost incentive attached like easy EMI, festival offer, free gifts	7	17	85	287	654	4.490	.7678
P7	Energy saving	7	17	101	468	457	4.287	.7580
P8	Star Rating	6	30	64	453	497	4.338	.7657
P9	Convenient to use	6	39	95	553	357	4.158	.7785
P10	Health reasons	6	23	89	389	543	4.371	.7769
P11	Latest and smart technology	8	24	82	262	674	4.495	.7971
P12	Price	3	24	41	183	799	4.668	.6869
P13	Space	11	21	80	393	545	4.371	.7951

Table 4.3.20 - Significant Parameters while selecting Star Rated Washing Machine									
Product Code	**Parameters**	Level of Significance (1 = Not at all Significant, 2 = Slightly Significant, 3 = Moderately significant, 4 = Very Significant, and 5 = Extremely Significant)					**Mean**	**S.D.**	
		Frequency Count							
		1	2	3	4	5			
P1	Label and brand name	15	29	157	214	635	4.357	.9309	
P2	Look and feel	15	66	311	351	307	3.828	.9694	
P3	Recommendation from relatives and friends	8	60	245	259	478	4.085	.9897	
P4	Persuasion from salesman	42	54	257	365	332	3.849	1.051	
P5	Personal research from website and newspaper before purchase	15	50	138	324	523	4.229	.9472	
P6	Cost incentive attached like easy EMI, festival offer, free gifts	6	35	63	313	633	4.459	.7984	
P7	Energy saving	4	19	95	432	500	4.338	.7480	
P8	Star Rating	8	25	100	466	451	4.264	.7871	
P9	Convenient to use	7	33	121	490	399	4.182	.8053	
P10	Health reasons	12	37	62	370	569	4.378	.8381	
P11	Latest and smart technology	15	31	54	290	660	4.475	8.375	
P12	Price	3	25	35	166	821	4.692	.6762	
P13	Space	5	42	76	368	599	4.366	.8213	

Table 4.3.21 - Level of Happiness with the Purchase of Star Rated Appliances								
Product Code	**Star Rated Appliances**	Level of Happiness (1 = Not at all Happy, 2 = Slightly Happy, 3 = Moderately Happy, 4 = Very Happy, and 5 = Extremely Happy)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
SR1	Television	1	45	286	470	248	3.875	.8208
SR2	Refrigerator	2	34	264	509	241	3.908	.7872
SR3	Air conditioner	2	39	260	489	260	3.920	.8094
SR4	Washing machine	3	45	245	454	303	3.961	.8475

Table 4.3.22 - Green Brand Awareness								
Product Code	**Green Brand Awareness**	Level of Awareness (1 = Not at all Aware, 2 = Slightly Aware, 3 = Somewhat Aware, 4 = Moderately Aware, and 5 = Extremely Aware)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
GB1	I am aware of the work green brands do to protect the environment.	28	19	138	616	249	3.990	.8255
GB2	I've noticed a few environmental tags for the many eco-friendly companies.	8	27	78	624	313	4.150	.7225
GB3	I understand the significance of the environmental phrases and icons that readily available green brands employ in their advertising campaigns.	9	16	110	554	361	4.183	.7441
GB4	Some of the environmental emblems used by the many green firms in their marketing campaigns are ones that I can still recall.	7	19	109	498	417	4.237	.7600
GB5	I will choose to choose a green brand if I see an environmental label on it.	4	22	78	475	471	4.321	.7338

Table 4.3.23 - Perceived Green Brand Image								
Product Code	**Green Brand Image**	(1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
PG1	The greatest standard for environmental promises, in my opinion, is the brands of green items.	5	18	134	527	366	4.172	.7473
PG2	The environmental reputation of the green brands is managed expertly.	4	39	260	593	154	3.813	.7368
PG3	The green brands that are readily available function well in terms of the environment.	00	56	130	607	257	4.014	.7631
PG4	A green product's brand genuinely focuses on environmental commitments.	2	59	82	553	354	4.141	.7987
PG5	Green goods brands have a strong reputation for caring about the environment.	1	18	113	498	420	4.255	.7212

Table 4.3.24 - Perceived Quality								
Product Code	**Perceived Quality**	(1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
PQ1	The quality of green brands is higher than that of traditional ones.	4	42	72	601	331	4.155	.7447
PQ2	The quality of green brands is consistent when compared to conventional ones.	4	28	104	662	252	4.076	.6889
PQ3	When compared to traditional brands, the quality of green brands is consistent and efficient.	00	26	90	533	401	4.274	.7116
PQ4	The quality of green brands is significantly higher than that of conventional ones.	2	24	64	589	371	4.241	.6821
PQ5	The quality of green brands is significantly superior than that of conventional ones.	3	20	59	469	499	4.372	.7037

Table 4.3.25 - Purchase Intention								
Product Code	**Perceived Intention**	(1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
PI1	Because of its commitment to the environment, using green items makes sense instead of other products.	4	16	57	714	259	4.150	.6115
PI2	I would rather use products that have environmental obligations, even if they have the same features as another product.	3	33	68	667	279	4.130	.6823
PI3	Even if there is a better product than green items, I would rather use the greed one.	3	15	126	467	439	4.261	.7439
PI4	Using green items makes sense if other products do not pose a threat to the environment.	2	44	61	491	452	4.283	.7706

GREEN MARKETING TOOLS								
Table 4.3.26 - Green Perceived Product								
Product Code	Green Perceived Product	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					Mean	S.D.
		Frequency Count						
		1	2	3	4	5		
GP1	I find green-branded goods to be trustworthy.	18	9	62	724	237	4.098	.6813
GP2	Greener products are superior to non-green ones.	11	26	101	650	262	4.072	.7310
GP3	Green brands, in my opinion, don't fully fulfil the greening process.	29	116	111	473	321	3.896	1.045
GP4	Green labels are simple to identify	26	46	45	667	266	4.049	.8322
GP5	I think Green Labels are a great resource when selecting a product.	00	22	61	619	348	4.231	.6482
GP6	Green labels persuade me to buy the goods.	00	12	55	601	382	4.289	.6156
GP7	The packaging makes a green product easier to identify.	1	15	55	599	380	4.278	.6349
GP8	Environmentally friendly packaging appeals to me more than non-eco-friendly packaging.	2	13	60	547	428	4.320	.6553
GP9	I like to purchase goods packaged in an environmentally responsible manner.	3	21	44	404	578	4.460	.6978

Table 4.3.27 - Green Perceived Price								
Product Code	Green Perceived Price	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					Mean	S.D.
		Frequency Count						
		1	2	3	4	5		
GP1	I'm willing to spend more money on eco-friendly things.	142	220	162	332	194	3.206	1.328
GP2	Green items are nice, but they cost a lot of money.	57	103	74	500	316	3.871	1.112
GP3	My main consideration when choosing green items is price.	38	87	84	473	368	3.996	1.043
GP4	Even though I would prefer to purchase eco-friendly goods, I am unable to do so.	111	187	69	398	285	3.532	1.335

GP5	If green products are just as expensive as my preferred brands, I'll switch to them.	5	21	32	348	644	4.529	.6984

Table 4.3.28 - Green Perceived Place								
Product Code	**Green Perceived Place**	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
GP1	I see green products all the time in my area.	385	371	93	144	57	2.159	1.211
GP2	Green products are readily available in my area.	364	421	78	130	57	2.138	1.177
GP3	In my community, I have no trouble locating environmentally friendly products.	343	336	111	174	86	2.356	1.306
GP4	There are no green products at the stores where I shop.	99	110	79	435	327	3.744	1.261
GP5	If green items are readily available, I might buy them.	28	55	42	286	639	4.384	.9755

Table 4.3.29 - Green Perceived Promotion								
Product Code	**Green Perceived Promotion**	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
GP1	I like to see advertisements that highlight the environmental benefits of products.	9	38	62	509	432	4.254	.7927
GP2	I'm interested in green advertising.	10	25	56	545	414	4.265	.7477
GP3	Environmental advertisements expand my understanding of eco-friendly items.	9	22	67	527	425	4.273	.7452
GP4	Environmental advertising helps consumers make wise purchasing decisions.	3	21	27	569	430	4.335	.6550
GP5	An appealing environmental commercial will persuade me to purchase eco-friendly goods.	5	17	43	481	504	4.392	.6892
GP6	Consumers find green marketing to be of low credibility.	134	172	89	292	363	3.550	1.426

Product Code	Parameters						Mean	S.D.
GP7	The environmental promises made in green advertising are vague.	30	82	206	397	335	3.881	1.035

Table 4.3.30 - Actual Green Purchase Behaviour								
Product Code	**Parameters**	Level of Priority (1 = Not a priority, 2 = Low priority, 3 = Medium priority, 4 = High priority, and 5 = Essential)					**Mean**	**S.D.**
		Frequency Count						
		1	2	3	4	5		
P1	Label and brand name	5	23	125	272	625	4.418	.8198
P2	Look and feel	4	75	306	365	300	3.840	.9340
P3	Recommendation from relatives and friends	4	68	219	285	474	4.102	.9715
P4	Persuasion from salesman	25	111	256	334	324	3.782	1.069
P5	Personal research from website and newspaper before purchase	18	24	113	334	561	4.330	.8830
P6	Cost incentive attached like easy EMI, festival offer, free gifts	3	22	86	402	537	4.379	.7481
P7	Energy saving	2	18	77	504	449	4.314	.6988
P8	Convenient to use	00	16	95	573	366	4.228	.6698
P9	Health reasons	2	27	57	332	632	4.490	.7322
P10	Latest and smart technology	00	28	32	215	775	4.654	.6690
P11	Price	00	24	18	133	875	4.770	.5904

4.4 Reliability and Validity of Constructs

The reliability test is performed to determine whether the scale used in the survey can offer consistent and reliable results. The reliability test determines the level of variance in a given scale and reports the results derived by putting one variable against another. There are various methods for calculating internal consistency like Cronbach's Alpha, Split-Half Reliability, Composite Reliability, etc. But, out of the many methods, Cronbach Alpha is considered as the most reliable for assessing internal consistency.

Cronbach alpha was chosen by the majority of the researchers as a measure of the reliability and consistency of the data acquired for the study. When the survey has several Likert Scale questions, measuring the Cronbach is most helpful. As a result, this test determines whether or

not the scale utilised in this study is credible. Cronbach alpha values range from 0 to 1. The closer the Cronbach alpha is to one, the better the reliability. The higher the value, the greater the covariance and correlation between the examined variables. In this study too, Cronbach Alpha has been used to calculate the internal consistency of constructs.

Table 4.4.1: A Snapshot of results of Measurement Assessment – Internal Consistency (Cronbach's Alpha)

Construct	Number Of Items	Cronbach Alpha
Perception towards Eco-Friendly Products	09	0.715
Reasons for Purchase of Eco-Friendly Products	07	0.711
Awareness about Environment	10	0.839
Attitude towards Environmental Protection	08	0.719
Consumers' Energy-Saving Behaviour	09	0.743
Awareness about 'Energy Efficient / GHA	05	0.739
Attitude towards 'Energy Efficient / GHA	08	0.732
Readiness for 'Energy Efficient / GHA	07	0.707
Subjective Social Norms	04	0.752
Moral Norms	06	0.752
Environmental Self-Identity	05	0.778
Warm Glow	07	0.741
Perceived Barriers	10	0.721
Green Purchase Behaviour	03	0.703
Sustainable Development Practices	11	0.897
Green Brand Awareness	05	0.871
Green Brand Image	05	0.771
Perceived Quality	05	0.749
Purchase Intention	04	0779
Green Perceived Product	09	0.702
Green Perceived Price	05	0.778
Green Perceived Place	05	0.744
Green Perceived Promotion	07	0.749

Source: Primary Data (Field Study)

The constructs' values for Cronbach Alpha should be>0.70 (Hair et al., 2019). In the present study, the Cronbach Alpha values were between 0.702 and 0.897, i.e., within the acceptable threshold. From the above table, the values of Cronbach Alpha were above 0.80 for three

constructs - Perceived Knowledge/ Awareness about Environment (AE) (0.839), Sustainable Development Practices (SDP) (0.897) and Green Brand Awareness (GBA) (0.871). Remaining eighteen constructs were having values above 0.70 - perception towards Eco-Friendly products (PEF) (0.715), Reason for purchasing Eco-Friendly Products (REF) (0.711), Attitude towards Environmental Protection (ATTEP) (0.719), Consumers' Energy Savings Behaviour (CESB) (0.743), Awareness about 'Energy Efficient / Green Household Appliances' (AGHA) (0.739), Attitude towards 'Energy Efficient / Green Household Appliances' (ATTGHA) (0.732), Readiness for 'Energy Efficient / Green Household Appliances' (RGHA) (0.707), Subjective Social Norms (SSN) (0.752), Moral Norms (MN) (0.752), Environmental Self-Identity (ESI) (0.778), Perceived Barriers (PB) (0.721), Green Purchase Behaviour (GPB) (0.703), Perceived Green Brand Image (PGBI) (0.771), Perceived Quality (PQ) (0.749), Purchase Intention (PI) (0.779), Green Perceived Product (GPP1) (0.702), Green Perceived Price (GPP2) (0.778), Green Perceived Place (GPP3) (0.744) and Green Perceived Promotion (GPP4) (0.749). Since, the Cronbach's Alpha values for all the constructs were above the threshold value of 0.70 and also they were below 0.90, according to Nunnally (1978), the assessment criteria for internal consistency reliability was satisfied.

Table 4.4.2 Cronbach Alpha of Individual Constructs

Table 4.4.2.1 - Perception towards Eco-Friendly Products			
Constructs	**Items**	**Statements**	**Cronbach α**
	PE1	Are beneficial for the environment	
	PE2	Are healthy	
	PE3	Are dependable and trustworthy	
Perception Towards Eco-Friendly Products	PE4	Have a decent quality/performance	0.715
	PE5	Have a better quality/performance when compared to traditional products	
	PE6	Have a decent taste and/or good fragrance	
	PE7	Have rationally price	
	PE8	Are well advertised	
	PE9	Are available in my nearby community/supermarket	

Table 4.4.2.2 - Reasons for Purchase of Eco-Friendly Products			
Constructs	**Items**	**Statements**	**Cronbach α**
	PK1	They present a positive image of myself.	
	PK2	I wish to preserve the world	
Reasons for Purchase of Eco-friendly Products	PK3	I choose eco-friendly products.	0.711
	PK4	I feel trendy/fashionable when I buy eco-friendly things.	
	PK5	If I do not purchase, others may judge me.	

PK6	I make an impromptu buy of eco-friendly products in a supermarket.
PK7	I was delighted with the majority of the eco-friendly things I purchased.

Table 4.4.2.3 - Perceived Knowledge/ Awareness about Environment			
Constructs	**Items**	**Statements**	**Cronbach α**
Awareness about Environment	PK1	I am aware about Carbon Dioxide (CO_2) emissions from household energy consumption	
	PK2	I know about Zero Carbon Homes	
	PK3	I know about the Government's initiatives to reduce CO_2 Emissions	0.839
	PK4	I am aware about the ill-effects of Climate Change	
	PK5	I am aware about the ill effects of Global Warming	
	PK6	I am aware about the ill effects of Ozone Depletion	
	PK7	I am aware about Ocean Acidification	
	PK8	I am aware about the Loss of Biodiversity	
	PK9	I am aware about the ill effects of all kinds of pollution	
	PK10	I am aware about electricity saving in the home	

Table 4.4.2.4 - Attitude towards Environmental Protection			
Constructs	**Items**	**Statements**	**Cronbach α**
Attitude towards Environmental Protection	AE1	Environmental protection is crucial to me while making purchases of appliances.	
	AE2	Energy-efficient appliances are vital for reducing air pollution.	
	AE3	Energy efficient Appliances are essential in saving natural resources that would be utilised to produce energy, such as coal and water.	0.719
	AE4	If I may pick between energy-efficient and traditional appliances, I favour energy-efficient.	
	AE5	Reducing my household's energy consumption would help protect the environment	
	AE6	It would save me money to reduce my household's energy consumption	
	AE7	Reducing my household's energy consumption would be inconvenient	
	AE8	During the recent past, I have taken steps to reduce my household's energy use	

Table 4.4.2.5 - Consumers' Energy-Saving Behaviour			
Constructs	**Items**	**Statements**	**Cronbach α**
	CE1	I switch off lights and appliances when they're not in use.	
	CE2	I use energy-efficient light bulbs around the house.	
	CE3	I consciously try to change my daily habits for energy savings	

Consumers' Energy-Saving Behaviour	CE4	I use energy saving household appliances	0.743
	CE5	I consciously put an effort to reduce the amount of usage of household appliances. (Cooking, heating and cooling etc.)	
	CE6	I believe in replacing older appliances which might be less energy efficient.	
	CE7	I use smart power strip devices to manage the usage of my household appliances in a smart way	
	CE8	I made an attempt to reduce the frequency of use of household equipment in order to reduce energy consumption.	
	CE9	I look for cutting out air leaks to reduce draughts.	

Table 4.4.2.6 - Awareness about 'Energy Efficient / GHA			
Constructs	**Items**	**Statements**	**Cronbach α**
Awareness about 'Energy Efficient / Green Household Appliances'	CE1	I am aware with Energy Efficient / Green Household Appliances.	
	CE2	I understand the environmental implications of Energy Efficient / Green Household Appliances.	0.739
	CE3	I am educated about energy rating labels.	
	CE4	I am knowledgeable with energy-efficient and green household appliances.	
	CE5	I am educated about the advantages of utilising energy-efficient / green household appliances.	

Table 4.4.2.7 - Attitude towards 'Energy Efficient / GHA			
Constructs	**Items**	**Statements**	**Cronbach α**
Attitude towards 'Energy Efficient / Green Household Appliances'	AE1	Energy Efficient / Green Household Appliances play an essential role in reduce air pollution	
	AE2	Energy Efficient/Green Household Appliances are essential in saving natural resources that would be utilised to produce energy, such as coal and water.	
	AE3	I am assured that Energy Efficient / Green Household Appliances are always premium in price	
	AE4	I am assured that Energy Efficient / Green Household Appliances could be a useful in long-run	0.732
	AE5	I feel that Energy Efficient / Green Household Appliances are a major ecological need, not merely a marketing tool.	
	AE6	If I were to choose between energy efficient and traditional appliances, I'd prefer energy efficient.	
	AE7	I believe that attractive government promotions on green items would help promote them.	
	AE8	I would recommend that others buy and use energy-efficient / green household appliances.	

Table 4.4.2.8 - Consumers' Readiness for 'Energy Efficient / GHA			
Constructs	**Items**	**Statements**	**Cronbach α**
Consumers' Readiness for 'Energy Efficient / Green Household Appliances'	CR1	I am a strongly believe and advocate of Energy Efficient / Green Household Appliances.	0.707
	CR2	I do believe in using Green Products but am not a strong promoter of Energy Efficient Appliances.	
	CR3	I am a modest believer of Green Products but not thought much on the issue.	
	CR4	I have not much to do with green initiatives. Government should take measures.	
	CR5	I am the least concerned about environmentalism. The government and industry should promote and address these challenges.	
	CR6	If my disposable income grew, I would definitely go with Energy Efficient / Green Household Appliances.	
	CR7	According to me, the most significant barrier to purchasing Energy Efficient / Green Household Appliances is the price.	

Table 4.4.2.9 - Subjective Social Norms			
Constructs	**Items**	**Statements**	**Cronbach α**
Subjective Social Norms	SS1	The majority of the individuals that are significant to me believe that I should get Energy Efficient / Green household appliances.	0.752
	SS2	The majority of those who are significant to me expect me to purchase energy-efficient / green household appliances.	
	SS3	Most of the people who are important to me would support my purchasing Energy Efficient / Green Household Appliances next time.	
	SS4	People whose opinions I value would choose energy-efficient or green household appliances instead of conventional ones.	

Table 4.4.2.10 - Moral Norms			
Constructs	**Items**	**Statements**	**Cronbach α**
Moral Norms	MN1	I personally feel obligated to buy energy-efficient / green household appliances for the sake of the environment.	0.752
	MN2	I feel bad when I purchase electrical items that harm the environment.	
	MN3	Purchasing electrical appliances that harm the environment is morally unacceptable for me.	
	MN4	Purchasing electrical appliances that harm the environment would violate my ethics.	
	MN5	People like me have a duty to help to environmental conservation by avoiding electrical devices that harm the environment.	

	MN6	Everyone should help promote green electrical appliance production by purchasing only energy-efficient / green household appliances.	

Table 4.4.2.11 - Environmental Self-Identity			
Constructs	**Items**	**Statements**	**Cronbach α**
Environmental Self-Identity	ES1	I think of myself as someone who cares about the environment.	0.778
	ES2	I consider myself to be a customer that cares about the environment.	
	ES3	I want my loved ones to think of me as an environmentally conscious person.	
	ES4	If I weren't thought of as leading an environmentally conscious lifestyle, I would be ashamed.	
	ES5	Investing in green or energy-efficient household appliances gives me the impression that I am a consumer who cares about the environment.	

Table 4.4.2.12 - Warm Glow			
Constructs	**Items**	**Statements**	**Cronbach α**
Warm Glow	WG1	I like to help safeguard the environment by acquiring energy-efficient / green household appliances.	0.741
	WG2	I admire people who voluntarily buy energy-efficient or green household appliances.	
	WG3	I have the sense of commitment to the wellness of humanity when purchasing Energy Efficient / Green Household Appliances.	
	WG4	Purchasing energy-efficient / green household appliances makes me happy since they assist to safeguard the environment.	
	WG5	Purchasing Energy Efficient / Green Household Appliances makes me feel good because it allows me to reduce my household energy consumption.	
	WG6	Buying Energy Efficient / Green Household Appliances helps me feel good since they help me minimise my electricity cost.	
	WG7	When I buy green things, such as energy-efficient appliances, I feel good about myself.	

Table 4.4.2.13 - Perceived Barriers			
Constructs	**Items**	**Statements**	**Cronbach α**
Perceived Barriers	WG1	I cannot pay premium price to purchase Energy Efficient / Green Household Appliances.	0.721
	WG2	While shopping, I can't easily differentiate between energy efficient and traditional electrical appliances	
	WG3	I require a lot of extra time to buy Energy Efficient Appliances	
	WG4	I am not assertive about the trustworthiness of energy rating labels	
	WG5	Lack of Information/Awareness about green products is responsible for its low demand.	
	WG6	Lack of Availability / Unease of Access of green products is responsible for its low demand.	
	WG7	Cost savings from green products are lower than anticipated.	
	WG8	I fear of being cheated in the term of green products.	
	WG9	Reluctance to change is responsible for the little demand of green products.	
	WG10	Lack of proper advertising of green products is accountable for its low demand.	

Table 4.4.2.14 - Green Purchase Behaviour			
Constructs	**Items**	**Statements**	**Cronbach α**
Green Purchase Behaviour	GP1	I buy Energy Efficient Appliances	0.703
	GP2	I am ready to shift from conventional appliances to Energy Efficient Appliances	
	GP3	I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances	

Table 4.4.2.15 - Dimensions Determining To 'Sustainable Consumption Behaviour'			
Constructs	**Items**	**Statements**	**Cronbach α**
Sustainable Development Practices	SD1	Encouraging green design-based construction and refurbishment	0.897
	SD2	Encouraging Energy conservation methods in household and business purposes as well.	
	SD3	Discouragement of waste production methods	
	SD4	Promoting the recycling of solid waste, such as e-waste, paper, plastic, and metal.	
	SD5	Supporting the programme for sustainable food	
	SD6	Promoting water-saving measures in residential and business settings	
	SD7	Encouraging methods of sustainable land management.	
	SD8	Promoting sustainable mobility initiatives such as bus pass programmes, carpooling for non-motorized vehicles, etc.	

	SD9	Promote the purchase of eco-friendly products from reputable vendors.	
	SD10	Cut down on radioactive and hazardous waste	
	SD11	Promote environmental auditing in order to promote sustainable development.	

Table 4.4.2.16 - Green Brand Awareness			
Constructs	**Items**	**Statements**	**Cronbach α**
Green Brand Awareness	GB1	I am aware of the work green brands do to protect the environment.	0.871
	GB2	I've noticed a few environmental tags for the many eco-friendly companies.	
	GB3	I understand the significance of the environmental phrases and icons that readily available green brands employ in their advertising campaigns.	
	GB4	Some of the environmental emblems used by the many green firms in their marketing campaigns are ones that I can still recall.	
	GB5	I will choose to choose a green brand if I see an environmental label on it.	

Table 4.4.2.17 - Perceived Green Brand Image			
Constructs	**Items**	**Statements**	**Cronbach α**
Perceived Green Brand Image	PG1	The greatest standard for environmental promises, in my opinion, is the brands of green items.	0.771
	PG2	The environmental reputation of the green brands is managed expertly.	
	PG3	The green brands that are readily available function well in terms of the environment.	
	PG4	A green product's brand genuinely focuses on environmental commitments.	
	PG5	Green goods brands have a strong reputation for caring about the environment.	

Table 4.4.2.18 - Perceived Quality			
Constructs	**Items**	**Statements**	**Cronbach α**
Perceived Quality	PQ1	The quality of green brands is higher than that of traditional ones.	0.749
	PQ2	The quality of green brands is consistent when compared to conventional ones.	
	PQ3	When compared to traditional brands, the quality of green brands is consistent and efficient.	
	PQ4	The quality of green brands is significantly higher than that of conventional ones.	
	PQ5	The quality of green brands is significantly superior than that of conventional ones.	

Table 4.4.2.19 - Purchase Intention			
Constructs	**Items**	**Statements**	**Cronbach α**
Purchase Intention	PQ1	Because of its commitment to the environment, using green items makes sense instead of other products.	0.779
	PQ2	I would rather use products that have environmental obligations, even if they have the same features as another product.	
	PQ3	Even if there is a better product than green items, I would rather use the greed one.	
	PQ4	Using green items makes sense if other products do not pose a threat to the environment.	

Table 4.4.2.20 - Green Perceived Product			
Constructs	**Items**	**Statements**	**Cronbach α**
Green Perceived Product	GP1	I find green-branded goods to be trustworthy.	0.702
	GP2	Greener products are superior to non-green ones.	
	GP3	Green brands, in my opinion, don't fully fulfil the greening process.	
	GP4	Green labels are simple to identify	
	GP5	I think Green Labels are a great resource when selecting a product.	
	GP6	Green labels persuade me to buy the goods.	
	GP7	The packaging makes a green product easier to identify.	
	GP8	Environmentally friendly packaging appeals to me more than non-eco-friendly packaging.	
	GP9	I like to purchase goods packaged in an environmentally responsible manner.	

Table 4.4.2.21 - Green Perceived Price			
Constructs	**Items**	**Statements**	**Cronbach α**
Green Perceived Price	GP1	I'm willing to spend more money on eco-friendly things.	0.778
	GP2	Green items are nice, but they cost a lot of money.	
	GP3	My main consideration when choosing green items is price.	
	GP4	Even though I would prefer to purchase eco-friendly goods, I am unable to do so.	
	GP5	If green products are just as expensive as my preferred brands, I'll switch to them.	

Table 4.4.2.22 - Green Perceived Place			
Constructs	**Items**	**Statements**	**Cronbach α**
Green Perceived Place	GP1	I see green products all the time in my area.	
	GP2	Green products are readily available in my area.	
	GP3	In my community, I have no trouble locating environmentally friendly products.	
	GP4	There are no green products at the stores where I shop.	0.744
	GP5	If green items are readily available, I might buy them.	

Table 4.4.2.23 - Green Perceived Promotion			
Constructs	**Items**	**Statements**	**Cronbach α**
Green Perceived Promotion	GP1	I like to see advertisements that highlight the environmental benefits of products.	
	GP2	I'm interested in green advertising.	
	GP3	Environmental advertisements expand my understanding of eco-friendly items.	
	GP4	Environmental advertising helps consumers make wise purchasing decisions.	0.749
	GP5	An appealing environmental commercial will persuade me to purchase eco-friendly goods.	
	GP6	Consumers find green marketing to be of low credibility.	
	GP7	The environmental promises made in green advertising are vague.	

4.4.3 Validity Check of Constructs:

4.4.3.1 Content Validity in Instrumentation

Content validity is crucial for ensuring that an instrument accurately measures the variables it is intended to assess. It is also referred to by several other names, including content-related validity, intrinsic validity, relevance validity, representative validity, and logical or sampling validity. This type of validity focuses on the adequacy of the content domain covered by an instrument, ensuring that the items in a questionnaire are representative and comprehensive.

Evaluating instruments for content validity was defined by Lawshe (1975) as "the extent to which communality or overlap exists between (a) performance on the test under investigation and (b) ability to function in the defined job performance domain" (p. 566). In other words, content validity measures the extent to which instruments measure the vital aspects of the job. Instruments that can be tested with the Lawshe approach include "the items on a test, questions in an interview, or elements of a set of

accreditation standards" (Wilson, Pan, & Schumsky, 2012, p. 197). To test content validity using the Lawshe approach, one selects an expert panel (Content Evaluation Panel) on the subject to review the instrument. The experts have advanced knowledge of the aspects of performing the job well. Typically, a Content Evaluation Panel of 5-10 members is acceptable; although content validity can be calculated with up to 40 panel members, greater than 10 members is typically unnecessary (Lynn, 1986).

Content validity measures the consensus of the experts agreeing that items on the instrument are essential to measuring constructs. The Content Evaluation Panel members are provided a copy of the instrument in question and then rate each of the items on the instrument with a Lawshe rating scale. For each item, they mark one of three scale points, according to whether the item represents a knowledge or skill essential for the job function or cognitive task it is intended to measure. They may mark each item as Essential; Useful, but not Essential; or Not Necessary. If there is a consensus among experts that the item is essential for measuring what the item intends, the item is said to have some level of content validity. If they disagree, the content validity of the item would be in question. The more disagreement about the essentialness of an item, the less valid the item may be (Lawshe, 1975).

To examine the content validity of each item on an instrument, a formula was proposed by Lawshe (1975) and confirmed by later researchers as a generally accurate method of calculating and interpreting content validity results (Ayre & Scally, 2014). The value is called the Content Validity Ratio (CVR), which is a direct linear transformation of the number of raters agreeing an item is Essential. The results of the CVR can help determine which items should be revised or removed from the instrument. The formula is:

Content Validity Ratio (CVR) = (ne − N/2) / (N/2)

where:

- **ne** = number of experts/panellists indicating an item is essential
- **N** = total number of expert/panellists

This formula may be computed using a calculator, but for instruments with a large number of items, and/or Content Evaluation Panels with a large number of members, it is a time-consuming process with opportunities for calculation errors. In examples provided by Lawshe (1975), there may be hundreds of items on a single observation instrument for job performance.

Another component of content validity in the Lawshe approach is Proportions Agreeing Essential (PAE). The PAE represents the proportion of experts who rated an item as Essential out of the total number who rated the item. Although it is not as strong an indicator of content validity as CVR, it may give some indication of the content validity of items. It is calculated using the formula (Lawshe, 1975):

Proportions Agreeing Essential (PAE) $= ne/N$

- **ne** = number of experts/panellists indicating an item is essential
- **N** = total number of expert/panellists

A final statistic, and sometimes the only statistic, that is reported when using the Lawshe approach is the Critical Validity Index (CVI). The CVI is the estimated content validity of all combined items (i.e., the entire instrument). Lawshe (1975) operationally defined it as, "the average percentage of overlap between the test items and the job performance domain" (p. 569). In other words, it is the overlap between the tasks required to perform a job well and the tasks of the job as measured by the instrument. Lawshe and others (such as Gilbert & Prion, 2016) recommended calculating CVI using the mean CVR of all final items included on the instrument. The CVI of instruments can be calculated as:

CVI $= \bar{x}(ICVR)$

This formula represents the mean $(\bar{x})$ of all individual item CVRs $(ICVR)$.

It is important to note that in the Lawshe approach, weighting of items may not be necessary. Each item is a discrete rating; whether a task on an instrument represents only a small portion of the total job, if it is still an essential task, the CVI is typically calculated without weighting (Lawshe, 1975). This formula, if computed by hand, is often an arduous task, due to inputting each item CVR in a calculator, which are in decimal form and typically rounded to the hundredths place.

There is no complete objective method for determining the content validity of an instrument nor is any statistical approach (Polit 1991), and Dempsey (1986). Content validity is an important factor in identifying the concept of measuring; however, it is not a sufficient indication that the instrument measures what is that intended to measure. Finding from content validity could contribute to support the construct validity of an instrument.

4.4.3.2 Content Validity Check of the Questionnaire for the Current Study:

For the current study, the researcher had decided to check the content validity through literature review and experts. The researcher addressed content validity with the beginning of the instrument development itself.

The first step of the instrument development was to identify 'what domain of construct' should be measured. The researcher has identified three major domains for the current study: Pro-environmental behaviour, Green household appliances, and sustainable consumption. An extensive literature review related to these three major domains of study was undertaken by the researcher. Scales proposed by known researchers in the past studies were identified and the relevance of these scales was established keeping in mind the objectives and scope of the research study. Required modifications in some of the items of the scales was done. Further, the research instrument i.e., the questionnaire was mailed to eight different experts, four belonging to academia and 4 belonging to the industry. Professors having an expertise in the domain of marketing of reputed higher education institutes and senior professionals holding the position of not less than a Vice-president (Marketing) of reputed corporates were consulted. The researcher mailed a copy of the questionnaire consisting of close ended questions and various constructs focusing on the three major domains of the research along with the focus on the purpose and objectives of the study to each of them individually. The questionnaire mailed was also supplemented with a copy of the research proposal.

For determining content validity of items, CVR values can be compared against established thresholds by generally accepted literature sources. Validity guidelines established by CAEP (Chepko, 2016) and Lawshe (1975) support the claim that any item with over 50% reviewer agreement of an *Essential* rating (or, PAE = .50) does maintain some level of content validity. However, more sophisticated statistical analyses have concluded that the CVR value is a more accurate measurement of content validity.

The CVR values range from –1, which represents a perfect disagreement (or, no panel members mark an item as Essential) to +1, which is a perfect agreement (all panel members mark an item as Essential). Ayre and Scally (2014) constructed a table of acceptable CVR values, similar to that originally proposed by Lawshe (1975), which may be used as a comparison for acceptable item CVR according to the number of experts on the Content Evaluation Panel (see their publications for the complete tables).

The number of Content Evaluation Panel members determines the level of acceptable CVR values. If using up to seven Content Evaluation Panel members, all members must agree that an item is essential for it to demonstrate acceptable content validity (PAE = 1, CVR = 1.00; Ayres & Scally, 2014). However, if using 20 panel members, only 15 must agree that an item is essential to meet the content validity criteria (PAE = .75, CVR = .500; Ayres & Scally, 2014). This is simply explained because it is far more difficult to get larger groups of experts to agree on a single concept than it is a smaller group.

After calculating the item CVRs, any items that do not meet the threshold should be revised and retested or removed from the final instrument. Once items that have not demonstrated CVR are deleted, the mean of individual item CVRs is then calculated to determine the CVI. Some recommend that an acceptable CVI for an instrument is .70 or greater (Tilden, Nelson, & May, 1990). Some scholars, such as Polit, Beck, and Owen (2007) recommend that any CVI value of .78 demonstrates instrument validity, or more stringent thresholds estimate an acceptable CVI as .80 (Davis, 1992). Obviously, a greater CVI is preferred, although if using a small panel of seven or fewer members, the CVI must theoretically be close to 1.00 to be considered valid (since any individual item with a CVI less than that should have been deleted), while a panel with 20 members would demonstrate a lower CVI, but still be considered valid, due to the lower CVR threshold requirement with larger panels.

To compute the content validity, refer the following table for the purpose of providing an example of the formula calculations using the Excel formulas.

Table 4.4.3.1.1: Content Validity - Item ratings for an Individual Construct (Example)

Rater	Are beneficial for the environment			Are healthy			Are dependable and trustworthy			Have a decent quality/performance			Have a better quality/performance when compared to traditional products		
	ER1	UR1	NR1	ER2	UR2	NR2	ER3	UR3	NR3	ER4	UR4	NR4	ER5	UR5	NR5
Rater 1	1			1					1	1			1		
Rater 2	1			1			1			1				1	
Rater 3	1			1			1			1			1		
Rater 4	1					1	1			1			1		
Rater 5	1			1			1			1			1		
Rater 6	1			1			1			1			1		
Rater 7	1			1			1					1	1		
Rater 8	1			1			1				1		1		
TOTAL	8	0	0	7	0	1	7	0	1	6	1	1	7	1	0

The "Rater" heading consists of item-level data of each rater.

ER stands for Essential Rating; UR stands for Useful, but not Essential Rating, and NR stands for Not Essential Rating.

Likewise, other set is also created (ER2, UR2, NR2), which represent the second item. We have taken five items in this construct as an example.

Hence the last three columns of the data set are (ER5, UR5, NR5)

Table 4.4.3.1.2: Content Validity – CVR & PAE of values an Individual Construct (Example)

Description of Item	Essential	Useful but Not Essential	Not Essential	CVR	PAE
CONSTRUCT – Perception Towards Eco-friendly Products					
Are beneficial for the environment	8	0	0	1	1
Are healthy	7	0	1	0.75	0.875
Are dependable and trustworthy	7	0	1	0.75	0.875
Have a decent quality/performance	6	1	1	0.5	0.75
Have a better quality/performance when compared to traditional products	7	1	0	0.75	0.875
TOTAL	35	2	3	CVI = 0.75	PAE = 0.875

Table 4.4.3.1.3: Content Validity – **Items Within the Construct Retained / Discarded**

Item	Ne	Nu	Nn	CVR	PAE	Ayre and Scally
CONSTRUCT – Perception Towards Eco-friendly Products						
Items Within the Construct Retained / Discarded						
Are beneficial for the environment	8	-	-	1	1	Met & Retained
Are healthy	7	-	1	0.75	0.875	Met & Retained
Are dependable and trustworthy	7	-	1	0.75	0.875	Met & Retained
I believe it's a better product (Better design, higher quality)	6	1	1	**0.5**	0.75	**Not Met & Discarded**
Have a better quality/performance when compared to traditional products	7	1	-	0.75	0.875	Met & Retained

The researcher analysed the results of the content validity of the scale. The Content Validity Ratio (CVR) for each item of every construct in the questionnaire was calculated.

Further, Content Validity Index (CVI) was calculated for each construct by taking the average of CVR scores of all items within a given construct. Thus, CVI was calculated for all constructs of the questionnaire. The CVI score of each construct was compared with the critical value of 8 experts (0.75). The items of constructs having a CVI score more than 0.75 were retained and the rest were discarded. Further, the retained items were modified based on the experts' opinion.

On similar line, content validity check was conducted for all items of all constructs of preliminary questionnaire and items of constructs having CVI more than 0.75 were retained for the final questionnaire. Due to space limitation (in context of large number of items viz., around 12 items in the construct of sustainable development practices/sustainable consumption behaviour), the same could not be shown in the thesis.

4.5 ANALYSIS OF RESEARCH OBJECTIVES AND RELATED HYPOTHESIS:

In order to explore the expected relationships and the magnitude of relationships between the specified variables in the proposed hypothesis, the researcher has applied correlation and regression techniques using the Statistical Package for Social Sciences (SPSS) Version 21. Correlation presents the strength and direction of a linear relationship between two variables, whereas regression presents the nature of the relationship by a mathematical equation (Das et al., 2020). For this study, Pearson correlation method was used to measure the correlation between the hypothesized variables.

4.5.1 RELATIONSHIP BETWEEN PRO-ENVIRONMENT BEHAVIOUR AND ENERGY SAVING (Objective 1)

H_{O1}: There is no significant relationship between Pro-Environment Behaviour and Energy Saving.

Table 4.5.1.1: Pro-Environmental Behaviour and Energy Saving

	Pro-Environmental Behaviour	
	Pearson's Correlation	0.241
Energy Saving	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Pro-environmental behaviour and Energy Savings. The value of Correlation coefficient (r) is 0.241 which indicates that there is a low degree of positive correlation between Pro-environmental Behaviour and Energy Savings of the respondents. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. On the basis of statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that though weak but there is a positive correlation between Pro-environmental Behaviour and Energy Savings.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.1.2: Model Summary for Pro-Environmental Behaviour and Energy Savings

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.241[a]	.058	.057	.4381867

Above table shows coefficient of determination (R Square) 0.058, which means 5.8% variation in dependent variable (Energy savings) is explained by independent variable (Pro-environmental Behaviour).

Table 4.5.1.3: ANOVA for PEB and Energy Savings

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.358	3	12.358	64.364	.000[b]
	Residual	201.032	1047	.192		
	Total	213.390	1050			

a. Dependent Variable: Energy Savings
b. Independent Variable: Pro-environmental Behaviour

Above table tries to test overall goodness of fit of fitted regression model. From above table, it Cronbach Alpha n be concluded that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.1.4: Coefficients for Pro-Environmental Behaviour and Energy Savings

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.929	.126		23.250	.000
I switch off lights and appliances when they're not in use.	-.006	.019	-.011	-.326	.744
I use energy-efficient light bulbs around the house.	-.025	.022	-.039	-1.106	.269
I consciously try to change my daily habits for energy savings	.012	.021	.019	.570	.569
I use energy saving household appliances	.013	.022	.022	.589	.556
I consciously put an effort to reduce the amount of usage of household appliances. (Cooking, heating and cooling etc.)	-.036	.023	-.059	-1.589	.112

I believe in replacing older appliances which might be less energy efficient.	.088	.017	.171	5.062	.000
I use smart power strip devices to manage the usage of my household appliances in a smart way	.050	.010	.159	5.207	.000
I made an attempt to reduce the frequency of use of household equipment in order to reduce energy consumption.	.053	.015	.113	3.582	.000
I look for cutting out air leaks to reduce draughts	.059	.018	.108	3.311	.001

Above table presents an overview of regression coefficients of Pro-environmental behaviour on energy savings.

Among the nine pro-environmental behaviours studied, the regression coefficients (Beta) of four of the Pro-environmental behaviours (i.e., I believe in replacing older appliances which might be less energy efficient; I use smart power strip devices to manage the usage of my household appliances in a smart way; I made an attempt to reduce the frequency of use of household equipment in order to reduce energy consumption; and I look for cutting out air leaks to reduce draughts) on energy savings is found to be 0.088, 0.050, 0.053, and 0.059 respectively. Also, the regression coefficients (Beta) of these pro-environmental behaviours are significant as P-value (0.00) and (0.001) is less than significance level .05. Thus, we conclude that the above mentioned four pro-environmental behaviours are strong predictors of energy savings.

Whereas the regression coefficients of the remaining six pro-environmental behaviours are non-significant. The Beta coefficients of pro-environmental behaviours [I switch off lights and appliances when they're not in use, I use energy-efficient light bulbs around the house, and I consciously put an effort to reduce the amount of usage of household appliances. (Cooking, heating and cooling etc.)] show negative relationship with energy savings.

4.5.2 BEHAVIOUR PATTERN OF SELECTED GREEN HOUSEHOLD APPLIANCES (Objective 2)

- To understand the behaviour pattern of selected green household appliances, respondents were asked regarding their purchase of / and reasons for purchasing Star rated appliance in the last three years. It was observed that 996 (94.9 %) of the respondents had purchased a star rated appliance and only 54 (5.1%) did not purchase it.

- Out of the 996 respondents, 971 (97.50 %) agreed that they even paid a higher price for star rated appliance.

- Respondents were asked if they prefer buying star rated products. It was found that 1021 (97.2 %) of the respondents prefer buying star rated product.

Graph 4.1: Venn Diagram of Reasons for purchasing star rated Household Appliances
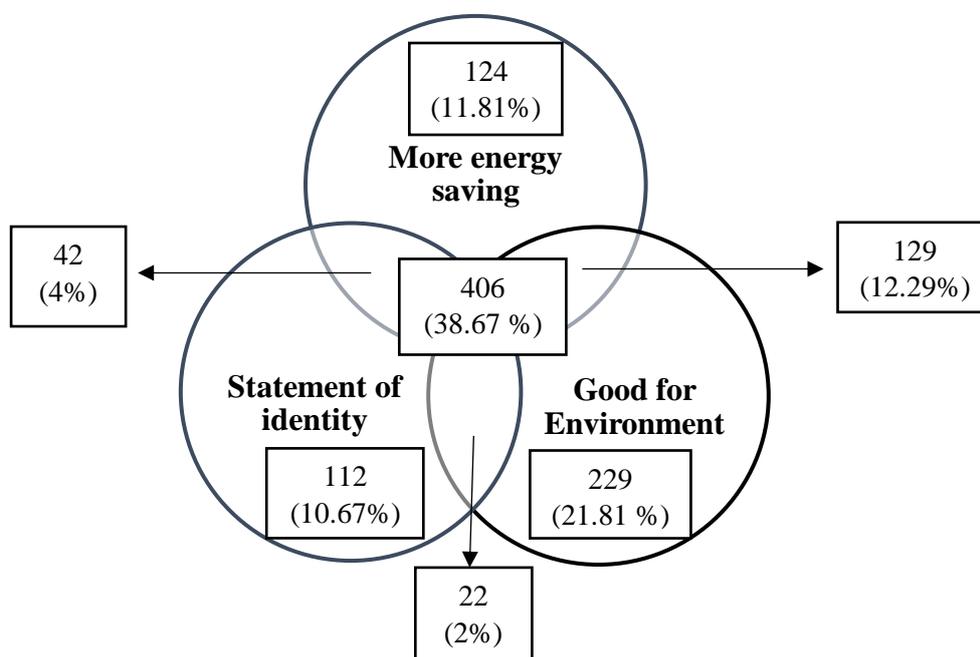
Source: Authors' Compilation

- To understand the meaning and the reasons influencing respondent to purchase star rated household appliances, three statements were asked that according to them star rated products mean – More energy saving, Statement of identity and Good for environment. It was observed that 124 (11.81 %) respondents believe that star rated products help in more energy savings. 229 (21.81 %) responded that they are good for environment. Where else, 112 (10.67 %) respondents consider star rated products as statement of identity. 129 (12.29 %) respondents selected that star rated products are more energy saving as well as Good for the environment. 42 (4 %) of the consumers responded that star rated products are more energy saving and statement of identity. Only 22 (2 %) selected that star rated products are Good for the environment and are a statement of identity. Maximum respondents 406 (38.67%) believe that star rated

products are a combination of more energy saving, Statement of identity and Good for environment.

4.5.3 CONSUMERS' AWARENESS, ATTITUDE AND INFLUENCE/READINESS TOWARDS GREEN PURCHASE BEHAVIOUR. (Objective 3)

Table 4.5.3.1: Awareness About 'Energy Efficient / Green Household Appliances'

Knowledge/ Awareness About 'Energy Efficient / Green Household Appliances'					
Knowledge/ Awareness about 'Energy Efficient / Green Household Appliances'	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)				
	Frequency Count				
	1	2	3	4	5
I am aware with Energy Efficient / Green Household Appliances.	4	12	79	764	191
I understand the environmental implications of Energy Efficient / Green Household Appliances.	4	10	48	689	299
I am educated about energy rating labels.	7	14	40	555	434
I am knowledgeable with energy-efficient and green household appliances.	3	15	19	605	408
I am educated about the advantages of utilising energy-efficient / green household appliances.	2	15	27	534	472

To understand the knowledge/ awareness of the respondents in relation to Energy Efficient/ Green Household Appliances five statements were asked to them. 764 respondents agreed that they are aware with Energy Efficient / Green Household Appliances. 689 respondents also agreed that they understand the environmental implications of Energy Efficient / Green Household Appliances. A negligible number of respondents disagreed with the fact that they are not educated about the advantages of utilising energy-efficient / green household appliances.

Table 4.5.3.2: Attitude Towards 'Energy Efficient / Green Household Appliances'

Attitude Towards 'Energy Efficient / Green Household Appliances'					
Attitude towards 'Energy Efficient / Green Household Appliances'	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)				
	Frequency Count				
	1	2	3	4	5
Energy Efficient / Green Household Appliances play an essential role in reduce air pollution	2	13	83	622	330
Energy Efficient/Green Household Appliances are essential in saving natural resources that would be utilised to produce energy, such as coal and water.	2	19	46	646	337
I am assured that Energy Efficient / Green Household Appliances are always premium in price	32	72	90	402	454
I am assured that Energy Efficient / Green Household Appliances could be a useful in long-run	00	15	25	496	514
I feel that Energy Efficient / Green Household Appliances are a major ecological need, not merely a marketing tool.	3	15	58	482	492
If I were to choose between energy efficient and traditional appliances, I'd prefer energy efficient.	00	12	31	443	564
I believe that attractive government promotions on green items would help promote them.	2	18	40	443	547
I would recommend that others buy and use energy-efficient / green household appliances.	00	14	29	347	660

The attitude of consumers plays a crucial role in their decision to purchase green household appliances. Attitude, in this context, refers to the consumer's overall evaluation, feelings, and predisposition toward environmentally friendly products. When respondents were asked questions in relation to their attitude, it was observed that 646 respondents agreed that Energy Efficient/Green Household Appliances are essential in saving natural resources that would be utilised to produce energy, such as coal and water. 622 respondents also belived that Energy Efficient / Green Household Appliances play an essential role in reduce air pollution. All the respondents in the study disagreed to the fact that they will not recommend that others buy and use energy-efficient / green household appliances. Similarly, none of the respondent was unsure that Energy Efficient / Green Household Appliances could be a useful in long-run.

Table 4.5.3.3: Consumer Readiness for 'Energy Efficient / Green Household Appliances'

Consumer Readiness for 'Energy Efficient / Green Household Appliances'	Level of Agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Strongly Agree)				
Consumer Readiness for 'Energy Efficient / Green Household Appliances'	**Frequency Count**				
	1	2	3	4	5
I am a strongly believe and advocate of Energy Efficient / Green Household Appliances.	51	97	257	531	114
I do believe in using Green Products but am not a strong promoter of Energy Efficient Appliances.	46	86	96	554	286
I am a modest believer of Green Products but not thought much on the issue.	158	149	128	400	215
I have not much to do with green initiatives. Government should take measures.	354	184	95	245	172
I am the least concerned about environmentalism. The government and industry should promote and address these challenges.	370	174	100	217	189
If my disposable income grew, I would definitely go with Energy Efficient / Green Household Appliances.	11	33	73	393	540
According to me, the most significant barrier to purchasing Energy Efficient / Green Household Appliances is the price.	5	30	57	334	624

Consumer readiness is a critical factor in the purchase of green household appliances, as it encompasses a consumer's willingness, ability, and preparedness to adopt eco-friendly products. This readiness is essential for overcoming barriers to purchasing and embracing eco-friendly products that contribute to a more sustainable future. Maximum respondents (624) strongly agreed that according to them, the most significant barrier to purchasing Energy Efficient / Green Household Appliances is the price. 554 respondents agreed that believe in using Green Products but am not a strong promoter of Energy Efficient Appliances. 370 of the respondents disagreed that they have not much to do with green initiatives. Government should take measures. It can be seen that they consider it their duty to make green initiatives. Respondents also do not agree that they are the least concerned about environmentalism.

4.5.4 RECOGNITION OF ECO-LABELS (Objective 4)

Table 4.5.4.1 - Recognition of Green/Eco-Labels		
Green Eco-labels	**Yes**	**No**
	1002 (95.43 %)	**48** (4.57 %)
	715 (68.09 %)	**335** (31.90 %)
	917 (87.33 %)	**133** (12.67 %)
	262 (24.95 %)	**788** (74.90 %)
	917 (87.33 %)	**133** (12.67 %)
	893 (85.08 %)	**157** (14.95 %)
	818 (77.75 %)	**232** (22.09 %)
	208 (19.81 %)	**842** (80.04 %)
	150 (14.28 %)	**900** (85.71 %)

The above nice Green Eco-labels were selected by the research as they are most commonly seen and used. They include – 100% Eco-label, logo of Bureau of Energy Efficiency, Energy star label, Green seal, logo of Recycle-Reuse-Reduce, Star rating on appliance, label of energy efficient on appliances, USDA Organic and India Organic. When consumers were asked upon

their level of awareness for eco-labels, it was observed that, maximum respondents were aware about 100% Eco-label (95.43%), Energy Star label (87.33%), Recycle-Reuse-Reduce (87.33%) and Star rating on appliance (85.08%). It was also observed that majority of the respondents were unaware of India Organic (85.71%), USDA Organic (80.04%) and Green seal (74.90%).

4.5.5 IMPACT OF SELECTED FACTORS ON GREEN PURCHASE BEHAVIOUR (Objective 5)

Based on the Review of Literature of similar area conducted in past, the researcher has selected eight factors that influence the decision of buying green household appliances. The selected factors are:

1. Knowledge/ Awareness about 'Energy Efficient/ Green Household Appliances'
2. Attitude towards 'Energy Efficient/ Green Household Appliances'
3. Consumers' Readiness for 'Energy Efficient/ Green Household Appliances'
4. Subjective Social Norms
5. Moral Norms
6. Environmental Self-Identity
7. Warm Glow
8. Perceived Barrier

The researcher has applied correlation, regression and factor analysis test to measure the impact of above factors on Green Purchase Behaviour.

H$_{O10(a):}$ There is no significant relationship between Consumers' Knowledge and Green Purchase Behaviour.

Table 4.5.5.1: Consumers' Knowledge and its influence on GPB

		Consumers' Knowledge
Green Purchase Behaviour	Pearson's Correlation	0.092
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Consumers' Knowledge and Green Purchase Behaviour of Green Household Appliances. The value of Correlation coefficient (r) is 0.092 which indicates that there is a negligible degree of positive correlation between Consumers' Knowledge and Green Purchase Behaviour of Green Household Appliances.

Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. On the basis statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that there is negligible degree of positive correlation Consumers' Knowledge and Green Purchase Behaviour of Green Household Appliances.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.5.2: Model Summary for Consumers' Knowledge and GPB

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.159[a]	.025	.022	.7369

Above table shows coefficient of determination (R Square) 0.025, which means 2.5% variation in dependent variable (Green Purchase Behaviour) is explained by independent variable (Consumers' Knowledge).

Table 4.5.5.3: ANOVA for Consumers' Knowledge and GPB

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.649	3	4.883	8.992	.000[b]
	Residual	568.032	1047	0.543		
	Total	582.681	1050			

Dependent Variable: Green Purchase Behaviour

Independent Variable: Consumers' Knowledge

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be concluded that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.5.4: Coefficients for Consumers' Knowledge and GPB

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.727	.134		20.333	.000
I buy Energy Efficient Appliances	.053	.032	.058	1.654	.098
I am ready to shift from conventional appliances to Energy Efficient Appliances	.097	.033	.109	2.923	.004
I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances	.021	.032	.023	.653	.514

Among the three Green Purchase Behaviours studied, the regression coefficients (Beta) of three behaviour (i.e., I buy Energy Efficient Appliances; I am ready to shift from conventional appliances to Energy Efficient Appliances; I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances) is found to be 0.053, 0.097, and 0.021, and respectively. The regression coefficients (Beta) of these green purchase behaviours are non-significant.

Table 4.5.5.5 - KMO and Bartlett's Test for Consumers' Knowledge and GPB

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.823
Bartlett's Test of Sphericity	Approx. Chi-Square	4399.087
	df	45
	Sig.	.000

The KMO measure of sampling adequacy is 0.823, as the above table demonstrates. Bartlett's Test of Sphericity significant P-Value is 0.000, which is less than 0.05 and indicates that the data is appropriate for factor analysis.

Table 4.5.5.6 - KMO Range Communalities for Consumers' Knowledge and GPB

Model	Initial	Extraction
I know about the Carbon Dioxide (CO_2) emissions from household energy consumption	1.000	.711
I know about Zero Carbon Homes	1.000	.810
I know about the Government's initiatives to reduce CO_2 Emissions	1.000	.770
I am aware about the ill-effects of Climate Change	1.000	.637
I am aware about the ill effects of Global Warming	1.000	.752
I am aware about the ill effects of Ozone Depletion	1.000	.574
I am aware about Ocean Acidification	1.000	.659
I am aware about the Loss of Biodiversity	1.000	.567
I am aware about the ill effects of all kinds of Pollution	1.000	.716
I am aware about electricity saving in the home	1.000	.755

Extraction Method: Principal Component Analysis.

Generally speaking, communalities with a range of less than 0.50 are ignored since they add nothing to the factor analysis. However, in this instance, every range value is greater than 0.50; hence, every value was taken into account when doing the factor analysis.

Table 4.5.5.7 - Total Variance for Consumers' Knowledge and GPB

CT	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	A	B	C	A	B	C	A	B	C
1	4.115	41.150	41.150	4.115	41.150	41.150	3.190	31.904	31.904
2	1.775	17.750	58.900	1.775	17.750	58.900	2.220	22.201	54.104
3	1.061	10.613	69.513	1.061	10.613	69.513	1.541	15.408	69.513
4	.700	6.997	76.510						
5	.535	5.347	81.857						
6	.452	4.516	86.372						
7	.430	4.298	90.671						
8	.402	4.018	94.689						
9	.336	3.356	98.045						
10	.196	1.955	100.000						

Extraction Method: Principal Component Analysis.

A= Total, B= % of Variance, C= Cumulative %

There are three components which have the Initial Eigen Values over 1 and it explains for around 69.513 percent of variation.

Graph 4.2: Scree plot for Consumers' Knowledge and GPB
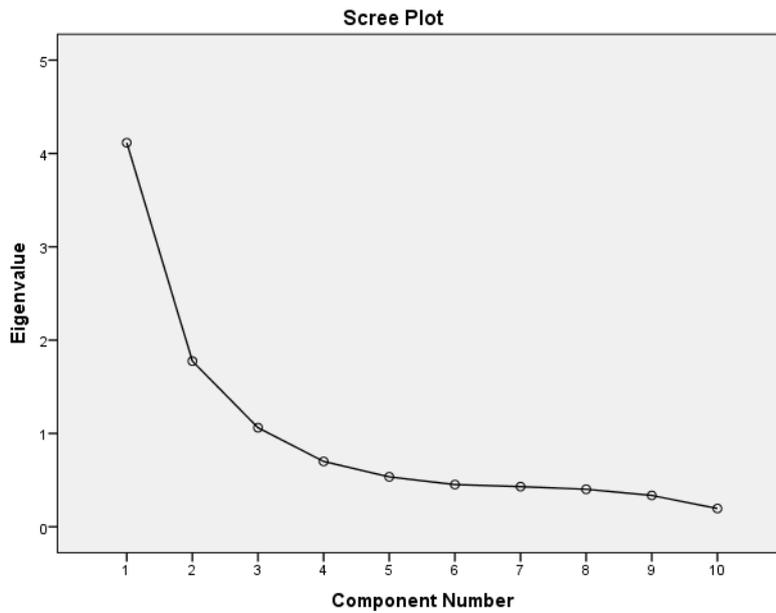
Table 4.5.5.8 - Rotated Component Matrix^a for Consumers' Knowledge and GPB

Model	Component		
	1	2	3
I know about the Carbon Dioxide (CO2) emissions from household energy consumption	.817		
I know about Zero Carbon Homes	.894		
I know about the Government's initiatives to reduce CO2 Emissions	.856		
I am aware about the ill-effects of Climate Change		.681	
I am aware about the ill effects of Global Warming		.857	
I am aware about the ill effects of Ozone Depletion		.628	
I am aware about Ocean Acidification	.790		
I am aware about the Loss of Biodiversity		.624	
I am aware about the ill effects of all kinds of Pollution			.773
I am aware about electricity saving in the home			.865
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 5 iterations.			

The above table shows Principal Component Analysis. Varimax with Kaiser Normalization Rotated method is used in factors rotation. The analysis identified three components. Items having factor loading more than 0.40 is considered.

Factor 1 considers four attributes and explained 41.150% of variance in the data with Eigen value of 4.115. The attributes associated with this factor includes "I know about the Carbon Dioxide (CO_2) emissions from household energy consumption", "I know about Zero Carbon Homes", "I know about the Government's initiatives to reduce CO_2 Emissions", and "I am aware about Ocean Acidification".

Factor 2 considers four attributes and explained 17.750% of variance in the data with Eigen value of 1.775. The attributes associated with this factor includes "I am aware about the ill-effects of Climate Change", "I am aware about the ill effects of Global Warming", "I am aware about the ill effects of Ozone Depletion" and "I am aware about the Loss of Biodiversity".

Factor 3 considers two attributes and explained 10.613 % of variance in the data with Eigen value of 1.061. The attributes associated with this factor includes "I am aware about the ill effects of all kinds of Pollution", and "I am aware about electricity saving in the home".

$H_{O10(b):}$ There is no significant relationship between consumers' attitudes and green purchase behaviour.

Table 4.5.5.9: Consumers' Attitude and Green Purchase Behaviour

	Consumers' Attitude	
Green Purchase Behaviour	Pearson's Correlation	0.146
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Consumers' Attitude and Green Purchase Behaviour towards Green Household Appliances. The value of Correlation coefficient (r) is 0.146 which indicates that there is a negligible degree of positive correlation between Consumers' Attitude and Green Purchase Behaviour towards Green Household Appliances. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. On the basis of statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that there is negligible degree of positive correlation Consumers' Attitude and Green Purchase Behaviour towards Green Household Appliances.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.5.10: Model Summary for Consumers' Attitude and GPB

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.205[a]	.042	.039	.413214

The above table shows coefficient of determination (R Square) 0.042, which means 4.2% variation in dependent variable (Green Purchase Behaviour) is explained by independent variable (Consumers' Attitude).

Table 4.5.5.11: ANOVA for Consumers' Attitude and GPB

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	14.649	3	4.883	8.992	.000[b]
1	Residual	568.032	1047	0.543		
	Total	582.681	1050			

Dependent Variable: Green Purchase behaviour
Independent Variable: Consumers' Attitude

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be said that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.5.12: Coefficients for Consumers' Attitude and GPB

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.717	.075		49.430	.000
I buy Energy Efficient Appliances	.015	.018	.030	.875	.391
I am ready to shift from conventional appliances to Energy Efficient Appliances	.051	.019	.101	2.721	.007

I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances	.061	.018	.119	3.382	.001

Among the three Green Purchase Behaviours studied, the regression coefficients (Beta) of three behaviour (i.e., I buy Energy Efficient Appliances; I am ready to shift from conventional appliances to Energy Efficient Appliances; I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances) is found to be 0.015, 0.051, and 0.061, and respectively. The regression coefficients (Beta) of these green purchase behaviours are non-significant.

Table 4.5.5.13 KMO and Bartlett's for Consumers' Attitude and GPB

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.744
Bartlett's Test of Sphericity	Approx. Chi-Square	1326.384
	df	28
	Sig.	.000

According to the above mentioned results, the sample adequacy KMO score is 0.744. Bartlett's Test of Sphericity significant P-Value is 0.000, which is less than 0.05 and indicates that the data is appropriate for factor analysis.

Table 4.5.5.14 KMO Range Communalities for Consumers' Attitude and GPB

Model	Initial	Extraction
Environmental protection is crucial to me while making purchases of appliances.	1.000	.488
Energy-efficient appliances are vital for reducing air pollution.	1.000	.668
Energy efficient Appliances are essential in saving natural resources that would be utilised to produce energy, such as coal and water.	1.000	.528
If I may pick between energy-efficient and traditional appliances, I favour energy-efficient.	1.000	.569
Reducing my household's energy consumption would help protect the environment	1.000	.599
It would save me money to reduce my household's energy consumption	1.000	.563
Reducing my household's energy consumption would be inconvenient	1.000	.929
During the recent past, I have taken steps to reduce my household's energy use	1.000	.418

Extraction Method: Principal Component Analysis.

Usually the communalities range less than 0.50 is not taken in to consideration as these factors are not contributing anything to the factor analysis. But, in this case, except two values, all the range values are more than 0.50, hence, all the values were considered in the calculation of factor analysis. Communality range of 'Environmental protection is crucial to me while making purchases of appliances' and 'During the recent past, I have taken steps to reduce my household's energy use' are .488 and .418, so they should be excluded from the calculation.

Table 4.5.5.15: Total Variance Explained for Consumers' Attitude and GPB

CT	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	A	B	C	A	B	C	A	B	C
1	2.701	33.757	33.757	2.701	33.757	33.757	2.016	25.202	25.202
2	1.061	13.265	47.022	1.061	13.265	47.022	1.689	21.112	46.314
3	1.001	12.512	59.534	1.001	12.512	59.534	1.058	13.220	59.534
4	.845	10.558	70.091						
5	.793	9.915	80.006						
6	.613	7.660	87.667						
7	.561	7.014	94.681						
8	.426	5.319	100.000						

Extraction Method: Principal Component Analysis.
A= Total, B= % of Variance, C= Cumulative %

There are three components which have the Initial Eigen Values over 1 and it explains for about 59.534 percent of variation.

Graph 4.3: Scree plot for Consumers' Attitude and GPB
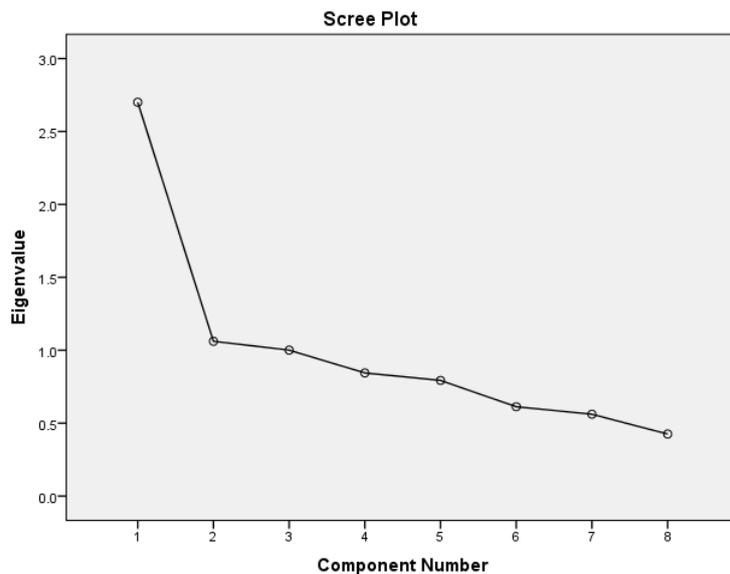
Table 4.5.5.16: Rotated Component Matrix[a] for Consumers' Attitude and GPB

Model	Component		
	1	2	3
Environmental protection is crucial to me while making purchases of appliances.	.675		
Energy-efficient appliances are vital for reducing air pollution.	.809		
Energy efficient Appliances are essential in saving natural resources that would be utilised to produce energy, such as coal and water.	.719		
If I may pick between energy-efficient and traditional appliances, I favour energy-efficient.		.506	
Reducing my household's energy consumption would help protect the environment		.752	
It would save me money to reduce my household's energy consumption		.749	
Reducing my household's energy consumption would be inconvenient			.963
During the recent past, I have taken steps to reduce my household's energy use		.505	

Extraction Method: Principal Component Analysis.

 Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

The above table shows Principal Component Analysis. Varimax with Kaiser Normalization Rotated method is used in factors rotation. The analysis identified three components. Items having factor loading more than 0.40 is considered.

Factor 1 considers three attributes and explained 33.757% of variance in the data with Eigen value of 2.701. The attributes associated with this factor includes 'Environmental protection is crucial to me while making purchases of appliances', 'Energy-efficient appliances are vital for reducing air pollution', and 'Energy efficient Appliances are essential in saving natural resources that would be utilised to produce energy, such as coal and water'.

Factor 2 considers four attributes and explained 13.265% of variance in the data with Eigen value of 1.061. The attributes associated with this factor includes 'If I may pick between energy-efficient and traditional appliances, I favour energy-efficient', 'Reducing my household's energy consumption would help protect the environment', 'It would save me money to reduce my household's energy consumption' and 'During the recent past, I have taken steps to reduce my household's energy use'.

Factor 3 considers one attributes and explained 12.512% of variance in the data with Eigen value of 1.001. The attribute associated with this factor includes 'Reducing my household's energy consumption would be inconvenient.'

H_{O10(c):} There is no significant relationship between Consumers' Readiness and green purchase behaviour.

Table 4.5.5.17: Consumers' Readiness and Green Purchase Behaviour

	Consumers' Readiness	
Green Purchase Behaviour	Pearson's Correlation	0.130
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Consumers' Readiness and Green Purchase Behaviour towards Green Household Appliances. The value of Correlation coefficient (r) is 0.130 which specifies that there is a negligible degree of positive correlation between Consumers' Readiness and Green Purchase Behaviour towards Green Household Appliances. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. Based on the statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that there is negligible degree of positive correlation Consumers' Readiness and Green Purchase Behaviour towards Green Household Appliances.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.5.18: Model Summary for Consumers' Readiness and GPB

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.178[a]	.032	.029	.659320

Above table shows coefficient of determination (R Square) 0.032, which means 3.2% variation in dependent variable (Green Purchase Behaviour) is explained by independent variable (Consumers' Readiness).

Table 4.5.5.19: ANOVA for Consumers' Readiness and GPB

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.649	3	4.883	8.992	.000[b]
	Residual	568.032	1047	0.543		
	Total	582.681	1050			

Dependent Variable: Green Purchase behaviour

Independent Variable: Consumers' Readiness

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be determined that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.5.20: Coefficients for Consumers' Readiness and GPB

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.107	.120		25.893	.000
I buy Energy Efficient Appliances	-.030	.029	-.036	-1.032	.302
I am ready to shift from conventional appliances to Energy Efficient Appliances	.155	.030	.193	5.211	.000
I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances	-.002	.029	-.002	-.068	.946

Among the three Green Purchase Behaviours studied, the regression coefficients (Beta) of three behaviour (i.e., I buy Energy Efficient Appliances; I am ready to shift from conventional appliances to Energy Efficient Appliances; I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances) is found to be -0.030, 0.155, and -0.002, and respectively.

The regression coefficients (Beta) of these green purchase behaviours for 'I am ready to shift from conventional appliances to Energy Efficient Appliances' is significant as P-value (0.00) is less than significance level .05. Thus, we conclude that it strong predictor. Other than that, the regression coefficients (Beta) of 'I buy Energy Efficient Appliances' and 'I shift to

improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances' green purchase behaviours are non-significant.

Table 4.5.5.21: KMO and Bartlett's Test for Consumers' Readiness and GPB

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.640
Bartlett's Test of Sphericity	Approx. Chi-Square	2120.256
	df	21
	Sig.	.000

The results mentioned above demonstrate that the sample adequacy KMO score is 0.640. Bartlett's Test of Sphericity significant P-Value is 0.000, which is less than 0.05 and indicates that the data is appropriate for factor analysis.

Table 4.5.5.22: KMO Range Communalities for Consumers' Readiness and GPB

Model	Initial	Extraction
I am a strongly believe and advocate of Energy Efficient / Green Household Appliances.	1.000	.557
I do believe in using Green Products but am not a strong promoter of Energy Efficient Appliances.	1.000	.788
I am a modest believer of Green Products but not thought much on the issue.	1.000	.573
I have not much to do with green initiatives. Government should take measures.	1.000	.863
I am the least concerned about environmentalism. The government and industry should promote and address these challenges.	1.000	.866
If my disposable income grew, I would definitely go with Energy Efficient / Green Household Appliances.	1.000	.753
According to me, the most significant barrier to purchasing Energy Efficient / Green Household Appliances is the price.	1.000	.748

Extraction Method: Principal Component Analysis.

Generally, communalities with a range of less than 0.50 are ignored since they add nothing to the factor analysis. However, in this instance, every range value is greater than 0.50; hence, every value was taken into account when doing the factor analysis.

Table 4.5.5.23: Total Variance Explained for Consumers' Readiness and GPB

CT	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	A	B	C	A	B	C	A	B	C
1	2.554	36.490	36.490	2.554	36.490	36.490	2.101	30.019	30.019
2	1.506	21.519	58.009	1.506	21.519	58.009	1.526	21.801	51.821
3	1.087	15.532	73.541	1.087	15.532	73.541	1.520	21.720	73.541
4	.661	9.446	82.987						
5	.520	7.423	90.409						
6	.481	6.868	97.277						
7	.191	2.723	100.000						

Extraction Method: Principal Component Analysis.
A= Total, B= % of Variance, C= Cumulative %

There are three components which have the Initial Eigen Values over 1 and it explains for about 73.541 percent of variation.

Graph 4.4: Scree Plot for Consumers' Readiness and GPB
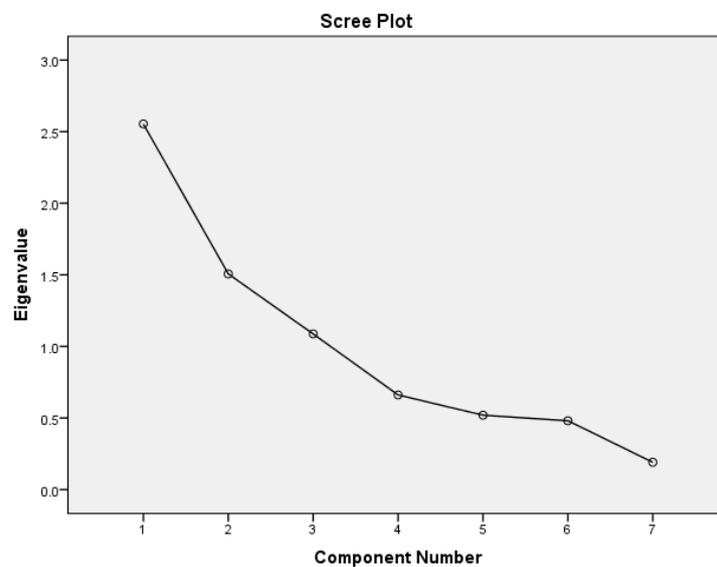
Table 4.5.5.24: Rotated Component Matrix^a for Consumers' Readiness and GPB

Model	Component		
	1	2	3
I am a strongly believe and advocate of Energy Efficient / Green Household Appliances.		.678	
I do believe in using Green Products but am not a strong promoter of Energy Efficient Appliances.		.885	
I am a modest believer of Green Products but not thought much on the issue.	.557		
I have not much to do with green initiatives. Government should take measures.	.920		
I am the least concerned about environmentalism. The government and industry should promote and address these challenges.	.921		
If my disposable income grew, I would definitely go with Energy Efficient / Green Household Appliances.			.867
According to me, the most significant barrier to purchasing Energy Efficient / Green Household Appliances is the price.			.861

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

The above table shows Principal Component Analysis. Varimax with Kaiser Normalization Rotated method is applied in factors rotation. The analysis identified two components. Items having factor loading more than 0.40 is considered.

Factor 1 considers three attributes and explained 36.490% of variance in the data with Eigen value of 2.554. The attributes associated with this factor includes 'I am a modest believer of Green Products but not thought much on the issue.', 'I have not much to do with green initiatives. Government should take measures.' and 'I am the least concerned about environmentalism. The government and industry should promote and address these challenges.'

Factor 2 considers two attributes and explained 21.519% of variance in the data with Eigen value of 1.506. The attributes associated with this factor includes 'I am a strongly believe and advocate of Energy Efficient / Green Household Appliances' and 'I do believe in using Green Products but am not a strong promoter of Energy Efficient Appliances.'

Factor 3 considers two attributes and explained 15.532% of variance in the data with Eigen value of 1.087. The attributes associated with this factor includes 'If my disposable income

grew, I would definitely go with Energy Efficient / Green Household Appliances' and 'According to me, the most significant barrier to purchasing Energy Efficient / Green Household Appliances is the price.'

H$_{O10(d)}$: **There is no significant relationship between Consumers' Subjective Social Norms and Green Purchase Behaviour.**

Table 4.5.5.25: Subjective Social Norms Green Purchase Behaviour

	Subjective Social Norms	
Green Purchase Behaviour	Pearson's Correlation	0.140
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Subjective Social Norms and Green Purchase Behaviour of Green Household Appliances. The value of Correlation coefficient (r) is 0.140 which indicates that there is a negligible degree of positive correlation between Subjective Social Norms and Green Purchase Behaviour of Green Household Appliances. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. Based on the statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that there is negligible degree of positive correlation Subjective Social Norms and Green Purchase Behaviour of Green Household Appliances.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.5.26: Model Summary for Subjective Social Norms and GPB

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.148[a]	.022	.019	.89702

Above table shows coefficient of determination (R Square) 0.022, which means 2.2% variation in dependent variable (Subjective Social Norms) is explained by independent variable (Green Purchase Behaviour).

Table 4.5.5.27: ANOVA for Subjective Social Norms and GPB

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.876	3	6.292	7.819	.000[b]
	Residual	841.653	1047	.805		
	Total	860.528	1050			

Dependent Variable: Green Purchase behaviour

Independent Variable: Subjective Social Norms

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be determined that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.5.28: Coefficients for Subjective Social Norms and GPB

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.694	.163		16.501	.000
I buy Energy Efficient Appliances	.108	.039	.098	2.773	.006
I am ready to shift from conventional appliances to Energy Efficient Appliances	.024	.040	.022	.603	.547
I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances	.069	.039	.063	1.764	.078

Among the three Green Purchase Behaviours studied, the regression coefficients (Beta) of three behaviour (i.e., I buy Energy Efficient Appliances; I am ready to shift from conventional appliances to Energy Efficient Appliances; I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances) is found to be 0.006, 0.547, and 0.078, and respectively. The regression coefficients (Beta) of these green purchase behaviours are non-significant.

Table 4.5.5.29: KMO and Bartlett's Test for Subjective Social Norms and GPB

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.559
Bartlett's Test of Sphericity	Approx. Chi-Square	1671.919
	df	6
	Sig.	.000

The results mentioned above demonstrate that the sample adequacy KMO score is 0.559. Bartlett's Test of Sphericity significant P-Value is 0.000, which is less than 0.05 and indicates that the data is appropriate for factor analysis.

Table 4.5.5.30: KMO Range Communalities for Subjective Social Norms and GPB

Model	Initial	Extraction
The majority of the individuals that are significant to me believe that I should get Energy Efficient / Green household appliances.	1.000	.907
The majority of those who are significant to me, expect me to purchase energy-efficient / green household appliances.	1.000	.905
Most of the people who are important to me would support my purchase of Energy Efficient / Green Household Appliances next time.	1.000	.793
People whose opinions I value would choose energy-efficient or green household appliances instead of conventional ones.	1.000	.801
Extraction Method: Principal Component Analysis.		

Generally, communalities with a range of less than 0.50 are ignored since they add nothing to the factor analysis. However, in this instance, every range value is greater than 0.50; hence, every value was taken into account when doing the factor analysis.

Table 4.5.5.31: Total Variance Explained for Subjective Social Norms and GPB

CT	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	A	B	C	A	B	C	A	B	C
1	2.191	54.773	54.773	2.191	54.773	54.773	1.808	45.206	45.206
2	1.215	30.363	85.136	1.215	30.363	85.136	1.597	39.930	85.136
3	.408	10.203	95.339						
4	.186	4.661	100.000						

Extraction Method: Principal Component Analysis.
A= Total, B= % of Variance, C= Cumulative %

There are two components having the Initial Eigen Values over 1 and it explains for about 85.136 percent of variation.

Graph 4.5: Scree Plot for Subjective Social Norms and GPB
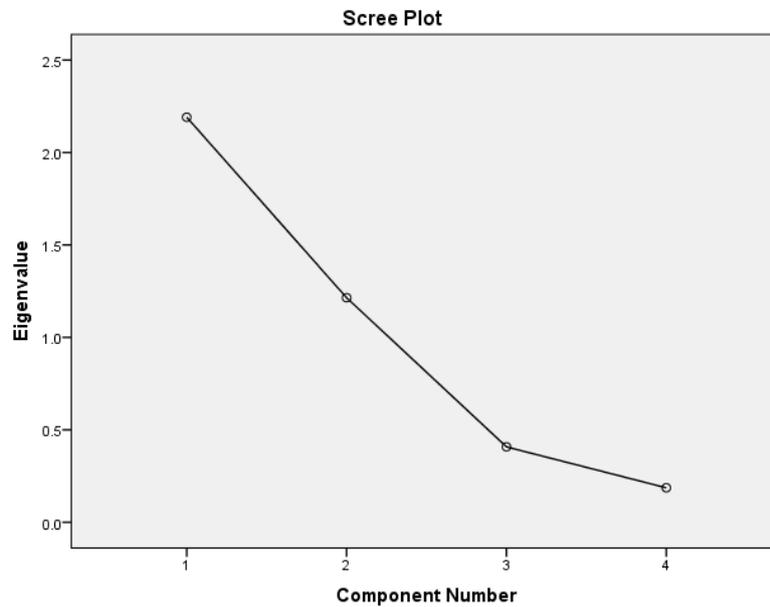
Table 4.5.5.32: Rotated Component Matrix^a for Subjective Social Norms and GPB

Model	Component	
	1	2
Most of the people who are important to me think that I should buy Energy Efficient / Green Household Appliances.	.945	
Most of the people who are important to me expect me to buy Energy Efficient / Green Household Appliances.	.939	
Most of the people who are important to me would support me buying Energy Efficient / Green Household Appliances next time		.878
People whose opinion I respect would buy Energy Efficient / Green Household Appliances instead of conventional ones		.889

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

The above table shows Principal Component Analysis. Varimax with Kaiser Normalization Rotated method is used in factors rotation. The analysis identified two components. Items having factor loading more than 0.40 is considered.

Factor 1 considers two attributes and explained 54.773% of variance in the data with Eigen value of 2.191. The attributes associated with this factor includes "Most of the people who are

important to me think that I should buy Energy Efficient / Green Household Appliances", and "Most of the people who are important to me expect me to buy Energy Efficient / Green Household Appliances.".

Factor 2 considers two attributes and explained 30.363% of variance in the data with Eigen value of 1.215. The attributes associated with this factor includes "Most of the people who are important to me would support me buying Energy Efficient / Green Household Appliances next time", "and "People whose opinion I respect would buy Energy Efficient / Green Household Appliances instead of conventional ones".

H$_{O10(e):}$ There is no significant relationship between Moral Norms and Green Purchase Behaviour.

Table 4.5.5.33: Moral Norms and Green Purchase Behaviour

	Moral Norms	
Green Purchase Behaviour	Pearson's Correlation	0.168
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Moral Norms and Green Purchase Behaviour of Green Household Appliances. The value of Correlation coefficient (r) is 0.168 which shows that there is a very low degree of positive correlation between Moral Norms and Green Purchase Behaviour of Green Household Appliances. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. On the basis of statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that there is a very low degree of positive correlation Moral Norms and Green Purchase Behaviour of Green Household Appliances.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.5.34: Model Summary for Moral Norms and GPB

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.207[a]	0.043	.040	.9132887

Above table shows coefficient of determination (R Square) 0.043, which means 4.3% variation in dependent variable (Green Purchase Behaviour) is explained by independent variable (Moral Norms).

Table 4.5.5.35: ANOVA for Moral Norms and GPB

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	39.163	3	13.504	15.651	.000[b]
	Residual	872.465	1047	.834		
	Total	911.628	1050			

Dependent Variable: Green Purchase behaviour
Independent Variable: Moral Norms

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be determined that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.5.36: Coefficients for Moral Norms and GPB

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.569	.166		15.455	.000
I buy Energy Efficient Appliances	.170	.040	.149	4.288	.000
I am ready to shift from conventional appliances to Energy Efficient Appliances	.129	.041	.116	3.140	.002
I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances	-.060	.040	-.053	-1.513	.131

Among the three Green Purchase Behaviours studied, the regression coefficients (Beta) of three behaviour (i.e., I buy Energy Efficient Appliances; I am ready to shift from conventional appliances to Energy Efficient Appliances; I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances) is found to be 0.170, 0.129, and -0.060, and respectively.

The regression coefficients (Beta) of these green purchase behaviours for 'I buy Energy Efficient Appliances' is significant as P-value (0.00) is less than significance level .05. Thus, we conclude that it strong predictor Moral Norm._ Other than that, the regression coefficients (Beta) of 'I am ready to shift from conventional appliances to Energy Efficient Appliances' and 'I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances' green purchase behaviours are non-significant.

Table: 4.5.5.37: KMO and Bartlett's Test for Moral Norms and GPB

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.721
Bartlett's Test of Sphericity	Approx. Chi-Square	2825.471
	df	15
	Sig.	.000

The results mentioned above demonstrate that the sample adequacy KMO score is 0.721. Bartlett's Test of Sphericity significant P-Value is 0.000, which is less than 0.05 and indicates that the data is appropriate for factor analysis.

Table 4.5.5.38: KMO Range Communalities for Moral Norms and GPB

Model	Initial	Extraction
I personally feel obligated to buy energy-efficient / green household appliances for the sake of the environment.	1.000	.501
I feel bad when I purchase electrical items that harm the environment.	1.000	.796
Purchasing electrical appliances that harm the environment is morally unacceptable for me.	1.000	.840
Purchasing electrical appliances that harm the environment would violate my ethics.	1.000	.769
People like me have a duty to help to environmental conservation by avoiding electrical devices that harm the environment.	1.000	.715
Everyone should help promote green electrical appliance production by purchasing only energy-efficient / green household appliances.	1.000	.689

Extraction Method: Principal Component Analysis.

Generally, communalities with a range of less than 0.50 are ignored since they add nothing to the factor analysis. However, in this instance, every range value is greater than 0.50; hence, every value was taken into account when doing the factor analysis.

Table 4.5.5.39: Total Variance Explained for Moral Norms and GPB

CT	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	A	B	C	A	B	C	A	B	C
1	2.956	49.259	49.259	2.956	49.259	49.259	2.897	48.276	48.276
2	1.355	22.575	71.834	1.355	22.575	71.834	1.413	23.558	71.834
3	.811	13.509	85.343						
4	.440	7.331	92.674						
5	.255	4.252	96.926						
6	.184	3.074	100.000						

Extraction Method: Principal Component Analysis.
A= Total, B= % of Variance, C= Cumulative %

There are two components which have the Initial Eigen Values over 1 and it explains for about 71.834 percent of variation.

Graph 4.6: Scree Plot for Moral Norms and GPB
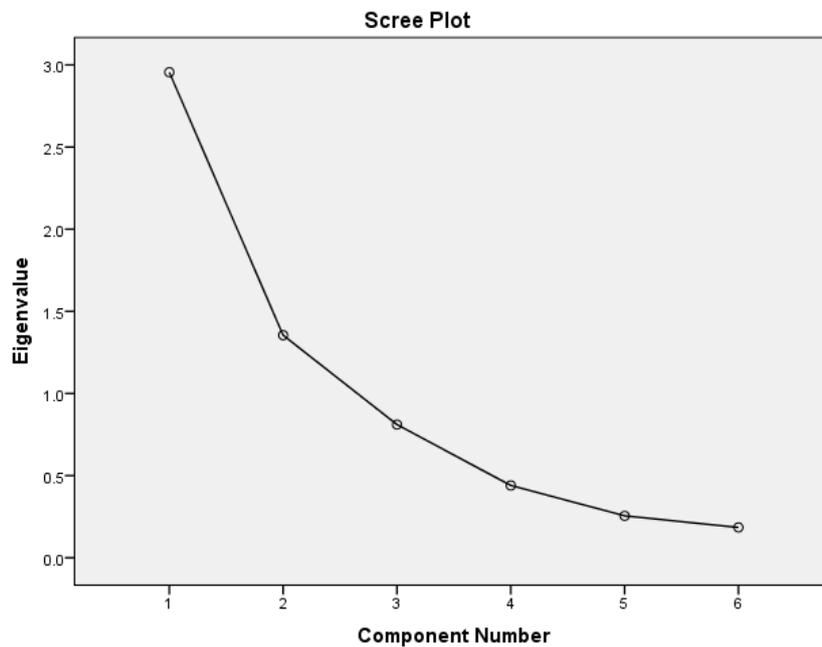
Table 4.5.5.40: Rotated Component Matrix^a for Moral Norms and GPB

Model	Component	
	1	2
I personally feel obligated to buy energy-efficient / green household appliances for the sake of the environment.	.708	
I feel bad when I purchase electrical items that harm the environment.	.890	
Purchasing electrical appliances that harm the environment is morally unacceptable for me.	.916	
Purchasing electrical appliances that harm the environment would violate my ethics.	.867	
People like me have a duty to help to environmental conservation by avoiding electrical devices that harm the environment.		.838
Everyone should help promote green electrical appliance production by purchasing only energy-efficient / green household appliances.		.830

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

The above table shows Principal Component Analysis. Varimax with Kaiser Normalization Rotated method is used in factors rotation. The analysis identified two components. Items having factor loading more than 0.40 is considered.

Factor 1 considers four attributes and explained 49.259% of variance in the data with Eigen value of 2.1956. The attributes associated with this factor includes "I feel personally obliged to buy Energy Efficient / Green Household Appliances for the sake of the environment", "I feel guilty if I buy electrical appliances that damage the environment", "Buying electrical appliances that damage the environment would be morally wrong for me" and "Buying electrical appliances that affect the environment would go against my principles."

Factor 2 considers two attributes and explained 22.575% of variance in the data with Eigen value of 1.355. The attributes associated with this factor includes "People like me have a responsibility to contribute to environmental preservation by avoiding electrical appliances that damage the environment" and "Everyone should make a contribution to promoting green electrical appliance production by buying only Energy Efficient / Green Household Appliances."

H_{O10(f)}: There is no significant relationship between Consumers' Environmental Self-Identity and Green Purchase Behaviour.

Table 4.5.5.41: Environmental Self-Identity and GPB

	Environmental Self-Identity	
Green Purchase Behaviour	Pearson's Correlation	0.278
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Environmental Self-Identity and Green Purchase Behaviour of Green Household Appliances. The value of Correlation coefficient (r) is 0.278 which specifies that there is a very low degree of positive correlation between Environmental Self-Identity and Green Purchase Behaviour of Green Household Appliances. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. On the basis of statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that there is a very low degree of positive correlation Environmental Self-Identity and Green Purchase Behaviour of Green Household Appliances.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.5.42: Model Summary for Environmental Self-Identity and GPB

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.309[a]	.095	.093	.4893

Above table shows coefficient of determination (R Square) 0.095, which means 9.5% variation in dependent variable (Green Purchase Behaviour) is explained by independent variable (Environmental Self-Identity).

Table 4.5.5.43: ANOVA for Environmental Self-Identity and GPB

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	26.490	3	8.803	36.766	.000[b]
1	Residual	250.447	1047	.239		
	Total	276.856	1050			

Dependent Variable: Green Purchase behaviour

Independent Variable: Environmental Self-Identity

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be concluded that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.5.44: Coefficients for Environmental Self-Identity and GPB

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.218	.089		36.131	.000
I buy Energy Efficient Appliances	.142	.021	.226	6.677	.000
I am ready to shift from conventional appliances to Energy Efficient Appliances	-.015	.022	-.025	-.692	-489
I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances	.101	.021	.160	4.695	.000

Among the three Green Purchase Behaviours studied, the regression coefficients (Beta) of three behaviour (i.e., I buy Energy Efficient Appliances; I am ready to shift from conventional appliances to Energy Efficient Appliances; I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances) is found to be 0.142, -0.015, and 0.101, and respectively.

The regression coefficients (Beta) of these green purchase behaviours for 'I buy Energy Efficient Appliances' and 'I shift to improved versions/brands of electrical appliances that are more

energy efficient than my prevailing Household Energy Efficient Appliances' are significant as P-value (0.00) is less than significance level .05. Thus, we conclude that it strong predictor of Consumers' Environmental Self-Identity.

Other than that, the regression coefficients (Beta) of 'I am ready to shift from conventional appliances to Energy Efficient Appliances' is non-significant.

Table 4.5.5.45: KMO and Bartlett's Test for Environmental Self-Identity and GPB

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.572
Bartlett's Test of Sphericity	Approx. Chi-Square	658.781
	df	10
	Sig.	.000

The results mentioned above demonstrate that the sample adequacy KMO score is 0.572. Bartlett's Test of Sphericity significant P-Value is 0.000, which is less than 0.05 and indicates that the data is appropriate for factor analysis.

Table 4.5.5.46: KMO Range Communalities for Environmental Self-Identity and GPB

Model	Initial	Extraction
I think of myself as someone who cares about the environment.	1.000	.671
I consider myself to be a customer that cares about the environment.	1.000	.589
I want my loved ones to think of me as an environmentally conscious person.	1.000	.666
If I weren't thought of as leading an environmentally conscious lifestyle, I would be ashamed.	1.000	.712
Investing in green or energy-efficient household appliances gives me the impression that I am a consumer who cares about the environment.	1.000	.447

Extraction Method: Principal Component Analysis.

Generally, communalities with a range of less than 0.50 are ignored since they add nothing to the factor analysis. However, in this instance, the majority of the range values are greater than 0.50; hence, all values were taken into account when doing the factor analysis. The only response that will not be taken into account is "Buying Energy Efficient / Green Household Appliances makes me feel that I am an environmentally friendly consumer" (.447).

Table 4.5.5.47: Total Variance Explained for Environmental Self-Identity and GPB

CT	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	A	B	C	A	B	C	A	B	C
1	1.920	38.394	38.394	1.920	38.394	38.394	1.748	34.951	34.951
2	1.165	23.303	61.697	1.165	23.303	61.697	1.337	26.747	61.697
3	.818	16.366	78.063						
4	.647	12.933	90.996						
5	.450	9.004	100.000						

Extraction Method: Principal Component Analysis.
A= Total, B= % of Variance, C= Cumulative %

There are two components having the Initial Eigen Values over 1 and it explains for about 61.697 percent of variation.

Graph 4.7: Scree Plot for Environmental Self-Identity and GPB
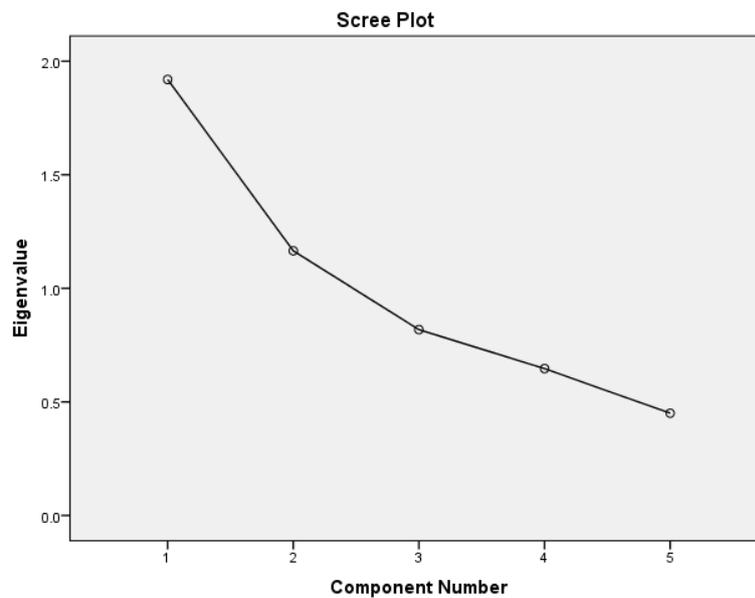
Table 4.5.5.48: Rotated Component Matrix[a] for Environmental Self-Identity and GPB

Model	Component	
	1	2
I think of myself as someone who cares about the environment.	.819	
I consider myself to be a customer that cares about the environment.	.767	
I want my loved ones to think of me as an environmentally conscious person.		.761
If I weren't thought of as leading an environmentally conscious lifestyle, I would be ashamed.		.840
Investing in green or energy-efficient household appliances gives me the impression that I am a consumer who cares about the environment.	.629	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

The above table shows Principal Component Analysis. Varimax with Kaiser Normalization Rotated method is used in factors rotation. The analysis identified two components. Items having factor loading more than 0.40 is considered.

Factor 1 considers three attributes and explained 38.394% of variance in the data with Eigen value of 1.920. The attributes associated with this factor includes "I think of myself as someone who is concerned about environmental issues", "I see myself as being an environmentally friendly consumer", and "Buying Energy Efficient / Green Household Appliances makes me feel that I am an environmentally friendly consumer."

Factor 2 considers two attributes and explained 23.303% of variance in the data with Eigen value of 1.165. The attributes associated with this factor includes "I would want my family and friends to think of me as someone who is concerned about the environment" and "I would be embarrassed not to be seen as having an environmentally friendly lifestyle."

$H_{o10(g)}$: There is no significant relationship between Warm Glow and Green Purchase Behaviour.

Table 4.5.5.49: Warm Glow and Green Purchase Behaviour

	Warm Glow	
Green Purchase Behaviour	Pearson's Correlation	0.178
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Warm Glow and Green Purchase Behaviour of Green Household Appliances. The value of Correlation coefficient (r) is 0.178 which shows that there is a negligible degree of positive correlation between Warm Glow and Green Purchase Behaviour of Green Household Appliances. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. On the basis of statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that there is a negligible degree of positive correlation Warm Glow and Green Purchase Behaviour of Green Household Appliances.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.5.50: Model Summary for Warm Glow and GPB

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.195[a]	.038	0.35	.393007

Above table shows coefficient of determination (R Square) 0.038, which means 3.8% variation in dependent variable (Green Purchase Behaviour) is explained by independent variable (Warm Glow).

Table 4.5.5.51: ANOVA for Warm Glow and GPB

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.370	3	2.123	13.747	.000[b]
	Residual	161.560	1047	.154		
	Total	167.930	1050			

Dependent Variable: Green Purchase behaviour

Independent Variable: Warm Glow

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be concluded that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.5.52: Coefficients for Warm Glow and GPB

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.941	.072		55.103	.000
I buy Energy Efficient Appliances	.065	.017	.132	3.782	.000
I am ready to shift from conventional appliances to Energy Efficient Appliances	-.003	.018	-.006	-.169	.886
I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances	.052	.017	.107	3.027	.003

Among the three Green Purchase Behaviours studied, the regression coefficients (Beta) of three behaviour (i.e., I buy Energy Efficient Appliances; I am ready to shift from conventional appliances to Energy Efficient Appliances; I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances) is found to be 0.065, -0.03, and 0.052, and respectively.

The regression coefficients (Beta) of the green purchase behaviours for 'I buy Energy Efficient Appliances' is significant as P-value (0.00) is less than significance level .05. Thus, we conclude that it strong predictor. Other than that, the regression coefficients (Beta) of 'I am ready to shift from conventional appliances to Energy Efficient Appliances' and 'I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances' green purchase behaviours are non-significant.

Table 4.5.5.53: KMO and Bartlett's Test for Warm Glow and GPB

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.791
Bartlett's Test of Sphericity	Approx. Chi-Square	1285.078
	df	21
	Sig.	.000

According to the aforesaid findings, the sample adequacy KMO score is 0.791. Bartlett's Test of Sphericity significant P-Value is 0.000, which is less than 0.05 and indicates that the data is appropriate for factor analysis.

Table 4.5.5.54: KMO Range Communalities for Warm Glow and GPB

Model	Initial	Extraction
I like to help safeguard the environment by acquiring energy-efficient / green household appliances.	1.000	.584
I admire people who voluntarily buy energy-efficient or green household appliances.	1.000	.480
I have the sense of commitment to the wellness of humanity when purchasing Energy Efficient / Green Household Appliances.	1.000	.649
Purchasing energy-efficient / green household appliances makes me happy since they assist to safeguard the environment.	1.000	.571
Purchasing Energy Efficient / Green Household Appliances makes me feel good because it allows me to reduce my household energy consumption.	1.000	.899
Buying Energy Efficient / Green Household Appliances helps me feel good since they help me minimise my electricity cost.	1.000	.543
When I buy green things, such as energy-efficient appliances, I feel good about myself.	1.000	.538

Extraction Method: Principal Component Analysis.

Generally speaking, communalities with a range of less than 0.50 are ignored since they add nothing to the factor analysis. However, in this instance, every range value aside from "I admire people who voluntarily buy energy-efficient or green household appliances" is more than 0.50; as a result, every value was taken into account when factor analysis is calculated.

Table 4.5.5.55: Total Variance Explained for Warm Glow and GPB

CT	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.762	39.460	39.460	2.762	39.460	39.460
2	.992	14.171	53.631			
3	.792	11.321	64.952			
4	.718	10.251	75.203			
5	.690	9.860	85.063			
6	.557	7.961	93.024			
7	.488	6.976	100.000			

Extraction Method: Principal Component Analysis.

There is only component which has the Initial Eigen Values over 1 and it explains for about 39.460 percent of variation.

Graph 4.8: Scree Plot for Warm Glow and GPB
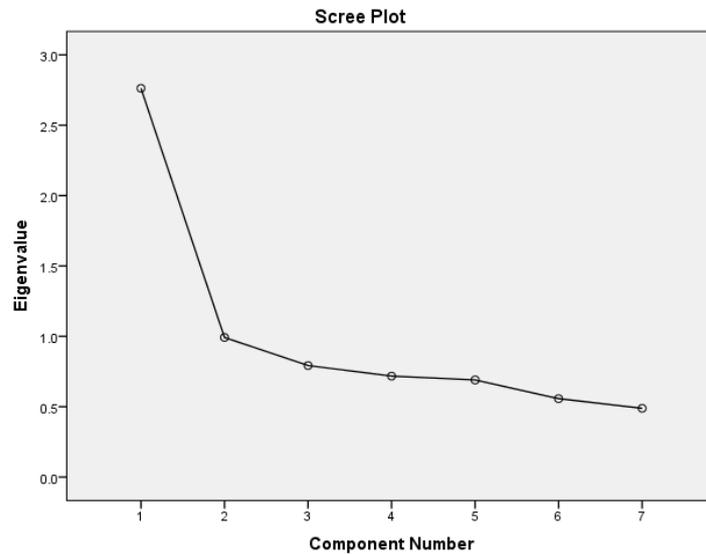
As only one component was extracted under Warn Glow, Rotated Component Matrix cannot be obtained.

$H_{O10(h):}$ There is no significant relationship between consumers' Perceived Barriers and Green Purchase Behaviour.

Table 4.5.5.56: Perceived Barriers and GPB

		Perceived Barriers
Green Purchase Behaviour	Pearson's Correlation	-0.010
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Perceived Barriers and Green Purchase Behaviour of Green Household Appliances. The value of Correlation coefficient (r) is -0.010 which shows that there is a negligible degree of negative correlation between Perceived Barriers and Green Purchase Behaviour of Green Household Appliances. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. On the basis of statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that there is a negligible degree of

negative correlation Perceived Barriers and Green Purchase Behaviour of Green Household Appliances.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.5.57: Model Summary for Perceived Barriers and GPB

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.114[a]	.013	.010	.6528

Above table shows coefficient of determination (R Square) 0.013, which means 1.3% variation in dependent variable (Green Purchase Behaviour) is explained by independent variable (Perceived Barriers).

Table 4.5.5.58: ANOVA for Perceived Barriers and GPB

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.839	3	1.946	4.567	.000[b]
	Residual	445.786	1047	.426		
	Total	451.625	1050			

Dependent Variable: Green Purchase behaviour
Independent Variable: Perceived Barriers

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be said that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.5.59: Coefficients for Perceived Barriers and GPB

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.551	.119		29.885	.000
I buy Energy Efficient Appliances	-.062	.028	-.078	-2.193	.028
I am ready to shift from conventional appliances to Energy Efficient Appliances	.098	.029	.125	3.336	.001

I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances	-.054	.029	-.068	-1.899	.058

Among the three Green Purchase Behaviours studied, the regression coefficients (Beta) of three behaviour (i.e., I buy Energy Efficient Appliances; I am ready to shift from conventional appliances to Energy Efficient Appliances; I shift to improved versions/brands of electrical appliances that are more energy efficient than my prevailing Household Energy Efficient Appliances) is found to be -0.062, 0.98, and -0.054, and respectively. The regression coefficients (Beta) of these green purchase behaviours are non-significant.

Table 4.5.5.60: KMO and Bartlett's Test for Perceived Barriers and GPB

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.767
Bartlett's Test of Sphericity	Approx. Chi-Square	4868.207
	df	45
	Sig.	.000

The results mentioned above demonstrate that the sample adequacy KMO score is 0.767. Bartlett's Test of Sphericity significant P-Value is 0.000, which is less than 0.05 and indicates that the data is appropriate for factor analysis.

Table 4.5.5.61: KMO Range Communalities for Perceived Barriers and GPB

Model	Initial	Extraction
I cannot afford to pay more to buy Energy Efficient / Green Household Appliances.	1.000	.707
While shopping, I can't easily distinguish between energy efficient and conventional electrical appliances	1.000	.789
I need a lot of extra time to purchase Energy Efficient Appliances	1.000	.746
I am not confident about the credibility of energy rating labels	1.000	.716
Lack of Information/Awareness about green products is responsible for its low demand.	1.000	.741
Lack of Availability / Unease of Access of green products is responsible for its low demand.	1.000	.675
Cost savings from green products are lower than expected.	1.000	.641
I fear of being cheated in the name of green products.	1.000	.676
Unwillingness to change is responsible for the low demand of green products.	1.000	.645
Lack of proper promotion of green products is responsible for its low demand.	1.000	.745

Extraction Method: Principal Component Analysis.

Generally, communalities with a range of less than 0.50 are ignored since they add nothing to the factor analysis. However, in this instance, every range value is greater than 0.50; hence, every value was taken into account when doing the factor analysis.

Table 4.5.5.62: Total Variance Explained for Perceived Barriers and GPB

CT	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	A	B	C	A	B	C	A	B	C
1	3.947	39.474	39.474	3.947	39.474	39.474	3.674	36.742	36.742
2	2.095	20.946	60.420	2.095	20.946	60.420	1.771	17.713	54.455
3	1.040	10.400	70.821	1.040	10.400	70.821	1.637	16.366	70.821
4	.772	7.724	78.544						
5	.544	5.439	83.983						
6	.444	4.439	88.422						
7	.409	4.085	92.507						
8	.315	3.145	95.652						
9	.253	2.531	98.183						
10	.182	1.817	100.000						

Extraction Method: Principal Component Analysis.
A= Total, B= % of Variance, C= Cumulative %

There are three components which have the Initial Eigen Values over 1 and it explains for about 70.821 percent of variation.

Graph 4.9: Scree Plot for Perceived Barriers and GPB
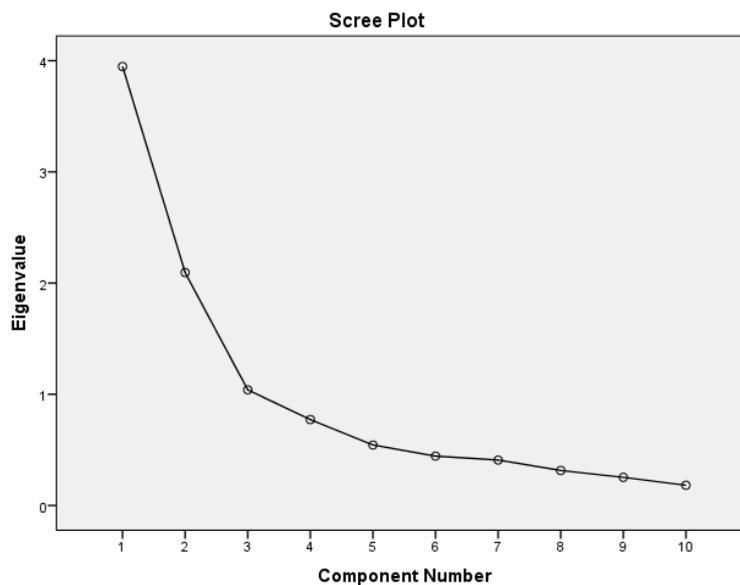
Table 4.5.5.63: Rotated Component Matrix^a for Perceived Barriers and GPB

Model	Component		
	1	2	3
I cannot afford to pay more to buy Energy Efficient / Green Household Appliances.	.749		
While shopping, I can't easily distinguish between energy efficient and conventional electrical appliances	.826		
I need a lot of extra time to purchase Energy Efficient Appliances	.861		
I am not confident about the credibility of energy rating labels	.846		
Lack of Information/Awareness about green products is responsible for its low demand.			.810
Lack of Availability / Unease of Access of green products is responsible for its low demand.			.780
Cost savings from green products are lower than expected.	.654		
I fear of being cheated in the name of green products.	.726		
Unwillingness to change is responsible for the low demand of green products.		.760	
Lack of proper promotion of green products is responsible for its low demand.		.817	
Extraction Method: Principal Component Analysis.			
Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 7 iterations.			

The above table shows Principal Component Analysis. Varimax with Kaiser Normalization Rotated method is used in factors rotation. The analysis identified three components. Items having factor loading more than 0.40 is considered.

Factor 1 considers six attributes and explained 39.474% of variance in the data with Eigen value of 3.947. The attributes associated with this factor includes "I cannot afford to pay more to buy Energy Efficient / Green Household Appliances", "While shopping, I can't easily distinguish between energy efficient and conventional electrical appliances", "I need a lot of extra time to purchase Energy Efficient Appliances", "I am not confident about the credibility of energy rating labels", "Cost savings from green products are lower than expected" and "I fear of being cheated in the name of green products".

Factor 2 considers two attributes and explained 20.946% of variance in the data with Eigen value of 2.094. The attributes associated with this factor includes "Unwillingness to change is

responsible for the low demand of green products" and "Lack of proper promotion of green products is responsible for its low demand."

Factor 3 considers two attributes and explained 10.400% of variance in the data with Eigen value of 1.040. The attributes associated with this factor includes "Lack of Information/Awareness about green products is responsible for its low demand" and "Lack of Availability / Unease of Access of green products is responsible for its low demand."

4.5.6 GREEN PRODUCT/ BRAND AWARENESS AND GREEN BRAND IMAGE AND PERCEIVED QUALITY AND PURCHASE INTENTION (Objective 6)

The researcher aims to determine the impact of consumers' level of green product/brand awareness and green product/brand image on the perceived quality and purchase intention towards selected green household appliances.

Green Awareness refers to the extent to which consumers are familiar with green products and brands, including their benefits and features. Brand Image is how consumers perceive a brand in terms of its environmental efforts and overall reputation for sustainability. Perceived Quality is the consumer's judgment about a product's overall excellence or superiority. Purchase Intention is the likelihood that a consumer will buy a product.

4.5.6.1 Green Brand Awareness and Purchase Intention

H_{O6}: There is no significant relationship between Green products /brand awareness and their purchase intention.

Table 4.5.6.1.1: Green Product/ Brand Awareness and Purchase Intention

		Purchase Intention
Green Purchase Behaviour	Pearson's Correlation	0.424
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Green Product/ Brand Awareness and Purchase Intention. The value of Correlation coefficient (r) is 0.424 which shows that there is

a low degree of positive correlation between Green Product/ Brand Awareness and Purchase Intention. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. On the basis of statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that there is a low degree of positive correlation between Green Product/ Brand Awareness and Purchase Intention.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.6.1.2: Model Summary for Green Product/ Brand Awareness and Purchase Intention

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.434[a]	0.189	.186	.5197

Above table shows coefficient of determination (R Square) 0.189, which means 18.9% variation in dependent variable (Green Product/ Brand Awareness) is explained by independent variable (Purchase Intention).

Table 4.5.6.1.3: ANOVA for Green Product/ Brand Awareness and Purchase Intention

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	65.668	4	16.417	60.791	.000[b]
1	Residual	282.207	1046	.426		
	Total	347.875	1050			

Dependent Variable: Green Product/ Brand Awareness
Independent Variable: Purchase Intention

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be concluded that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.6.1.4: Coefficients for Green Product/ Brand Awareness and Purchase Intention

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.256	.128		17.594	.000
Because of its commitment to the environment, using green items makes sense instead of other products.	.193	.032	.204	6.035	.000
I would rather use products that have environmental obligations, even if they have the same features as another product.	.026	.029	.031	.891	.373
Even if there is a better product than green item, I would rather use the greener one.	.106	.027	.137	3.862	.000
Using green items makes sense if other products do not pose a threat to the environment.	.131	.028	.175	-1.899	.000

From among the four Purchase Intention studied, the regression coefficients (Beta) of three behaviour (i.e., 'Because of its commitment to the environment, using green items makes sense instead of other products', 'Even if there is a better product than green items, I would rather use the greed one' and 'Using green items makes sense if other products do not pose a threat to the environment'.) are found to be .193, .106 and .131 respectively. Also, the regression coefficients (Beta) of these purchase intention is significant as P-value (0.00) is less than significance level .05. Thus, we conclude that the above mentioned three purchase intention statements are strong predictors.

Whereas the regression coefficient of the remaining statement, 'I would rather use products that have environmental obligations, even if they have the same features as another product purchase intention' is non-significant. The Beta coefficients of purchase intention (I would rather use products that have environmental obligations, even if they have the same features as another product) show insignificant relationship.

Table 4.5.6.1.5: KMO and Bartlett's Test for Green Product/ Brand Awareness and Purchase Intention

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.745
Approx. Chi-Square	1163.666

Bartlett's Test of Sphericity	df	6
	Sig.	.000

According to the above findings, the sample adequacy KMO score is 0.745. Bartlett's Test of Sphericity significant P-Value is 0.000, which is less than 0.05 and indicates that the data is appropriate for factor analysis.

Table 4.5.6.1.6: KMO Range Communalities for Green Product/ Brand Awareness and Purchase Intention

Model	Initial	Extraction
Because of its commitment to the environment, using green items makes sense instead of other products.	1.000	.554
I would rather use products that have environmental obligations, even if they have the same features as another product.	1.000	.597
Even if there is a better product than green items, I would rather use the greed one.	1.000	.597
Using green items makes sense if other products do not pose a threat to the environment.	1.000	.662

Extraction Method: Principal Component Analysis.

Generally, communalities with a range of less than 0.50 are ignored since they add nothing to the factor analysis. However, in this instance, every range value is greater than 0.50; hence, every value was taken into account when doing the factor analysis.

Table 4.5.6.1.7: Total Variance Explained for Green Product/ Brand Awareness and Purchase Intention

CT	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.410	60.261	60.261	2.410	60.261	60.261
2	.707	17.667	77.928			
3	.483	12.069	89.997			
4	.400	10.003	100.000			

Extraction Method: Principal Component Analysis.

There is one component which has the Initial Eigen Values over 1 and it explains for about 60.261 percent of variation.

Graph 4.10: Scree Plot for Green Product/ Brand Awareness and Purchase Intention
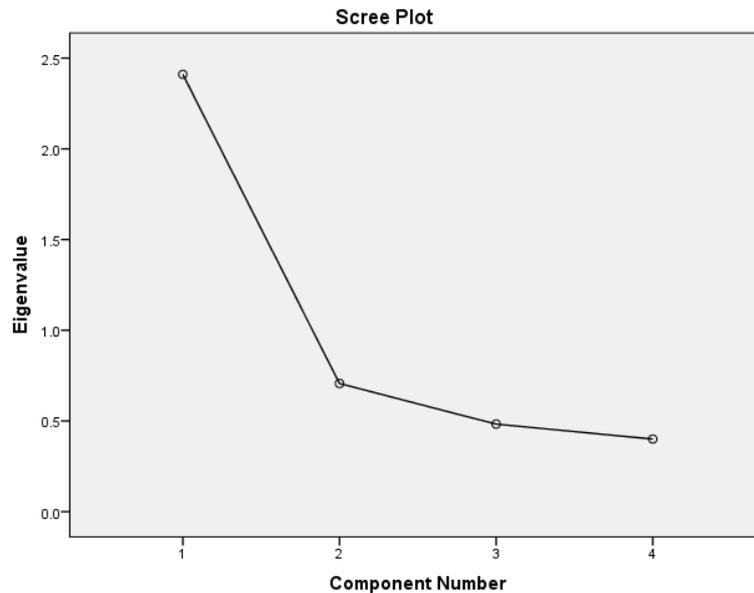
Rotated Component cannot be calculated as only one component was extracted.

4.5.6.2 Green Brand Awareness and Perceived Quality

H$_{05}$: There is no significant relationship between Green products /brand awareness and their perceived quality.

Table 4.5.6.2.1: Green Product/ Brand Awareness and Perceived Quality

	Perceived Quality	
Green Purchase Behaviour	Pearson's Correlation	0.449
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Green Product/ Brand Awareness and Perceived Quality. The value of Correlation coefficient (r) is 0.449 which indicates that there is almost a moderate degree of positive correlation between Green Product/ Brand Awareness and Perceived Quality. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. Based on the statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that there is almost a moderate degree of positive correlation between Green Product/ Brand Awareness and Perceived Quality.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.6.2.2: Model Summary for Green Product/ Brand Awareness and Perceived Quality

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.465[a]	.216	.212	.4430

Above table shows coefficient of determination (R Square) 0.216, which means 21.6% variation in dependent variable (Green Product/ Brand Awareness) is explained by independent variable (Perceived Quality).

Table 4.5.6.2.3: ANOVA for Green Product/ Brand Awareness and Perceived Quality

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	56.404	5	11.281	57.493	.000[b]
	Residual	204.845	1045	.196		
	Total	261.249	1050			

Dependent Variable: Perceived Quality

Independent Variable: Green Product/ Brand Awareness

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be concluded that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.6.2.4: Coefficients for Green Product/ Brand Awareness and Perceived Quality

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.578	.101		25.460	.000
I am aware of the work green brands do to protect the environment.	.042	.020	.069	2.128	.034
I've noticed a few environmental tags for the many eco-friendly companies.	.010	.024	.014	.419	.675

I understand the significance of the environmental phrases and icons that readily available green brands employ in their advertising campaigns.	.149	.024	.222	6.198	.000
Some of the environmental emblems used by the many green firms in their marketing campaigns are ones that I can still recall.	.074	.026	.113	2.896	.004
I will choose to choose a green brand if I see an environmental label on it.	.115	.024	.169	4.807	.000

Among the five green brand awareness constructs studied, the regression coefficients (Beta) of four (i.e., 'I am aware of the work green brands do to protect the environment', 'I understand the significance of the environmental phrases and icons that readily available green brands employ in their advertising campaigns, 'Some of the environmental emblems used by the many green firms in their marketing campaigns are ones that I can still recall' and 'I will choose to choose a green brand if I see an environmental label on it.') is found to be 0.69, .149, .074 and .115 respectively. Also, the regression coefficients (Beta) of these purchase intention is significant as P-value (0.00) is less than significance level .05. Thus, we conclude that the above mentioned four purchase intention statements are strong predictors.

Whereas the regression coefficient of 'I've noticed a few environmental tags for the many eco-friendly companies' is non-significant.

Table 4.5.6.2.5: KMO and Bartlett's Test for Green Product/ Brand Awareness and Perceived Quality

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.827
Bartlett's Test of Sphericity	Approx. Chi-Square	1689.428
	df	10
	Sig.	.000

The above results show that the KMO measure of sampling adequacy is 0.827. The significance P-Value of Bartlett's Test of Sphericity is 0.000 which is less than 0.05 that signifies the data is suitable for the application of factor analysis.

Table: 4.5.6.2.6 KMO Range Communalities for Green Product/ Brand Awareness and Perceived Quality

Model	Initial	Extraction
I am aware of the work green brands do to protect the environment.	1.000	.475
I've noticed a few environmental tags for the many eco-friendly companies.	1.000	.574
I understand the significance of the environmental phrases and icons that readily available green brands employ in their advertising campaigns.	1.000	.600
Some of the environmental emblems used by the many green firms in their marketing campaigns are ones that I can still recall.	1.000	.690
I will choose to choose a green brand if I see an environmental label on it.	1.000	.567

Extraction Method: Principal Component Analysis.

Usually the communalities range less than 0.50 is not taken in to consideration as these factors are not contributing anything to the factor analysis. But, in this case all the range values except 'I am aware of the work green brands do to protect the environment' are more than 0.50, hence, all the values were considered in the calculation of factor analysis other than that.

Table 4.5.6.2.7: Total Variance Explained for Green Product/ Brand Awareness and Perceived Quality

CT	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.906	58.123	58.123	2.906	58.123	58.123
2	.642	12.836	70.959			
3	.571	11.427	82.386			
4	.525	10.499	92.885			
5	.356	7.115	100.000			

Extraction Method: Principal Component Analysis.

There is one component having the Initial Eigen Values over 1 and it explains for about 58.123 percent of variation.
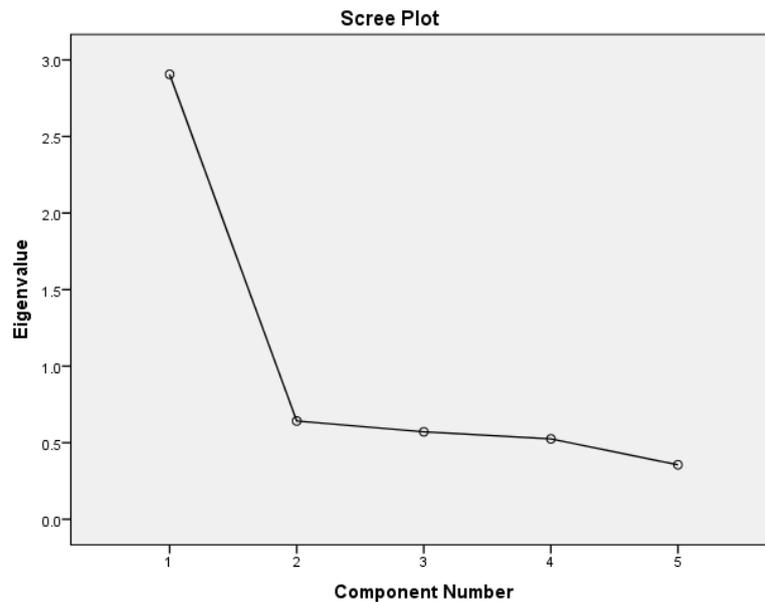
Rotated Component cannot be calculated as only one component was extracted.

4.5.6.3 Perceived Green Product/ Brand Image and Perceived Quality

H$_{O7}$: There is no significant relationship between Green products /brand image and their perceived quality.

Table 4.5.6.3.1: Green Product/ Brand Image and Perceived Quality

	Perceived Barriers	
Green Purchase Behaviour	Pearson's Correlation	0.438
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Green Product/ Brand Image and Perceived Quality. The value of Correlation coefficient (r) is 0.438 which indicates that there is a low degree of positive correlation between Green Product/ Brand Image and Perceived Quality. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. Based on the statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that there is

a low degree of positive correlation between Green Product/ Brand Image and Perceived Quality.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.6.3.2: Model Summary for Green Brand Image and Perceived Quality

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.441[a]	0.195	.191	.4489

Above table shows coefficient of determination (R Square) 0.195, which means 19.5% variation in dependent variable (Perceived Quality) is explained by independent variable (Green Brand Image).

Table 4.5.6.3.3: ANOVA for Green Brand Image and Perceived Quality

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	50.859	5	10.179	50.519	.000[b]
	Residual	210.354	1045	.201		
	Total	261.249	1050			

Dependent Variable: Green Perceived Quality
Independent Variable: Green Brand Image

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be concluded that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.6.3.4: Coefficients for Green Brand Image and Perceived Quality

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.620	.107		24.547	.000
The greatest standard for environmental promises, in my opinion, is the brands of green items.	.062	.021	.093	2.977	.003

The environmental reputation of the green brands is managed expertly.	.070	.024	.104	2.962	.003
The green brands that are readily available function well in terms of the environment.	.081	.023	.124	3.449	.001
A green product's brand genuinely focuses on environmental commitments.	.123	.023	.196	5.329	.000
Green goods brands have a strong reputation for caring about the environment.	.056	.024	.081	2.305	.021

For all five statements, the regression coefficients (Beta) (i.e., 'The greatest standard for environmental promises, in my opinion, is the brands of green items', 'The environmental reputation of the green brands is managed expertly', 'The green brands that are readily available function well in terms of the environment', 'A green product's brand genuinely focuses on environmental commitments' and 'Green goods brands have a strong reputation for caring about the environment' is found to be .062, .070, .081, .123 and 0.56 respectively.

Table 4.5.6.3.5: KMO and Bartlett's Test for Green Brand Image and Perceived Quality

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.724
Bartlett's Test of Sphericity	Approx. Chi-Square	1392.991
	df	10
	Sig.	.000

The above results show that the KMO measure of sampling adequacy is 0.724. The significance P-Value of Bartlett's Test of Sphericity is 0.000 which is less than 0.05 that signifies the data is suitable for the application of factor analysis.

Table 4.5.6.3.6: Communalities for Green Brand Image and Perceived Quality

Model	Initial	Extraction
The greatest standard for environmental promises, in my opinion, is the brands of green items.	1.000	.560
The environmental reputation of the green brands is managed expertly.	1.000	.549
The green brands that are readily available function well in terms of the environment.	1.000	.579
A green product's brand genuinely focuses on environmental commitments.	1.000	.599
Green goods brands have a strong reputation for caring about the environment.	1.000	.536

Extraction Method: Principal Component Analysis.

Usually the communalities range less than 0.50 is not taken in to consideration as these factors are not contributing anything to the factor analysis. But, in this case all the range values are more than 0.50, hence, all the values were considered in the calculation of factor analysis.

Table 4.5.6.3.7: Total Variance Explained for Green Brand Image and Perceived Quality

CT	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.622	52.437	52.437	2.622	52.437	52.437
2	.804	16.071	68.508			
3	.758	15.169	83.677			
4	.443	8.851	92.528			
5	.374	7.472	100.000			

Extraction Method: Principal Component Analysis.

There is one component having the Initial Eigen Values over 1 and it explains for about 52.437 percent of variation.

Graph 4.12: Scree Plot for Green Brand Image and Perceived Quality
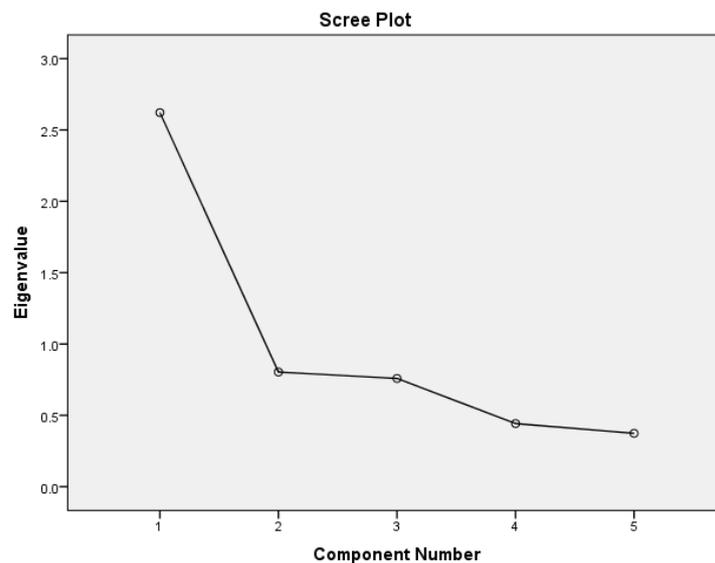
Rotated Component cannot be calculated as only one component was extracted.

4.5.6.4 Perceived Green Brand Image and Purchase Intention

H$_{O8}$: There is no significant relationship between Green products /brand image and their purchase intention.

Table 4.5.6.4.1: Green Product/ Brand Image and Purchase Intention

		Purchase Intention
Green Purchase Behaviour	Pearson's Correlation	0.367
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Green Product/ Brand Image and Purchase Intention. The value of Correlation coefficient (r) is 0.367 which indicates that there is a low degree of positive correlation between Green Product/ Brand Image and Purchase Intention. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. Based on the statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that there is a low degree of positive correlation between Green Product/ Brand Image and Purchase Intention.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.6.4.2: Model Summary for Green Product/ Brand Image and Purchase Intention

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.384[a]	.148	.144	.8089

Above table shows coefficient of determination (R Square) 0.148, which means 14.8% variation in dependent variable (Purchase Intention) is explained by independent variable (Green Product/ Brand Image).

Table 4.5.6.4.3: ANOVA for Green Product/ Brand Image and Purchase Intention

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	118.479	5	23.696	36.211	.000[b]
	Residual	683.185	1045	.654		
	Total	801.665	1050			

Dependent Variable: Purchase Intention

Independent Variable: Green Product/ Brand Image

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be concluded that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.6.4.4: Coefficients for Green Product/ Brand Image and Purchase Intention

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.393	.192		22.836	.000
The greatest standard for environmental promises, in my opinion, is the brands of green items.	.167	.038	.142	4.434	.000
The environmental reputation of the green brands is managed expertly.	.085	.043	.071	1.984	.048
The green brands that are readily available function well in terms of the environment.	.087	.042	.076	2.055	.040
A green product's brand genuinely focuses on environmental commitments.	.260	.042	.237	6.260	.000
Green goods brands have a strong reputation for caring about the environment.	-.025	.044	-.021	-.569	.570

Among the five perceived green brand image, the regression coefficients (Beta) of four (i.e., 'The greatest standard for environmental promises, in my opinion, is the brands of green items', 'The environmental reputation of the green brands is managed expertly', 'The green brands

that are readily available function well in terms of the environment' and 'A green product's brand genuinely focuses on environmental commitments' is found to be .167, 0.85, .087 and .260 respectively.

Whereas the regression coefficient of the remaining one statement 'Green goods brands have a strong reputation for caring about the environment' is non-significant.

5.4.7 RELATIONSHIP BETWEEN GREEN MARKETING TOOLS AND GREEN PURCHASE BEHAVIOUR (Objective 7)

As per the literature review done by the researcher, following green marketing tools were identified:

1. Green Perceived Product
2. Green Perceived Place
3. Green Perceived Price and
4. Green Perceived Promotion

Each of the Green Marketing tool has been correlated to understand their relationship with Green Purchase behaviour. And further, analysis has been run to determine the nature of relationship between Green Marketing tool and Green Purchase behaviour.

4.5.7.1 Green Marketing Tools and Green Purchase Behaviour

H_{O9}: There is no significant relationship between Green marketing tools and consumers' green purchase behaviour.

4.5.7.1 Perceived Product and Green Purchase Behaviour

$H_{O9(a)}$: There is no significant relationship between Green Perceived Product and consumers' green purchase behaviour.

Table 4.5.7.1.1: Green Perceived Product and GPB

	Green Perceived Product	
Green Purchase Behaviour	Pearson's Correlation	0.404
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Green Perceived Product and Green Purchase Behaviour The value of Correlation coefficient (r) is 0.404 which indicates that there is a low degree of positive correlation between Green Perceived Product and Green Purchase Behaviour. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. Based on the statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that though low but there is a positive correlation between Green Perceived Product and Green Purchase Behaviour.

Further, to find out how these two variables and its sub-dimensions are related regression analysis technique was applied.

Table 4.5.7.1.2: Model Summary for Green Perceived Product and GPB

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.240[a]	.058	.049	.9546949038

Above table shows coefficient of determination (R Square) 0.058, which means 5.8% variation in dependent variable (Green Purchase Behaviour) is explained by independent variable (Green Perceived Product).

Table 4.5.7.2.3: ANOVA for Green Perceived Product and GPB

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57.989	10	6.443	7.069	.000[b]
	Residual	947.900	1040	.911		
	Total	1005.889	1050			

Dependent Variable: Green Purchase Behaviour

Independent Variable: Green Perceived Product

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be concluded that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.7.1.4: Coefficient for Green Perceived Product and GPB

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.380	.328		13.346	.000
I find green-branded goods to be trustworthy.	.172	.055	.119	3.129	.002
Greener products are superior to non-green ones.	.089	.047	.067	1.900	.058
Green brands, in my opinion, don't fully fulfil the greening process.	-.035	.030	-.037	-1.151	.250
Green labels are simple to identify	.163	.038	.139	4.256	.000
I think Green Labels are a great resource when selecting a product.	-.027	.053	-.018	-.501	.617
Green labels persuade me to buy the goods.	.013	.053	.008	.245	.806
The packaging makes a green product easier to identify.	-.179	.053	-.116	-3.401	.001
Environmentally friendly packaging appeals to me more than non-eco-friendly packaging.	.041	.053	.027	.780	.436
I like to purchase goods packaged in an environmentally responsible manner	.076	.049	.054	1.563	.118

Among the nine Green Perceived Product statements studied, the regression coefficients (Beta) of three behaviour statements (i.e., 'I find green-branded goods to be trustworthy', 'Green labels are simple to identify' and 'The packaging makes a green product easier to identify') are found to be 0.172, and 0.163 and -.179 respectively.

The regression coefficients (Beta) of six statements 'Greener products are superior to non-green ones', 'Green brands, in my opinion, don't fully fulfil the greening process', 'I think Green Labels are a great resource when selecting a product', 'Green labels persuade me to buy the goods', 'Environmentally friendly packaging appeals to me more than non-eco-friendly packaging' and 'I like to purchase goods packaged in an environmentally responsible manner'

are non-significant as P-value (0.598) is less than significance level .05. Thus we can conclude that these all statements are not strong predictors of Green Purchase Behaviour.

Table 4.5.7.1.5: KMO and Bartlett's Test for Green Perceived Product and GPB

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.765
Bartlett's Test of Sphericity	Approx. Chi-Square	1526.361
	df	36
	Sig.	.000

According to the aforementioned findings, the sample adequacy KMO score is 0.765. Bartlett's Test of Sphericity significant P-Value is 0.000, which is less than 0.05 and indicates that the data is appropriate for factor analysis.

Table 4.5.7.1.6: KMO Range Communalities for Green Perceived Product and GPB

	Initial	Extraction
I find green-branded goods to be trustworthy.	1.000	.570
Greener products are superior to non-green ones.	1.000	.528
Green brands, in my opinion, don't fully fulfil the greening process.	1.000	.532
Green labels are simple to identify	1.000	.430
I think Green Labels are a great resource when selecting a product.	1.000	.485
Green labels persuade me to buy the goods.	1.000	.562
The packaging makes a green product easier to identify.	1.000	.543
Environmentally friendly packaging appeals to me more than non-eco-friendly packaging.	1.000	.651
I like to purchase goods packaged in an environmentally responsible manner.	1.000	.589

Extraction Method: Principal Component Analysis.

Generally, communalities with a range of less than 0.50 are ignored since they add nothing to the factor analysis. However, in this instance, every range value is more than 0.50, with the exception of 'Green labels are easy to identify' and 'I believe Green Labels are a great resource when selecting a product.' Therefore, when calculating the factor analysis, all of the values were taken into account.

Table 4.5.7.1.7: Total Variance Explained for Green Perceived Product and GPB

CT	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	A	B	C	A	B	C	A	B	C
1	2.865	31.829	31.829	2.865	31.829	31.829	2.217	24.633	24.633
2	1.224	13.597	45.426	1.224	13.597	45.426	1.871	20.793	45.426
3	.966	10.728	56.154						
4	.890	9.887	66.041						
5	.788	8.753	74.794						
6	.715	7.949	82.743						
7	.591	6.565	89.308						
8	.486	5.400	94.708						
9	.476	5.292	100.000						

Extraction Method: Principal Component Analysis.

A= Total, B= % of Variance, C= Cumulative %

There are two components having the Initial Eigen Values over 1 and it explains for about 45.426 percent of variation.

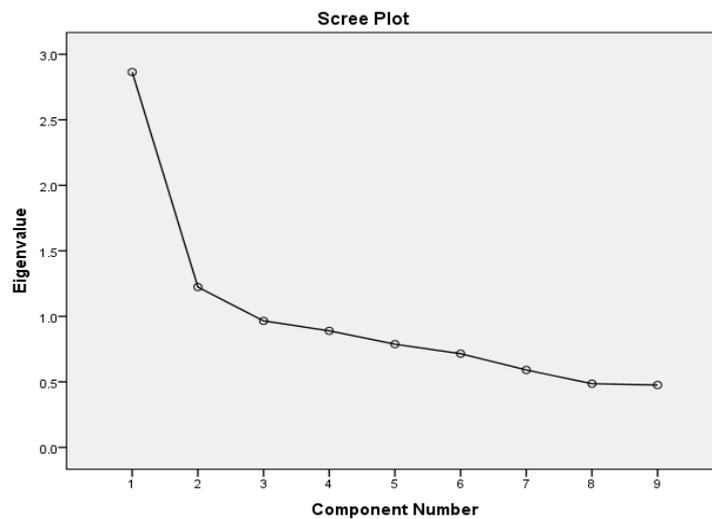*Graph 4.13: Scree Plot for Green Perceived Product and GPB*

Table 4.5.7.1.8: Rotated Component Matrix^a for Green Perceived Product and GPB

	Component	
	1	2
I find green-branded goods to be trustworthy.	.661	
Greener products are superior to non-green ones.	.533	
Green brands, in my opinion, don't fully fulfil the greening process.	.626	
Green labels are simple to identify	.574	
I think Green Labels are a great resource when selecting a product.	.546	
Green labels persuade me to buy the goods.	.585	
The packaging makes a green product easier to identify.		.460
Environmentally friendly packaging appeals to me more than non-eco-friendly packaging.		.806
I like to purchase goods packaged in an environmentally responsible manner.		.766

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

The above table shows Principal Component Analysis. Varimax with Kaiser Normalization Rotated method is used in factors rotation. The analysis identified two components. Items having factor loading more than 0.40 is considered.

Factor 1 considers six attributes and explained 31.829 % of variance in the data with Eigen value of 2.865. The attributes associated with this factor includes 'I find green-branded goods to be trustworthy', 'Greener products are superior to non-green ones', 'Green brands, in my opinion, don't fully fulfil the greening process', 'Green labels are simple to identify', 'I think Green Labels are a great resource when selecting a product' and 'Green labels persuade me to buy the goods'

Factor 2 considers three attributes and explained 13.597 % of variance in the data with Eigen value of 1.224. The attributes associated with this factor includes 'The packaging makes a green product easier to identify', 'Environmentally friendly packaging appeals to me more than non-eco-friendly packaging' and 'I like to purchase goods packaged in an environmentally responsible manner.'

4.5.7.2 Perceived Price and Green Purchase Behaviour

H$_{O9(b):}$ There is no significant relationship between Green Perceived Price and consumers' Green Purchase Behaviour

Table 4.5.7.2.1: Green Perceived Price and GPB

	Green Perceived Price	
Green Purchase Behaviour	Pearson's Correlation	0.611
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Green Perceived Price and Green Purchase Behaviour. The value of Correlation coefficient (r) is 0.611 which indicates that there is a moderate degree of positive correlation between Green Perceived Price and Green Purchase Behaviour. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. On the basis of statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that there is a moderate positive correlation between Green Perceived Price and Green Purchase Behaviour.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.7.2.2: Model Summary for Green Perceived Price and GPB

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.084[a]	.007	.004	.6442

Above table shows coefficient of determination (R Square) 0.007, which means 7% variation in dependent variable (Green Purchase Behaviour) is explained by independent variable (Green Perceived Price).

Table 4.5.7.2.3: ANOVA for Green Perceived Price and GPB

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.097	3	1.032	2.487	.000[b]
	Residual	434.106	1047	.415		
	Total	437.203	1050			

Dependent Variable: Green Purchase Behaviour
Independent Variable: Green Perceived Price

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be concluded that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.7.2.4: Coefficients for Green Perceived Price and GPB

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5.494	.241		22.819	.000
I'm willing to spend more money on eco-friendly things.	.029	.025	.039	1.152	.250
Green items are nice, but they cost a lot of money.	-.143	.032	-.162	-4.493	.000
My main consideration when choosing green items is price.	.014	.033	.015	.422	.673
Even though I would prefer to purchase eco-friendly goods, I am unable to do so.	-.039	.024	-.053	-1.584	.114
If green products are just as expensive as my preferred brands, I'll switch to them.	.158	.044	.113	3.621	.000

From among the five statements relating to Green Perceived Price, the regression coefficients (Beta) of two behaviour studied (i.e., 'Green items are nice, but they cost a lot of money' and 'If green products are just as expensive as my preferred brands, I'll switch to them') are found to be --.143, and .158 respectively.

The regression coefficients (Beta) of three statements relating to green perceived price are 'I'm willing to spend more money on eco-friendly things', 'My main consideration when choosing green items is price' and 'Even though I would prefer to purchase eco-friendly goods, I am

unable to do so' have significant value more than 0.005 hence they are negative and non-significant.

Table 4.5.7.2.5: KMO and Bartlett's Test for Green Perceived Price and GPB

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.539
Bartlett's Test of Sphericity	Approx. Chi-Square	581.725
	df	10
	Sig.	.000

The results mentioned above demonstrate that the sample adequacy KMO score is 0.539. Bartlett's Test of Sphericity significant P-Value is 0.000, which is less than 0.05 and indicates that the data is appropriate for factor analysis.

Table 4.5.7.2.6: KMO Range Communalities for Green Perceived Price and GPB

	Initial	Extraction
I'm willing to spend more money on eco-friendly things.	1.000	.677
Green items are nice, but they cost a lot of money.	1.000	.732
My main consideration when choosing green items is price.	1.000	.660
Even though I would prefer to purchase eco-friendly goods, I am unable to do so.	1.000	.618
If green products are just as expensive as my preferred brands, I'll switch to them.	1.000	.542

Extraction Method: Principal Component Analysis.

Generally, communalities with a range of less than 0.50 are ignored since they add nothing to the factor analysis. Every range value in this instance is greater than 0.50. Therefore, when calculating the factor analysis, all of the values were taken into account.

Table 4.5.7.2.7: Total Variance Explained for Green Perceived Price and GPB

CT	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	A	B	C	A	B	C	A	B	C
1	1.708	34.157	34.157	1.708	34.157	34.157	1.567	31.347	31.347
2	1.321	26.418	60.575	1.321	26.418	60.575	1.461	29.229	60.575
3	.905	18.102	78.677						
4	.590	11.802	90.479						
5	.476	9.521	100.000						

Extraction Method: Principal Component Analysis.
A= Total, B= % of Variance, C= Cumulative %

There are two components having the Initial Eigen Values over 1 and it explains for about 60.575 percent of variation.

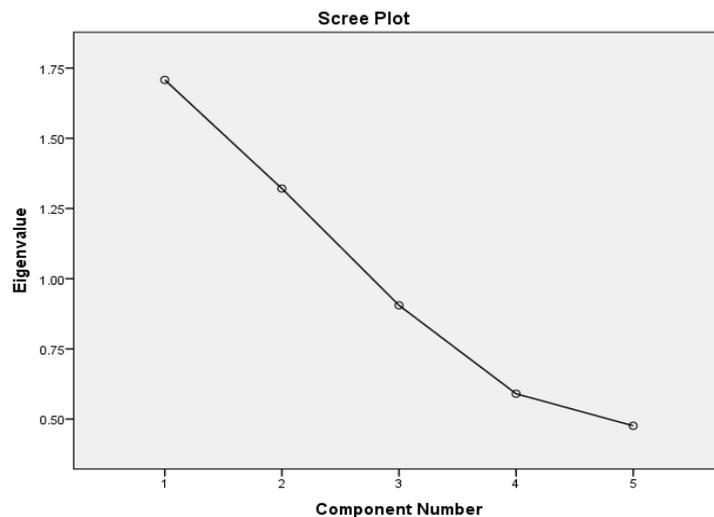*Graph 4.14: Scree Plot for Green Perceived Price and GPB*

Table 4.5.7.2.8: Rotated Component Matrix^a for Green Perceived Price and GPB

	Component	
	1	2
I'm willing to spend more money on eco-friendly things.		.818
Green items are nice, but they cost a lot of money.	.841	
My main consideration when choosing green items is price.	.807	
Even though I would prefer to purchase eco-friendly goods, I am unable to do so.		.781

If green products are just as expensive as my preferred brands, I'll switch to them.	.439	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

The above table shows Principal Component Analysis. Varimax with Kaiser Normalization Rotated method is used in factors rotation. The analysis identified two components. Items having factor loading more than 0.40 is considered.

Factor 1 considers three attributes and explained 34.157 % of variance in the data with Eigen value of 1.708. The attributes associated with this factor includes 'Green items are nice, but they cost a lot of money', 'My main consideration when choosing green items is price' and 'If green products are just as expensive as my preferred brands, I'll switch to them'.

Factor 2 considers two attributes and explained 26.418 % of variance in the data with Eigen value of 1.321. The attributes associated with this factor includes 'I'm willing to spend more money on eco-friendly things' and 'Even though I would prefer to purchase eco-friendly goods, I am unable to do so'.

4.5.7.3 Perceived Place and Green Purchase Behaviour

H$_{O9(c)}$: There is no significant relationship between Green Perceived Place and consumers' Green Purchase Behaviour.

Table 4.5.7.3.1: Green Perceived Place and Green Purchase Behaviour

	Green Perceived Place	
Green Purchase Behaviour	Pearson's Correlation	0.565
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Green Perceived Place and Green Purchase Behaviour. The value of Correlation coefficient (r) is 0.565 which indicates that there is a moderate degree of positive correlation between Green Perceived Place and Green Purchase Behaviour. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. Based on the statistical outcomes of correlation technique, the

null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that there is a moderate positive correlation between Green Perceived Place and Green Purchase Behaviour.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.7.3.2: Model Summary for Green Perceived Place and GPB

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.116[a]	.013	.011	.7616

Above table shows coefficient of determination (R Square) 0.013, which means 1.3% variation in dependent variable (Green Purchase Behaviour) is explained by independent variable (Green Perceived Place).

Table 4.5.7.3.3: ANOVA for Green Perceived Place and GPB

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	8.292	3	2.764	4.765	.000[b]
1	Residual	606.732	1047	.580		
	Total	615.025	1050			

Dependent Variable: Green Purchase Behaviour
Independent Variable: Green Perceived Place

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be concluded that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.7.3.4: Coefficient for Green Perceived Place and GPB

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5.540	.160		34.679	.000
I see green products all the time in my area.	.021	.049	.026	.431	.667
Green products are readily available in my area.	-.060	.053	-.072	-1.118	.264
In my community, I have no trouble locating environmentally friendly products.	.082	.034	.109	2.392	.017
There are no green products at the stores where I shop.	-.112	.027	-.144	-4.202	.000
If green items are readily available, I might buy them.	.100	.035	.099	2.857	.004

The regression coefficients (Beta) of two statements of Green Perceived Place (i.e., 'There are no green products at the stores where I shop' and 'If green items are readily available, I might buy them') are found to be -.112 and .100 respectively. The regression coefficients (Beta) of theses Green Perceived Place are significant as P-value (0.00) is less than significance level .05. Thus, we conclude that it is a strong predictor.

Other than that, the regression coefficients (Beta) of the statement 'I see green products all the time in my area', 'Green products are readily available in my area' and 'In my community, I have no trouble locating environmentally friendly products.' are not a predictor of Green Purchase behaviour, since it is non-significantly related.

Table 4.5.7.3.5: KMO and Bartlett's Test for Green Perceived Place and GPB

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.676
Bartlett's Test of Sphericity	Approx. Chi-Square	2466.694
	df	10
	Sig.	.000

The results mentioned above demonstrate that the sample adequacy KMO score is 0.676. Bartlett's Test of Sphericity significant P-Value is 0.000, which is less than 0.05 and indicates that the data is appropriate for factor analysis.

Table 4.5.7.3.6: KMO Range Communalities for Green Perceived Place and GPB

	Initial	Extraction
I see green products all the time in my area.	1.000	.854
Green products are readily available in my area.	1.000	.891
In my community, I have no trouble locating environmentally friendly products.	1.000	.764
There are no green products at the stores where I shop.	1.000	.732
If green items are readily available, I might buy them.	1.000	.725

Extraction Method: Principal Component Analysis.

Generally, communalities with a range of less than 0.50 are ignored since they add nothing to the factor analysis. Every range value in this instance is greater than 0.50. Therefore, when calculating the factor analysis, all of the values were taken into account.

Table 4.5.7.3.7: Total Variance Explained for Green Perceived Place and GPB

CT	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	A	B	C	A	B	C	A	B	C
1	2.535	50.699	50.699	2.535	50.699	50.699	2.529	50.577	50.577
2	1.432	28.650	79.348	1.432	28.650	79.348	1.439	28.772	79.348
3	.554	11.090	90.438						
4	.340	6.792	97.230						
5	.138	2.770	100.000						

Extraction Method: Principal Component Analysis.
A= Total, B= % of Variance, C= Cumulative %

There are two components having the Initial Eigen Values over 1 and it explains for about 79.348 percent of variation.

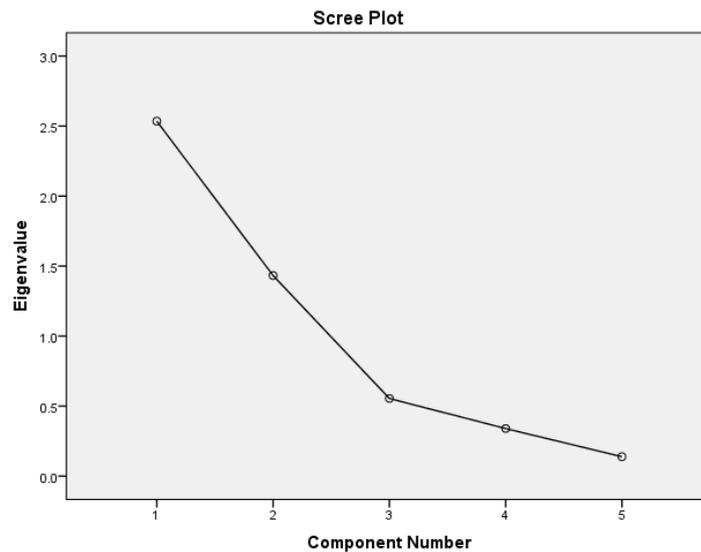*Graph 4.15: Scree Plot for Green Perceived Place and GPB*

Table 4.5.7.3.8: Rotated Component Matrix^a for Green Perceived Place and GPB

	Component	
	1	2
I see green products all the time in my area.	.924	
Green products are readily available in my area.	.943	
In my community, I have no trouble locating environmentally friendly products.	.874	
There are no green products at the stores where I shop.		.852
If green items are readily available, I might buy them.		.843

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

The above table shows Principal Component Analysis. Varimax with Kaiser Normalization Rotated method is used in factors rotation. The analysis identified two components. Items having factor loading more than 0.40 is considered.

Factor 1 considers three attributes and explained 50.699 % of variance in the data with Eigen value of 2.535. The attributes associated with this factor includes 'I see green products all the time in my area', 'Green products are readily available in my area' and 'In my community, I have no trouble locating environmentally friendly products'.

Factor 2 considers two attributes and explained 28.650 % of variance in the data with Eigen value of 1.432. The attributes associated with this factor includes 'There are no green products at the stores where I shop' and 'If green items are readily available, I might buy them'.

4.5.7.4 Perceived Promotion and Green Purchase Behaviour

H$_{O9(d):}$ There is no significant relationship between Green Perceived Promotion and consumers' Green Purchase Behaviour.

Table 4.5.7.4.1: Green Perceived Promotion and GPB

	Green Perceived Promotion	
Green Purchase Behaviour	Pearson's Correlation	0.677
	Sig. (2 tailed)	0.000
	N	1050

The above table shows Pearson Correlation between Green Perceived Promotion and Green Purchase Behaviour. The value of Correlation coefficient (r) is 0.677 which indicates that there is a bit more than moderate degree of positive correlation between Green Perceived Promotion and Green Purchase Behaviour. Also, the correlation coefficient is significant as its p-value is 0.00 and is less than significance level .05. Based on the statistical outcomes of correlation technique, the null hypothesis is rejected, and alternative hypothesis is accepted. Hence, we conclude that there is a bit more than moderate positive correlation between Green Perceived Promotion and Green Purchase Behaviour.

Further, to find out how these two variables and its sub-dimensions are related, regression analysis technique was applied.

Table 4.5.7.4.2: Model Summary for Green Perceived Promotion and GPB

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.184[a]	.034	.031	.75247

Above table shows coefficient of determination (R Square) 0.034, which means 3.4% variation in dependent variable (Green Purchase Behaviour) is explained by independent variable (Green Perceived Promotion).

Table 4.5.7.4.3: ANOVA for Green Perceived Promotion and GPB

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.776	3	6.925	12.231	.000[b]
	Residual	592.256	1047	.566		
	Total	613.033	1050			

Dependent Variable: Green Purchase Behaviour

Independent Variable: Perceived Green Promotion

Above table tries to test overall goodness of fit of fitted regression model. From above table, it can be concluded that the fitted model is significant as P-Value of F statistics is 0.00 and it is less than level of significance level .05.

Table 4.5.7.4.4: Coefficient for Green Perceived Promotion and GPB

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.165	.301		13.853	.000
I like to see advertisements that highlight the environmental benefits of products.	.013	.046	.010	.279	.780
I'm interested in green advertising.	.125	.049	.095	2.543	.011
Environmental advertisements expand my understanding of eco-friendly items.	.045	.047	.034	.949	.343
Environmental advertising helps consumers make wise purchasing decisions.	-.069	.050	-.046	-1.374	.170
An appealing environmental commercial will persuade me to purchase eco-friendly goods.	.104	.046	.073	2.229	.026
Consumers find green marketing to be of low credibility.	.016	.023	.023	.708	.479
The environmental promises made in green advertising are vague.	.131	.031	.139	4.286	.000

For all the seven statements of Green perceived promotion studied, the regression coefficients (Beta) of one behaviour 'The environmental promises made in green advertising are vague' is

found to be .131. The regression coefficients (Beta) of Green perceived promotion is significant as P-value (0.00) is less than significance level .05. Thus, we conclude that it is a strong predictor.

Other than that, the regression coefficients (Beta) of 'I like to see advertisements that highlight the environmental benefits of products', 'I'm interested in green advertising', 'Environmental advertisements expand my understanding of eco-friendly items', 'Environmental advertising helps consumers make wise purchasing decisions', 'An appealing environmental commercial will persuade me to purchase eco-friendly goods' and 'Consumers find green marketing to be of low credibility' are non-significant.

Table 4.5.7.4.5: KMO and Bartlett's Test for Green Perceived Promotion and GPB

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.725
Bartlett's Test of Sphericity	Approx. Chi-Square	1131.625
	df	21
	Sig.	.000

According to the above findings, the sample adequacy KMO score is 0.725. Bartlett's Test of Sphericity significant P-Value is 0.000, which is less than 0.05 and indicates that the data is appropriate for factor analysis.

Table 4.5.7.4.6: KMO Range Communalities for Green Perceived Promotion and GPB

	Initial	Extraction
I like to see advertisements that highlight the environmental benefits of products.	1.000	.574
I'm interested in green advertising.	1.000	.580
Environmental advertisements expand my understanding of eco-friendly items.	1.000	.535
Environmental advertising helps consumers make wise purchasing decisions.	1.000	.380
An appealing environmental commercial will persuade me to purchase eco-friendly goods.	1.000	.307
Consumers find green marketing to be of low credibility.	1.000	.673
The environmental promises made in green advertising are vague.	1.000	.689

Extraction Method: Principal Component Analysis.

Generally, communalities with a range of less than 0.50 are ignored since they add nothing to the factor analysis. In this case all the range values except, 'Environmental advertising helps consumers make wise purchasing decisions' and 'An appealing environmental commercial will persuade me to purchase eco-friendly goods' are less than 0.50. Hence, all the values, except for the above two constructs were considered in the calculation of factor analysis.

Table 4.5.7.4.7: Total Variance Explained for Green Perceived Promotion and GPB

CT	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	A	B	C	A	B	C	A	B	C
1	2.403	34.335	34.335	2.403	34.335	34.335	2.379	33.992	33.992
2	1.334	19.057	53.392	1.334	19.057	53.392	1.358	19.400	53.392
3	.865	12.362	65.754						
4	.730	10.427	76.181						
5	.630	8.994	85.174						
6	.577	8.247	93.421						
7	.461	6.579	100.000						

Extraction Method: Principal Component Analysis.
A= Total, B= % of Variance, C= Cumulative %

There are two components having the Initial Eigen Values over 1 and it explains for about 53.392 percent of variation.

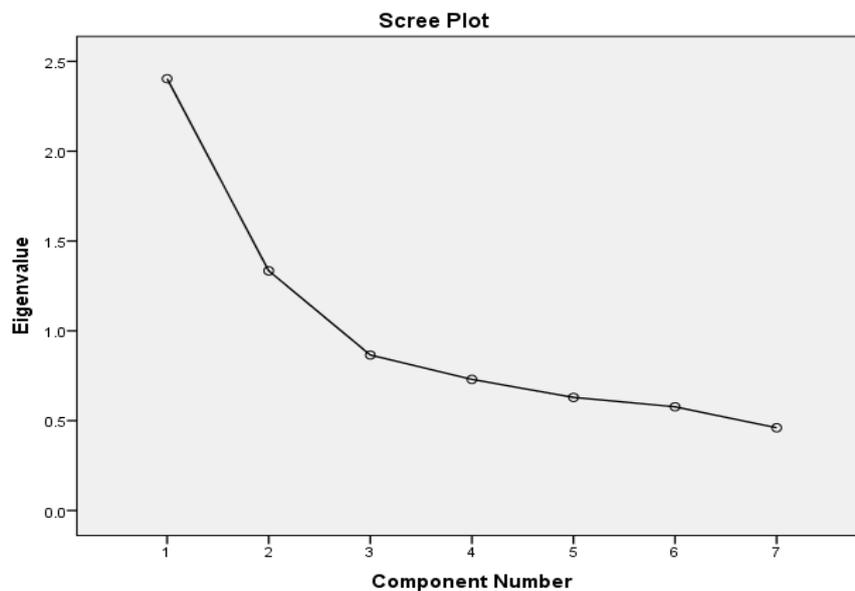*Graph 4.16: Scree Plot for Green Perceived Promotion and GPB*

Table 4.5.7.4.8: Rotated Component Matrix^a for Green Perceived Promotion and GPB

	Component	
	1	2
I like to see advertisements that highlight the environmental benefits of products.	.757	
I'm interested in green advertising.	.760	
Environmental advertisements expand my understanding of eco-friendly items.	.726	
Environmental advertising helps consumers make wise purchasing decisions.	.608	
An appealing environmental commercial will persuade me to purchase eco-friendly goods.	.554	
Consumers find green marketing to be of low credibility.		.808
The environmental promises made in green advertising are vague.		.827

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

The above table shows Principal Component Analysis. Varimax with Kaiser Normalization Rotated method is used in factors rotation. The analysis identified two components. Items having factor loading more than 0.40 is considered.

Factor 1 considers five attributes and explained 19.507 % of variance in the data with Eigen value of 1.334. The attributes associated with this factor includes 'I like to see advertisements that highlight the environmental benefits of products', 'I'm interested in green advertising', 'Environmental advertisements expand my understanding of eco-friendly items', 'Environmental advertising helps consumers make wise purchasing decisions' and 'An appealing environmental commercial will persuade me to purchase eco-friendly goods'.

Factor 2 considers two attributes and explained 28.650 % of variance in the data with Eigen value of 1.432. The attributes associated with this factor includes 'Consumers find green marketing to be of low credibility' and 'The environmental promises made in green advertising are vague'.

4.5.8 RELATIONSHIP BETWEEN CONSUMERS' DEMOGRAPHIC PROFILE AND SUSTAINABLE CONSUMPTION (Objective 8)

To better understand the effect of demographic on sustainable consumption behaviour, it is essential to determine whether sustainable consumption behaviour varies across various demographics. Before deciding whether to run a parametric or non-parametric test, to check the hypotheses, the Shapiro-Wilk test of Normality was conducted to see whether the variable is normally distributed or not as normal data is an underline assumption in parametric testing. If the data was found to be normally distributed, the parametric test of ANOVA was conducted and where the data was not normally distributed either Mann-Whitney U Test or Wallis H test was conducted.

4.5.8.1 Age and Sustainable Consumption

$H_{O11(a):}$ **There is no significant relationship between Age of consumers and Sustainable Consumption.**

Table 4.5.8.1.1: Tests of Normality for Age and Sustainable Consumption

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Age	.254	1050	.000	.799	1050	.000

As reflected in above table, the p-value was found to be less than .05 which reveals that the data set of age has a normal distribution. Hence, ANOVA analysis was performed to determine the impact of age on Sustainable Consumption Behaviour.

Table 4.5.8.1.2: **ANOVA** *for Age and Sustainable Consumption*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.678	5	.226	.983	.400
Within Groups	240.378	1045	.230		
Total	241.056	1050			

In case of different age groups, ANOVA analysis indicates that there is statistically insignificant difference between the group means. We can see that the p-value (.400) is greater than the level of significance 0.05. therefore, we accept the null hypothesis and conclude that age does not have any significant impact on Sustainable Consumption Behaviour.

4.5.8.2 Gender and Sustainable Consumption

H_{O11(b):} There is no significant relationship between Gender consumers and Sustainable Consumption.

Table 4.5.8.2.1.: Tests of Normality for Gender and Sustainable Consumption

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Gender	.418	1050	.000	.604	1050	.000

As reflected in above table, the p-value was found to be less than .05 which reveals that the data set of gender has a normal distribution. Hence, ANOVA analysis was performed to determine the impact of gender on Sustainable Consumption Behaviour.

Table 4.5.8.2.2: ANOVA for Gender and Sustainable Consumption

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.010	1	.010	.044	.834
Within Groups	241.046	1048	.230		
Total	241.056	1049			

In case of different gender groups, ANOVA analysis indicates that there is statistically significant difference between the group means. We can see that the p-value (.834) is greater than the level of significance 0.05. therefore, we accept the null hypothesis and conclude that gender does not have any significant impact on Sustainable Consumption Behaviour.

4.5.8.3 Income and Sustainable Consumption

H_{O11(c):} There is no significant relationship between Income of consumers and sustainable consumption.

Table 4.5.8.3.1: Tests of Normality for Income and Sustainable Consumption

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Income	.282	1049	.000	.781	1049	.000

As reflected in above table, the p-value was found to be less than .05 which reveals that the data set of income has a normal distribution. Hence, ANOVA analysis was performed to determine the impact of income on Sustainable Consumption Behaviour.

Table 4.5.8.3.2: ANOVA Income and Sustainable Consumption

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.116	3	1.372	6.056	.000
Within Groups	236.941	1046	.227		
Total	241.056	1049			

In case of different income groups, ANOVA analysis indicates that there is statistically significant difference between the group means. We can see that the p-value (.000) is lesser than the level of significance 0.05. therefore, we reject the null hypothesis and conclude that Income has a significant impact on Sustainable Consumption Behaviour.

4.5.8.4 Education and Sustainable Consumption

H$_{O11(d):}$ There is no significant relationship between Education of consumers and Sustainable Consumption.

Table 4.5.8.4.1: Tests of Normality for Education and Sustainable Consumption

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Education	.292	1050	.000	.731	1050	.000

As reflected in above table, the p-value was found to be less than .05 which reveals that the data set of education has a normal distribution. Hence, ANOVA analysis was performed to determine the impact of education on Sustainable Consumption Behaviour.

Table 4.5.8.4.2: ANOVA for Education and Sustainable Consumption

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.087	3	.362	1.579	.193
Within Groups	239.970	1046	.229		
Total	241.056	1049			

In case of different education groups, ANOVA analysis indicates that there is statistically insignificant difference between the group means. We can see that the p-value (.193) is greater than the level of significance 0.05. Therefore, we accept the null hypothesis and conclude that education does not have any significant impact on Sustainable Consumption Behaviour.

Table 4.27: A Snapshot of statistical tests performed on Constructs

Sr. no.	Scale	No. of items	Mean	Standard deviation	Cronbach's Alpha	KMO
Eco-Friendly Products and Consumerism						
1	Perception Towards Eco-Friendly Products	09	3.697	0.960	0.715	0.765
2	Reasons for Purchasing Eco-Friendly Products	07	3.915	0.994	0.711	0.633
Pro-Environmental Behaviour and Energy Savings						
3	Perceived Knowledge/ Awareness about Environment	10	3.370	1.137	0.839	0.832
4	Attitude towards Environmental Protection	08	4.199	0.816	0.719	.0744
5	Consumer's Energy-Saving Behaviour	09	4.158	0.868	0.743	0.761
Factors Determining Green Purchase Behaviour						
6	Knowledge about GHA	05	4.266	0.612	0.739	0.733
7	Attitude towards GHA	08	4.359	0.688	0.732	0.762
8	Consumer Readiness for GHA	07	3.568	1.145	0.707	0.640
9	Subjective Social Norms	04	3.456	1.216	0.752	0.559
10	Moral Norms	06	3.459	1.338	0.752	0.721
11	Environmental Self-Identity	05	4.079	0.779	0.778	0.572
12	Warm Glow	07	4.372	0.638	0.741	0.791
13	Perceived Barriers	10	3.476	1.205	0.721	0.767
14	Green Purchase Behaviour	03	3.782	0.824	0.703	0.661
Sustainable Development Practices / Consumption Behaviour						
15	Sustainable Consumption	11	4.384	0.682	0.897	0.899
Green Brand Awareness, Image, Perceived Quality, Purchase Intention						
16	Green Brand Awareness	05	4.176	0.757	0.871	0.827
17	Green Brand Image	05	4.079	0.753	0.771	0.742
18	Perceived Quality	05	4.223	0.706	0.749	0.750
19	Purchase Intention	04	4.206	0.702	0.779	0.745
Green Marketing Tools						
20	Green Perceived Product	09	4.188	0.727	0.702	0.539
21	Green Perceived Price	05	3.827	1.103	0.778	0.565
22	Green Perceived Place	05	2.956	1.186	0.744	0.676
23	Green Perceived Promotion	07	4.136	0.870	0.749	0.725