

Energy Management Consultations and Training Project
Demand Side Management Activities
(EMCAT-DSM)

INDIAN CONSUMER VIEWS OF APPLIANCE EFFICIENCY AND LABELING

Prepared by: A Survey Conducted by the International Resources Group and Sofres-
Mode as part of the EMCAT-DSM Project in India

Prepared for: Office of Environment, Energy and Enterprise
USAID/India
B-28, Qutub Institutional Area
New Delhi, India
Contract Number: OUT-PCE-I-803-96-00002-00,
Task Order No. 803

CONTENTS

EXECUTIVE SUMMARY

1.	INTRODUCTION AND METHODS	9
1.1	Study Background and Purposes	9
1.2	Consumers Represented In This Report.....	9
1.3	Sample Approach and Size	10
1.4	Questionnaire Development.....	11
1.5	Fielding	11
1.6	Interpretation of Tables	11
1.7	Organization of the Report	12
2.	THE REFRIGERATOR MARKET	12
2.1	General Characteristics of the Refrigerator Market	12
2.1.1	Ownership	12
2.1.2	Age of Refrigerators	12
2.1.3	Size	13
2.1.4	Major Brands.....	13
2.2	Motivations for Purchase.....	14
2.3	Factors Considered in Purchasing Refrigerators	14
3.	THE GEYSER MARKET	17
3.1	General Characteristics of the Geyser Market	17
3.1.1	Ownership	17
3.1.2	Age.....	17
3.1.3	Size	18
3.1.4	Type	18
3.1.5	Brand.....	18
3.2	Motivations for Purchasing Geysers.....	19
3.3	Factors Considered in Purchasing Geysers	20
4.	THE AIR CONDITIONER MARKET	22
4.1	General Characteristics of the Air Conditioner (AC) Market	22
4.1.1	Age.....	22
4.1.2	Type	22
4.2	Brand.....	23

4.3	Factors Motivating Purchasing ACs.....	23
4.4	Factors Considered in Purchasing ACs	24
5.	PURCHASE DECISION PROCESS	26
5.1	Decision Maker	26
5.2	Influencers.....	26
5.3	Sensitivity About Issues Related To Power.....	27
5.4	Willingness To Pay More For Power Efficient Appliances.....	27
6.	THE ROLE OF APPLIANCE LABELS	29
6.1	Meaning of the Star Label	29
6.2	Effectiveness of the Label.....	29
6.3	Labeling Effect on Appliance Preferences	30
6.4	“One Star” vs. “Four Star” Label.....	30
6.5	How Likely Are Consumers to Use the Label Information?.....	31
6.6	How Important Are Appliance Efficiency Labels?.....	32
7.	CONCLUSIONS	33
7.1	Factors Considered in the Purchase of Appliances.....	33
7.2	Market	33
7.3	Purchase Decisions.....	33
7.4	Power Consciousness	34
7.5	The Label.....	34
7.6	In Conclusion	34

APPENDIX A: AUXILIARY MATERIALS

- Questionnaire
- Labels Used As Stimuli
- SEC Grid
- Additional Demographics

List of Tables

Table 1 – Household Samples.....	11
Table 2 – Ownership of Refrigerators by Brand and City	13
Table 3 – Brand of Refrigerators by SEC.....	14
Table 4 – Most Important Factor - Unaided Response In Refrigerator Purchases	

Overall and By City	15
Table 5 – Very Important Factor - Aided Mention In Refrigerator Purchases Over All and By City.....	17
Table 6 – Ownership of Geysers By Brand and By City	18
Table 7 – Ownership of Geysers By SEC.....	19
Table 8 – Most Important Factor – Unaided Mention In Geyser Purchases By City.....	20
All Cities	20
Table 9 – Very Important Factor – Aided Mention In Geyser Purchases By City.....	21
All Cities	21
Table 10 – Ownership of ACs By City	22
Table 11 – Brands of ACs By City.....	23
Table 12 – Most Important Factor – Unaided Mention In Purchasing ACs By City	24
Table 13 – Very Important Factor – Aided Mention In Purchasing ACs By City	25
Table 14 – Decision-Maker.....	26
Table 15 – Important Sources.....	26
Table 16 – Power Consciousness.....	27
Table 17 – Pay More For Power Efficiency.....	28
Table 18 – Meaning of the Label (One Star)	29
Table 19 – Effectiveness of the Label (One Star)	30
Table 20 – One Star vs. No Label – Preference.....	30
Table 21 – Reasons for Preferring One Star vs. No Label.....	30
Table 22 – One Star vs. Four Star Label	31
Table 23 – Reasons for Preferring Four Stars.....	31
Table 24 – Likelihood of Using the Information.....	32
Table 25 – Reasons for Using the Information	32
Table 26 – Importance of Label	33
Table 27 – Percentage of Respondents Covered in SEC A, B, C	55

EXECUTIVE SUMMARY

OVERVIEW

In India, the penetration of appliances, such as refrigerators, geysers (hot water heaters), and air conditioners, is relatively low (only 23% of urban households have refrigerators, 6% have geysers, and 1% have air conditioners). However, several factors suggest opportunities in the Indian appliance market for increased power efficiency:

- Even with relatively low penetration rates, the appliance market is large; for instance, over 11 million urban households own refrigerators.
- Over the past decade, the demand for appliances such as refrigerators, air conditioners, and geysers has been steadily growing, as more consumers are able to afford them.
- Many appliances available to consumers are not likely to be power efficient, and many appliances are assembled and have no brand names. In addition, no efficiency standards are in place for either unbranded or branded appliances.
- As a whole, India faces electricity shortages, and consumers are often well aware of the inadequate power supply. Shortages are covered in the media and many consumers experience power outages and low power quality on a regular basis.

The question is, what interventions in the marketplace will encourage increased efficiency of the appliance stock? This study presents the results of baseline survey research conducted with 1,833 urban Indian households that currently own a refrigerator, geyser, and/or air conditioner. This sample size carries a + or – 2% margin of error in 95 samples out of 100.

The research was designed to:

- Describe the demographic characteristics of households that own appliances
- Create a general profile of current appliance brand preferences
- Explore appliance buying and replacement habits
- Better understand the factors consumers consider when they purchase new appliances, particularly refrigerators, geysers, and air conditioners, and particularly the role of power efficiency in appliance choices
- Help develop an effective power efficiency rating label for appliances

The International Resources Group (IRG), in conjunction with Sofres-Mode, and Indian market research firm, conducted this research with consumers in Delhi, Mumbai (Bombay), Chennai (Madras), Calcutta, Bangalore, and Ahmedabad during December 1997 and January 1998.

KEY FINDINGS

Characteristics of the Appliance Market

- Refrigerator ownership is much higher than that of geysers or air conditioners.
- The age of the appliance stock varies from across urban areas, but overall the stock of air conditioners is newer than refrigerators and geysers. Many respondents reported their refrigerators and geysers were at least ten years old. Less than 10% of participants indicated they were in the market for a new refrigerator, geyser, or air conditioner.
- The market for refrigerators is more uniform and national brands are the most popular. The top three brands (Godrej, Kelvinator, and Godrej-GE) claim 65 percent of the market. Markets for geysers and air conditioners are more localized and spread among branded and unbranded equipment.
- While brand name refrigerators are likely to be constructed according to some predictable standards, many air conditioners and geysers are “assembled” from component parts without meeting any particular standards of performance – power efficiency or otherwise.

Who Buys Appliances?

- Members of the middle and upper socio-economic classes purchase appliances. Respondents have higher incomes and more education than average.
- Purchasing decisions for major appliances are made by the main-earner (male) or jointly by the husband and wife. Much less frequently, the wife makes the purchase decision by herself.
- Most respondents indicated they were very or somewhat satisfied with their appliances, but there was always a small proportion ready to change or to buy new appliances.
- Among those who said they planned to buy a new refrigerator, geyser, or air conditioner in the near future, the most frequently cited motivations were: needing a bigger size, wanting the latest technology, wanting different features, and wanting an appliance “that worked.” Having a more power efficient model was seldom mentioned.
- Purchasers depend on both advertisements and input from friends and relatives when purchasing appliances. They tend to trust manufacturers and friends the most, followed by advertising and information from consumer groups. Salespeople are not well trusted.

Importance of Power Efficiency in Purchasing Decisions

- When asked which factor they consider most important to a purchase, refrigerator purchasers most frequently mentioned Brand, compressor type, and capacity, with Brand by far the most important factor. Price became more important when owners

were asked to name their top three most important factors. Power efficiency was rarely mentioned.

- When geyser owners were asked the same question, they most frequently answered Brand name, instant heating, and heating ability. Power efficiency was more frequently mentioned than price. Price, power efficiency, and safety became more important when owners were asked to name their top three most important factors.
- Air conditioner owners most frequently mentioned cooling ability, Brand, and type of compressor. As with geysers, power efficiency was mentioned more frequently than price, which became increasingly important when owners are asked for the top three factors influencing their purchases.
- While power efficiency is not one of the top factors consumers spontaneously mention, most respondents said they rated it (along with many other factors) as “very important.” Consumers indicated they were very concerned about saving power, reducing electricity costs, power cuts, and air pollution resulting from electricity consumption. Many consumers said they would be willing to pay slightly more for power efficient appliances if they could see a benefit in cost savings, more reliable power, or better air quality.

Potential Benefits of Appliance Labels

- When shown a sample appliance efficiency label, most consumers correctly understood it showed how power efficient the appliance was. They also reported they would prefer labeled over unlabeled appliances.
- When asked to compare a label with “one star” illuminated and one with “four stars” illuminated, they correctly chose the four star label, identifying it as having a higher efficiency label.
- Nearly 80% of consumers rated appliance efficiency labels as very important.

CONCLUSIONS

Although “power efficiency” is not currently a top-of-mind factor in appliance purchases, consumers, when prompted, rated it as very important. In addition, many consumers are well aware of power shortages and outages.

Marketing of concepts related to power efficiency and appliances, along with an effective appliance labeling campaign, can thus be effective in reaching consumers. These campaigns will be more effective if they can be tied to factors such as company name, compressor size, cooling ability, or other measures of performance that consumers already consider important. For instance, the support and involvement of key brands will greatly increase the chance of success, especially in the refrigerator market, which is very brand conscious.

Any appliance label/power efficiency efforts would also need to be carefully designed to consider the regional nature of geyser and air conditioner markets, and the variability in buying habits and attitudes in different urban areas. In addition, since word of mouth is such an important factor in appliance decisions, it will be important that actual performance correlates well with the labels and that initial reliance on the labels yields positive results for consumers.

1. INTRODUCTION AND METHODS

1.1 Study Background and Purposes

Over the past decade, the demand for appliances such as refrigerators, air conditioners, and geysers (hot water heaters) among Indian consumers has been steadily growing. While penetration of these appliances is still fairly low among all urban consumers (23% of households have refrigerators, while only 6% of households have geysers, and 1% have air conditioners), the number of units is notable (i.e., over 11 million refrigerators).

Increased purchases of appliances have led to a greater demand for electricity in a country already facing significant supply shortages. In addition, many appliances available to consumers are not likely to be energy efficient. While refrigerators usually carry brand names and are constructed according to some predictable standards, many air conditioners and geysers are “assembled” from component parts without meeting any particular standards of performance – energy efficiency or otherwise.

Thus, the appliance market in India presents opportunities for increased energy efficiency and increased awareness and knowledge about energy efficiency among Indian consumers. The question is, what interventions in the marketplace will help increase the efficiency of the appliance stock?

This report chronicles a first step in understanding how consumers view energy efficiency in purchasing appliances and whether they would find appliance efficiency labels useful. It describes the methods and results of survey research done with 1833 representative Indian households currently owning major appliances. This sample size carries a +/-2% margin of error in 95 samples out of 100, providing a highly reliable and rich source of information about appliance consumers. Fielding was conducted in December 1997 and January 1998.

The International Resources Group (IRG) collaborated with Sofres-Mode (Mode), an Indian market research company, to conduct this study as part of USAID’s EMCAT-DSM project in India. The research was designed to:

- Describe the demographic characteristics of households who own appliances
- Create a general profile of current appliance brand preferences
- Explore buying and replacement habits
- Better understand the factors consumers consider when they purchase new appliances, particularly refrigerators, geysers, and air conditioners
- Help develop an effective energy efficiency rating label for appliances

1.2 Consumers Represented In This Report

To represent the population of current owners and potential buyers of major appliances, households had to:

- Own a refrigerator, geyser, or air conditioner
- Pay an electric bill
- Live in an urban area
- Be classified in one of India's top three socio-economic categories (SECs A, B, and C), a system that considers both occupation and education of the main wage earner (see Attachment 1). SECs A, B, and C have higher incomes and education levels than the general population.

To represent urban households, the study was conducted in these major cities:

- Delhi
- Calcutta
- Mumbai (Bombay)
- Ahmedabad
- Chennai (Madras)
- Bangalore

Prior studies suggest both women and men in the households participate in, and may bring different perspectives to selecting and buying appliances. Thus, this research interviewed and represents both men and women decision-makers in households. Men tend to be the main wage earners while women are homemakers. Thus, men may be more involved in the financial aspects of the decisions, while women are more concerned about how appliances fit into running the household.

1.3 Sample Approach and Size

This sampling approach assumed that many households owning refrigerators (the appliance with the largest penetration) would also own geysers and air conditioners. Using this "nested" approach, the goal within each city was to represent 200 households with refrigerators; within those 200, it was assumed 150 would own geysers, and 75 would own air conditioners.

Using electoral rolls, random sampling methods that minimized sampling bias were used to identify consumers to be interviewed. This process did not achieve the targeted number of air conditioner (AC) owners; thus purposive sampling methods supplemented the random sample approach. As Table 1 below shows, the overall sample size was 1833 households, with sample sizes in each city exceeding the original 200 household goal. The rows below the overall sample show the number of households within the overall sample that owned geysers and air conditioners.

TABLE 1 – HOUSEHOLD SAMPLE SIZES

Appliances	Delhi	Calcutta	Mumbai	Ahmedabad	Chennai	Bangalore	TOTAL
Refrigerator owners (overall sample)	329	319	253	301	398	233	1833 (+/-2% error)
Geyser owners	217	154	186	184	177	149	1067
AC owners	80	54	81	73	70	31	389

In each household, either the main-earner or the homemaker was interviewed, using a systematic rule of selection. For example, in Delhi (around a starting point), in the first four households, the homemaker was interviewed and in the next four households, the main-earner was interviewed.

1.4 Questionnaire Development

To design the questionnaire, research reports and other materials describing the process and results of appliance standards and labeling programs elsewhere in Asia and internationally were reviewed. In addition, appliance advertisements and product literature in India were reviewed. Finally, appliance salespeople and consumers were informally polled about their views on energy efficiency and appliances. The final draft questionnaire was pre-tested in November 1997.

1.5 Fielding

The fieldwork was conducted between December 15, 1997, and January 8, 1998, in all cities simultaneously.

1.6 Interpretation of Tables

To analyze the data, overall frequencies were reviewed along with a wide range of cross tabulations of demographics with responses to questions. However, many demographic variables did not produce significant variations among respondents.

Thus, in this report, only a few variables have been selected for reporting, as follows:

- All (where the Base = Total Sample Size size)
- Cities (Delhi, Calcutta, Mumbai, Ahmedabad, Chennai, Bangalore)
- Socioeconomic classification (SEC) A, B, or C

Abbreviations used for denoting cities are:

- Delhi (Del)
- Calcutta (Cal)
- Mumbai (Mum)
- Ahmedabad (Ahm)
- Chennai (Chn)
- Bangalore (Blr)

Table percentages in this report were computed based upon the total number of respondents eligible to respond to each question. However, missing data (e.g., no answer) are not reported, so columns often do not total to 100%.

1.7 Organization of the Report

After the Executive Summary and this chapter, this report is organized into the following chapters:

- Chapter 2 – The Refrigerator Market
- Chapter 3 – The Geyser Market
- Chapter 4 – The Air Conditioner Market
- Chapter 5 – Buying Decisions
- Chapter 6 – The Role of Appliance Labels
- Chapter 7 – Conclusions and Recommendations

2. THE REFRIGERATOR MARKET

2.1 General Characteristics of the Refrigerator Market

2.1.1 Ownership

Consistent with sampling assumptions, refrigerators were the most commonly owned appliance in this study of major appliance owners (98% overall). Refrigerator ownership varied somewhat across cities (from 94% in Mumbai to 100% in Calcutta and Chennai).

Only 3% of refrigerator owners reported owning more than one refrigerator. In Calcutta, 9% of appliance owners with refrigerators reported owning at least two.

2.1.2 Age of Refrigerators

Overall, based upon respondent self-reports, about a third of refrigerators are newer (1-3 years = 30%), while about a third are middle aged (4-9 years = 36%), and about a third are older and perhaps nearing the end of their average lifetime (10+ years = 31%).

The age of refrigerators varied by city. Most notably, Ahmedabad has the oldest refrigerator stock with 43% being older and only 16% being newer. Chennai households have almost the reverse situation: 45% of refrigerators are newer and only 16% are 10

years old or older. In the other cities, the percent of newer refrigerators between 26 and 33 percent, and the range of older refrigerators was 27 to 42 percent.

2.1.3 Size

Based upon self-reports, the most common size of refrigerator was 165 liters (71%), while 3% were smaller (90 and 100 liters) and 19% were larger (220 and 310 liters primarily). When possible, interviewers verified the size; results of this verification are consistent with the self-reports of respondents.

2.1.4 Major Brands

According to survey responses, the penetration of major brands of refrigerators, across cities is:

TABLE 2 – OWNERSHIP OF REFRIGERATORS BY BRAND AND CITY
(%)

BRANDS	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Sample Size)	(1833)	(329)	(319)	(253)	(301)	(398)	(233)
Godrej	30	16	31	51	31	34	15
Kelvinator	25	26	32	18	37	23	13
Godrej-GE	10	22	3	1	2	6	27
Allwyn	7	5	12	7	2	7	12
Voltas	6	8	7	3	7	3	10
BPL	6	4	6	8	5	9	9
Videocon	5	3	3	7	4	6	6
Whirlpool	2	1	2	1	2	4	2
Godrej Cold Gold	2	-	2	-	1	6	2
Other	2	7	2	3	11	3	2
Can't recall	<1	<1	1	4	<1	<1	<1
None	2	7	1	0	<1	1	2

Across the six cities surveyed, the market leader is Godrej, closely followed by Kelvinator. However, brand choice varies significantly by city. For example, the ownership of Godrej refrigerators in Mumbai is 51%, but in Bangalore it is 15%. Similarly the ownership of Kelvinator refrigerators ranges from 37% in Ahmedabad to 13% in Bangalore. Godrej-GE is 27% in Bangalore, and a mere 1% in Mumbai.

As shown in the following table, brand choice varies somewhat across SEC groups, with SECs A and B more likely to have Godrej and Kelvinator than SEC C.

Table 3 – Brand of Refrigerators by SEC (%)

BRANDS	All SECs	SEC A	SEC B	SEC C
(Sample Size)	(1833)	(1140)	(504)	(189)
Godrej	30	31	28	23
Kelvinator	25	23	30	23
Godrej-GE	10	9	10	14
Allwyn	7	7	5	11
Voltas	6	5	7	11
BPL	6	8	5	3
Videocon	5	5	5	4
Whirlpool	2	2	2	3
Godrej Cold Gold	2	2	2	3
Other	2	4	2	4
Can't recall	<1	<1	<1	1
None	2	2	1	2

2.2 Motivations for Purchase

Most refrigerator owners (94% overall) indicated they were very satisfied or somewhat satisfied with their refrigerators. In all cities, at least 90% responded they were very satisfied or somewhat satisfied. Satisfaction (very to somewhat satisfied) did not vary much across socioeconomic classifications (93% in SEC A to 99% in SEC C).

When asked if they intended to buy a new refrigerator, 81% of refrigerator owners reported that they were very unlikely to somewhat unlikely to do so, while 7% overall reported they were very likely to do so. Owners in Ahmedabad most frequently indicated they were very likely to buy a new refrigerator with 12% of owners giving that response. Reasons for wanting a new refrigerator among those respondents saying they were very likely to buy one included: Wanting a larger refrigerator (27%)

- Wanting a refrigerator with the latest technology (27%)
 - Wanting a refrigerator with different features (12%)
 - Wanting a better working refrigerator (10%)
- Factors Considered in Purchasing Refrigerators

To assess factors considered when purchasing refrigerators, two types of questions were used. The first type - unaided response - asked respondents to spontaneously list the three most important factors they consider when buying a refrigerator. The second type of question - aided response - asked respondents to rate predetermined factors on a five-point scale from very important to very unimportant.

The following table shows the most important factor considered in purchasing refrigerators, when responses were unaided:

**TABLE 4 – MOST IMPORTANT FACTOR - UNAIDED RESPONSE
IN REFRIGERATOR PURCHASES
OVERALL AND BY CITY
(%)**

Factors	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
Brand Name or Reputation/ Company Name	26	30	28	27	17	34	17
Compressor	8	7	17	8	6	9	<1
Capacity	8	5	3	11	12	5	12
Frost free	7	8	10	6	9	4	7
Cooling Ability	5	5	8	3	5	6	4
Reliability / Durability	5	6	3	2	3	7	8
Price	5	3	6	5	3	6	5
Quality	5	4	2	6	4	5	10
Latest Technology	4	2	3	7	6	4	6
Physical Size	3	3	2	5	7	1	3
Power Efficiency	3	5	3	-	4	3	5
ISI Mack	2	8	<1	<1	0	0	0
Color	2	1	3	8	2	1	1
Working Ability	2	2	0		4	1	2
Other factors	10	6	9	8	14	12	16
No response	3	5	1	<1	3	2	2

Clearly, Brand Name was the single most important top-of-mind factor in buying decisions (26%), followed distantly by the type of Compressor (8%) and Capacity (8%). Factors did not vary by SEC, but the emphasis on brand did vary by city. Although it was always the most frequent response, more respondents in Chennai (34%), Delhi (30%), Calcutta (28%), and Mumbai (27%) cited brand as most important, compared to only 17% in Ahmedabad and Bangalore. Other findings include:

- When the first and second or first, second, and third most important factors are combined, Brand Name remains the most frequently given response.
- When the top two factors are combined, Price is mentioned as frequently (15%) as Compressor and Capacity.
- When the top three factors are considered, Price is mentioned more frequently than Compressor and Capacity.
- Only 3% mentioned power efficiency as their top consideration in refrigerator purchases.

The frequency of the Compressor responses may reflect marketing efforts that highlight the importance of compressors in refrigerators. In addition, compressors have been marketed and advertised as a stand-alone product. The importance of Capacity is consistent with respondent reasons for wanting to buy a new refrigerator in the near future.

Upon aiding, where a variety of factors were suggested to respondents, the relative importance of various factors changed markedly as shown in the table below. The importance of the refrigerator's Compressor (92% very important), its Cooling Ability (90%), Reliability/Durability (89%), Power Efficiency (87%), and having the ISI Mark (83%), all exceeded Brand Name (82%), which was barely ahead of Capacity (80%) and Frost Free (79%). Lowest on the "very important" ratings were Price (61%) and Physical Size (59%). Some variation surfaced by city, especially with the importance of the ISI mark (55% in Mumbai compared to 90% in Delhi and 94% in Chennai), the importance of brand (72% in Calcutta compared to 89% in Mumbai), and the importance of power efficiency (66% in Mumbai compared to 92% in Chennai).

**TABLE 5 – VERY IMPORTANT FACTOR - AIDED MENTION
IN REFRIGERATOR PURCHASES
OVERALL AND BY CITY
(% saying “Very Important”)**

Factors	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
Compressor	92	87	90	86	91	98	95
Cooling ability	90	87	92	86	86	93	97
Reliability / Durability	89	91	86	80	93	89	97
Power efficiency	87	87	89	66	89	92	95
ISI mark *	83	90	74	55	89	94	90
Brand name or Reputation	82	86	72	89	78	87	80
Capacity	80	84	78	75	83	74	92
Frost free	79	82	65	85	75	83	81
Price	61	66	69	51	48	59	74
Physical size	56	48	49	47	57	63	78

* ISI - Indian Standards Institution

3. THE GEYSER MARKET

3.1 General Characteristics of the Geyser Market

3.1.1 Ownership

Fifty-seven percent (57%) of respondents (n=1067) currently own a geyser, but this proportion varies significantly by city, from a low of 44% in Chennai to a high of 69% in Mumbai.

Of those that own geysers, 81% reported they owned one; 10% reported they owned two; and 3% reported they owned three. Geyser owners most frequently indicated they owned more than one geyser (33% of responses) in Bangalore. Compared to those in other cities, geyser owners in Bangalore were more likely to have more than one geyser (33%).

3.1.2 Age

When asked the age of their current main (largest) or main geyser, about a third (34%) reported having newer equipment (3 years old or less), about a third were four to 9 years old, and 23% of geyser owners responded that their main geyser was at least 10 years old. The age of geysers in households does appear to vary by city, with older geysers less likely to be found in Chennai and Delhi and newer geysers less likely to be found in Mumbai and Ahmedabad.

3.1.3 Size

The size of a household's main geyser varied. About a fifth of households (21%) have twenty-five-liter geysers, while 18% have one-liter geysers, and six-liter geysers account for 21%, 18%, and 12% (51% total) of current geyser ownership, respectively, with a variety of other sizes were also cited. Eight percent (8%) of geyser owners were unable to state the size of their geyser(s).

The reported size of geysers varies considerably from city to city. In Mumbai and Ahmedabad, one- and six-liter geysers are most popular, accounting for 64% and 60% of responses, respectively. In Delhi and Bangalore, 25-litre geysers are most popular, accounting for 41% and 31% of responses, respectively. Geyser owners in Calcutta and Chennai most frequently indicate they own 15-litre geysers.

3.1.4 Type

Geysers are available in both regular and instant models in India. Regular geysers keep water constantly at a set temperature. Instant geysers heat water on demand and tend to be the smaller varieties.

3.1.5 Brand

The following table shows which brands of geysers consumers own overall, and by city. Overall, no single brand holds a large share of the market, with Racold having the highest share (14%).

TABLE 6 – OWNERSHIP OF GEYSERS
BY BRAND AND BY CITY
(%)

BRANDS	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Sample Size)	(1067)	(217)	(154)	(186)	(184)	(177)	(149)
Racold	14	9	4	15	7	14	42
Superehot	11	-	5	8	46	4	5
Bajaj	10	11	19	14	8	6	1
Venus	10	3	31	1	-	28	1
Unbranded	8	17	1	18	-	2	7
Lexus	3	4	1	4	-	11	-
Crompton Greaves	2	2	5	-	1	2	-
Godrej-GE	2	6	1	-	1	1	1
Others	28	36	24	33	28	24	36
Can't Recall	5	4	5	8	3	7	6
None	4	9	3	3	5	3	-

The variation in brand penetration preference across cities is striking. Racold enjoys a penetration of 42% in Bangalore, and only 4% in Calcutta. Superehot is the highest in

Ahmedabad (46%), but accounts for less than 10% elsewhere. This pattern suggests that the geyser market is more regional or local than the refrigerator market. In addition, unlike refrigerators, unbranded geysers exist, particularly in Delhi and Mumbai.

Brand ownership also varies across socioeconomic classification, with unbranded most prominent in SEC C, as shown in the table below:

TABLE 7 – OWNERSHIP OF GEYSERS
BY SEC
(%)

BRANDS	All SECs	SEC A	SEC B	SEC C
(Sample Size)	(1067)	(791)	(219)	(57)
Racold	14	15	11	23
Sperhot	11	13	7	5
Bajaj	10	10	11	12
Venus	10	10	11	2
Unbranded	8	7	11	18
Lexus	3	4	3	2
Crompton Greaves	2	2	2	-
Godrej-GE	2	1	3	2
Others	28	29	26	34
Can't recall	5	5	5	11
None	4	3	7	5

3.2 Motivations for Purchasing Geysers

Most geyser owners (91% overall) indicated they were very satisfied or somewhat satisfied (very or somewhat) with their geysers. Geyser owners in Ahmedabad and Delhi were somewhat less likely to give a very or somewhat be satisfied response (83% and 87% respectively). In other cities, at least 90% of geyser owners indicated they were somewhat or very satisfied. Overall, only 3% of owners indicated they were very or somewhat dissatisfied.

When asked if they intended to buy a new geyser, 81% of geyser owners said they were very or somewhat unlikely to do so. Five percent (5%) reported they were very likely to buy new geysers with frequencies ranging from 3% in Bangalore to 9% in Delhi. Among those responding they were very likely to be purchasing a new geyser, 81% percent could give no reason why, contrasting sharply with potential refrigerator buyers who were better able to describe the changes they wanted. This contrasts with those planning to buy new refrigerators, who were better able to name reasons for their intention.

3.3 Factors Considered in Purchasing Geysers

When asked to name the most important factor considered in purchasing a new geyser, geyser owners spontaneously mentioned the following factors (see following table):

TABLE 8 – MOST IMPORTANT FACTOR – UNAIDED MENTION
IN GEYSER PURCHASES
BY CITY
(%)

Factors	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Sample Size)	(1067)	(217)	(154)	(186)	(184)	(177)	(149)
Brand name or Reputation/ Company name	24	21	31	32	21	30	11
Instant heating	12	12	14	4	11	10	21
Heating ability	11	8	8	12	5	18	13
Power efficiency	9	5	6	3	16	3	20
Safety features	8	2	7	10	14	6	9
Reliability / Durability	5	4	5	8	5	5	3
Capacity	4	5	6	1	3	5	7
Quality	4	3	1	9	2	3	6
ISI mark	3	15	-	-	1	1	1
Price	3	3	6	2	2	3	1
Latest Technology	3	3	-	4	6	1	5
Physical size	3	2	3	8	3	2	-
Other Factors	4	6	9	6	10	7	6
No Response	5	10	3	2	11	3	1

The factors most frequently mentioned are somewhat similar to those identified for refrigerators. As with refrigerators, Brand/company name is the most frequently mentioned single most important factor among all geyser owners is a very important consideration, followed by Instant heating and Heating ability. Overall, Power efficiency is more top-of-mind than for refrigerators. This factor is also most important is consistently high in all cities except for Bangalore where Instant heating, Heating ability, and Power efficiency were mentioned more frequently. These factors were the second and third most frequently cited purchasing factors overall for geysers. In the case of geysers, Power efficiency also appears to be more important (particularly so in Ahmedabad and Bangalore) than for refrigerators. The variations across SEC are marginal in general. An exception is Power efficiency, which is more frequently mentioned in SEC C.

When the first and second or first, second, and third most important factors are considered:

- Power efficiency becomes increasingly important and is equivalent or exceeds Instant heating and Heating ability
- Safety features and Price also increase in importance

Geyser owners tended to rate most factors as Very Important when specifically asked about each factor from a list of buying criteria (all ratings are above 80% Very Important except Price at 59%). Still, as with refrigerators, Brand importance dropped when respondents were reminded of other considerations.

TABLE 9 – VERY IMPORTANT FACTOR – AIDED MENTION
IN GEYSER PURCHASES
BY CITY
(% saying “Very Important”)

Factors	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
Reliability/ Durability	89	88	90	78	93	86	99
After-sales service	86	85	92	69	89	88	96
Power efficiency	87	89	92	62	92	97	95
Safety features	85	79	95	61	91	95	95
ISI mark	84	89	76	59	89	98	93
Instant heating	83	79	86	77	80	89	88
Heating ability	82	79	88	78	78	82	93
Brand name or Reputation	80	80	69	83	73	88	83
Price	59	65	67	43	40	69	77

4. THE AIR CONDITIONER MARKET

4.1 General Characteristics of the Air Conditioner (AC) Market

Twenty-one percent (21%) of respondents (n=389) reported they own an air conditioner (AC). Ownership ranged from 13% in Bangalore to 30% in Mumbai. Ownership of air conditioners also varies based on socioeconomic classification (SEC) with 29% of respondents in SEC A reporting they own air conditioners and only 3% of respondents in SEC C reporting they own these appliances.

Twenty-one percent (21%) of all AC owners reported owning more than one unit. Responses varied across cities with 39% of owners in Bangalore reporting they own more than one unit compared to only 13% in Mumbai and Ahmedabad.

4.1.1 Age

The stock of ACs appears to be substantially newer than refrigerators or geysers, probably indicating the relatively recent appearance of ACs in the marketplace. When asked the age of their ACs, most owners (52%) indicated their ACs were 4 years old or newer, while 18% reported their main AC was at least 10 years old. Most owners (52%) indicated their ACs were 4 years old or newer. Thus, the stock of ACs appears to be substantially newer than refrigerators or geysers.

4.1.2 Type

The AC market includes both branded and unbranded ACs. Unbranded (or local) ACs are assembled locally with each city having a proliferation of suppliers. (Usually, assembled ACs have well known, branded compressors). Unbranded units are distinctly cheaper than branded ones because they are not subject to high excise duty. Although there are a few brands of compressors that are visible in the market, Kirloskar compressors appear to monopolize the assembled AC market.

The ownership pattern of branded and unbranded ACs across cities is shown in the following table. While the majority of ACs are branded (56%), a large share are unbranded (35%).

TABLE 10 – OWNERSHIP OF ACs
BY CITY
(%)

BRANDS	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Sample Size)	(389)	(80)	(54)	(81)	(73)	(70)	(31)
Branded ACs	56	48	65	54	25	81	81
Assembled ACs	35	40	26	40	64	10	13

The prevalence of assembled ACs is low in the south; i.e. Chennai and Bangalore, but high in the north and west.

4.2 Brand

The market share preference of ACs by brand, among owners of branded ACs, across cities, is shown in the table below:

TABLE 11 – BRANDS OF ACs
BY CITY
(%)

BRANDS*	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Sample Size)	(217)	(38)	(35)	(44)	(18)	(57)	(25)
Voltas	17	8	40	11	-	21	4
Carrier	14	26	9	-	-	28	-
National	11	3	3	27	-	7	16
Amtrex	6	5	3	-	-	7	4
Videocon	5	-	-	5	-	11	-
Usha Shriram	7	8	3	14	-	7	-
Others	6	3	11	2	-	5	16

*Excludes unbranded units

Among branded ACs, Voltas, Carrier, and National major brands of ACs are the most popular, but the penetration of these brands appears by city (note: sample sizes are small within each city). Still, penetration of Voltas is as high as 40% in Calcutta and as low as 4% in Bangalore. Penetration of Carrier is as high as 28% in Chennai and as low as 9% in Calcutta. National is as high as 27% in Mumbai and as low as 3% in Delhi and Calcutta. Thus, similar to geysers, the AC market is fragmented with no clear brand leader across the cities and marketshares fluctuating markedly between cities. However, the AC market also has a much larger proportion of unbranded equipment.

4.3 Factors Motivating Purchasing ACs

Most AC owners (93% overall) indicated they were very or somewhat satisfied with their ACs. AC owners in Ahmedabad and Delhi were somewhat less likely to give very or somewhat satisfied ratings (86% in Delhi, 87% in Ahmedabad). In all other cities, at least 90% of owners indicated this level of satisfaction. Overall, only 2% of respondents said they were very or somewhat dissatisfied.

When asked if they intended to buy a new AC, 11% of geyser AC owners overall said they were very (6%) or somewhat (5%) unlikely to do so. Across cities, frequencies of those very likely to buy a new AC ranged from 2% in Calcutta to 10% in Ahmedabad to 89% in Mumbai and Chennai. Six percent (6%) reported they were very likely to purchase new ACs with frequencies ranging from 2% in Calcutta to 10% in Delhi and Ahmedabad.

Those responding that they were very likely to purchase a new AC cited reasons such as remodeling, wanting different features, or wanting new technology. (Note: Sample size limited the significance reliability of these answers.)

4.4 Factors Considered in Purchasing ACs

Cooling ability is the most widely acknowledged important factor for AC purchasers overall (29%). Some variations across cities for this factor are evident - it is the highest in Chennai (61%), and least mentioned in Delhi (9%). Brand name follows Cooling ability, also with some variation across cities. Given that a third of ACs are unbranded, Brand name is mostly likely a strong factor among those who have branded ACs. The most important spontaneously mentioned factors are shown in the table below:

TABLE 12 – MOST IMPORTANT FACTOR – UNAIDED MENTION
IN PURCHASING ACs
BY CITY
(%)

Factors	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Sample Size)	(389)	(80)	(54)	(81)	(73)	(70)	(31)
Cooling ability	29	9	39	23	32	61	29
Brand name or Reputation / Company name	24	34	26	19	15	32	6
Compressor	11	10	11	23	10	4	-
Power efficiency	6	9	2	7	5	3	10
Latest technology	3	6	4	1	5	1	-
Reliability / Durability	3	1	2	5	1	4	3
Price	4	6	6	2	3	3	6
Physical Size	3	1	-	9	3	-	-
ISI Mark	3	10	2	1	-	-	-
Quality	3	4	4	1	1	3	3
Other Factors	7	4	2	4	13	11	9
None	4	5	4	2	11	-	-

When the first and second or first, second, and third most important factors are considered:

- Cooling Ability remains the most frequently cited factor and Brand/ Company name remains the next most frequently cited factor.
- Price becomes increasingly cited as a factor.

When respondents were asked to rate a series of specific factors, post aiding, the pattern is similar to the other two appliances. We again see that many factors are often rated as highly important as shown in the table below:

TABLE 13 – VERY IMPORTANT FACTOR – AIDED MENTION
IN PURCHASING ACs
BY CITY
(% saying Very Important)

Factors	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
Compressor	89	84	93	78	93	97	97
Cooling ability	88	89	93	78	95	100	87
Reliability / Durability	87	90	89	74	92	89	97
Power efficiency	86	83	87	70	89	99	94
After-sales service	84	69	93	73	93	90	97
Capacity	83	89	87	72	89	79	87
Safety features	81	83	85	57	86	93	97
Latest technology	80	89	74	60	79	93	94
Brand name or Reputation	78	88	67	88	56	84	87
Price	58	71	65	33	49	65	81

5. PURCHASE DECISION PROCESS

5.1 Decision Maker

Overall, purchase decisions are most frequently made by men alone, or jointly by women and men. Women infrequently make major appliance purchase decisions on their own. This pattern is not uniform across cities, however. Twenty-six percent (26%) of purchase decisions in Calcutta are made solely by women. In Delhi and Bangalore, the percent of sole female purchases is less than 10%.

TABLE 14 – DECISION-MAKER
(%)

Decision Maker	All	Del	Cal	Mum	Ahm	Chn	Blr
(Total questions)	(1864)	(331)	(320)	(268)	(304)	(400)	(241)
Male	41	37	44	34	54	41	37
Female	13	6	26	16	10	12	8
Both equally / Joint	45	56	30	50	34	47	55

The role of men as the sole decision-maker seems to dominate in Ahmedabad. Across SEC groups, the only notable variation is that joint decision making is higher in SEC A (46%) and SEC B (45%) and much less so in SEC C (36%).

5.2 Influences

The key main sources of information about appliances are Friends/relatives, and Advertisements as shown below. This suggests that word of mouth does play a strong role in the purchase of appliances.

TABLE 15 – IMPORTANT SOURCES
(%)

Source	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Total questions)	(1864)	(331)	(320)	(268)	(304)	(400)	(241)
Friends / Relatives	42	48	33	43	62	31	37
Advertisements	37	36	33	37	50	26	49
Manufacturers	15	7	11	12	14	32	5
Consumer Guides	8	5	14	6	4	13	2
Salesperson	7	3	6	4	23	5	3

When asked how much they trust various sources of information, about 50% of respondents responded they trust manufacturers and friends/relatives “very much.” About 25-30% responded they trusted advertising and consumer groups “very much.” Only 10%

responded they trusted sales people “very much,” with 20% indicating they distrusted salespeople “somewhat” or “very much.”

5.3 Sensitivity About Issues Related To Power

Consumer attitudes about several issues related to power were measured on a five-point scale with very concerned equal to 5 and very unconcerned equal to 1. The results overall and across cities is presented below, both in terms of the percent of respondents saying very concerned and in terms of Mean scores:

TABLE 16 – POWER CONSCIOUSNESS
 (% saying Very Concerned and
 Mean scores where 5 = Very Concerned; 1= Very Unconcerned)

Power Issue	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Total questions)	(1864)	(331)	(320)	(268)	(304)	(400)	(241)
Saving electric power at home	88 {4.9}	95 {4.9}	82 {4.8}	88 {4.9}	81 {4.7}	90 {4.9}	95 {4.9}
Power cuts	66 {4.3}	76 {4.7}	79 {4.8}	81 {4.8}	2 {1.9}	75 {4.6}	88 {4.8}
Cost of your electricity bills	80 {4.7}	82 {4.8}	85 {4.8}	55 {4.5}	73 {4.6}	90 {4.9}	93 {4.9}
Air pollution	64 {4.4}	79 {4.7}	78 {4.8}	26 {3.7}	46 {3.8}	79 {4.8}	68 {4.4}

Saving power is frequently expressed as an area of high concern with relatively little variation across the cities studied. Concern about Cost of electricity bills follows a similar pattern, except that in Mumbai, the concern with bills is far less widespread. This could relate to lower tariffs in Mumbai.

Power cuts appear unimportant in Ahmedabad in sharp contrast to other cities. The reasons for this disparity are unknown, but need to be checked. Air pollution is a high concern area in all cities except Mumbai and Ahmedabad. In Mumbai, the reason may relate to sea breezes, which disperse air pollution.

5.4 Willingness To Pay More For Power Efficient Appliances

To help assess their willingness to pay for more energy efficient appliances, respondents were asked three conditioned questions, e.g.:

Table 17 – Pay More For Power Efficiency
(% saying “Yes”)

Question	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Total questions)	(1864)	(331)	(320)	(268)	(304)	(400)	(241)
Save you enough money on your electric bill to pay you back the extra cost within five years?	76	66	76	76	74	78	91
Help reduce power cuts by decreasing the demand of power?	72	65	84	56	77	71	82
Help reduce air pollution by reducing the demand of power and the need to build new power plants?	64	63	78	23	73	69	69

The large majority of respondents said they would pay more for an appliance if the extra costs were repaid with savings on their bills within five years. Willingness to “invest” in efficient appliances varied by city, with 91% of respondents in Bangalore saying they would pay more for such appliances, compared to only 66% of respondents in Delhi.

Many (72%) respondents indicated they would pay more for energy efficient appliances if it helped reduce power cuts (outages). Over 80% of Calcutta and Bangalore respondents said “yes” under this condition, but only 56% responded positively in Mumbai.

Sixty-four percent (64%) of respondents indicated they would pay more for energy efficient appliances if it reduced air pollution. The percentage willing to pay more under this scenario was notable lower in Mumbai (23%) and higher in Calcutta and Ahmedabad (78% and 73%, respectively). These differences probably reflect the differences in the level of air pollution in these cities.

6. THE ROLE OF APPLIANCE LABELS

To test the effectiveness of one label concept, respondents were shown two labels, each of which included an arc of 5 stars at the top (see Appendix A: Questionnaire and Auxiliary Materials). The labels were identical except that in one label, only one of the five stars was filled in or “illuminated” and in the second label, four of the five stars were illuminated. Both labels included the phrase “More Stars/More Savings” beneath the arc of stars. The body of each label read “Star Rating for Power Savings” and listed the number of power units an appliance with that rating would use. The label with more illuminated stars was intended to convey the meaning that the appliance had greater power efficiency.

6.1 Meaning of the Star Label

Respondents were first shown the label with one illuminated star and were asked to describe what the label meant to them. Responses are shown in the table below:

TABLE 18 – MEANING OF THE LABEL (ONE STAR)
(%)

Response	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Total Questions)	(1864)	(331)	(320)	(268)	(304)	(400)	(241)
Power savings rating	79	89	93	92	69	62	79
Use this label to compare different models of power use	5	9	3	8	4	5	2

Most respondents clearly understood the label provided a power savings rating, although few spontaneously mentioned the label could be used to compare different models.

6.2 Effectiveness of the Label

The effectiveness of the label in conveying the power efficiency of an appliance was checked using a five-point scale from very effective to very ineffective. The percent saying “very effective,” along with the mean scores, are given in the table below.

Table 19 – Effectiveness of the Label (One Star)
(% and Mean Scores)

Response	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Total questions)	(1864)	(331)	(320)	(268)	(304)	(400)	(241)
Very Effective	70	72	67	79	71	67	69
Somewhat Effective	22	24	27	18	16	24	22
Mean Score (5=Very effective, 1=Very ineffective)	4.6	4.7	4.5	4.7	4.6	4.7	4.6

According to consumers, this label is very effective in communicating the intended message of power efficiency. This holds true across all cities. Labeling Effect on Appliance Preferences.

When asked if they preferred a “one star” label to “no label,” most preferred a “one star” label.

Table 20 – One Star vs. No Label – Preference (%)

Preference	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Total questions)	(1864)	(331)	(320)	(268)	(304)	(400)	(241)
One star label	85	93	93	85	76	83	77
No label	9	3	3	3	16	13	18

The reasons most frequently cited for this preference related to power savings as shown in the table below. (The sample size in the table below is reduced to those who expressed a preference for the “one star” label over “no label”).

TABLE 21 – REASONS FOR PREFERRING ONE STAR VS NO LABEL
(%)

Response	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Sample Size)	(1579)	(307)	(298)	(229)	(230)	(330)	(185)
Will consume less power / ratings of electricity saved / Ratings of electricity used	84	93	92	85	67	73	91

6.3 “One Star” vs. “Four Star” Label

The hypothesis that appliances with a “four star” label would be preferred to those with a “one star” label is confirmed here with reasonable confidence. When respondents were asked to compare a label with “one (illuminated) star” to a label with “four (illuminated) stars,” they distinctly preferred the four star label. This is consistent with consumer

experience with hotel star ratings and even military ratings (5 star hotels or 5 star generals). This finding was consistent across all cities as shown in the table below:

TABLE 22 – ONE STAR VS. FOUR STAR LABEL
(%)

Preference	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Total questions)	(1864)	(331)	(320)	(268)	(304)	(400)	(241)
Four stars	87	93	90	93	82	81	87
One star	5	3	6	4	8	3	4

The reasons given for preferring the four star label show respondents clearly understood the concept (note: Only those preferring the four star label are represented in this table). Essentially, the greater the number of colored stars, the better the appliance is, and, in this context, the greater the energy efficiency.

TABLE 23 – REASONS FOR PREFERRING FOUR STARS
(%)

Reason	All Cities	Del	Cal	Mu m	Ahm	Chn	Blr
(Sample Size)	(1625)	(307)	(287)	(250)	(249)	(323)	(209)
Four stars means more power saved / It saves electricity / It would use less electricity	94	96	97	98	90	87	98

6.4 How Likely Are Consumers to Use the Label Information?

Most consumers indicated they would be likely to use the information on the label to help them in their purchase decision process, as shown in the table below.

TABLE 24 – LIKELIHOOD OF USING THE INFORMATION
(%)

Response	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Total questions)	(1864)	(331)	(320)	(268)	(304)	(400)	(241)
Very likely	70	70	67	79	71	64	73
Somewhat likely	21	23	26	15	16	25	20
Mean Score	4.6	4.7	4.6	4.7	4.6	4.6	4.6

When asked why they would use the information, there are noticeable variations across cities. For example, “gives information on power saved” is the highest in Calcutta. On the other hand, in Chennai, the most important reason is that the label facilitates easy identification of power efficient appliances.

TABLE 25 – REASONS FOR USING THE INFORMATION
(%)

Reason	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Sample Size)	(1698)	(308)	(296)	(251)	(263)	(358)	(222)
Gives information about power saved	44	56	77	48	30	16	39
Gives information about power consumption	21	18	13	45	26	9	21
It will tell us about the money saved	14	14	26	12	20	3	9
It is a good product	11	14	6	3	19	6	18
It is easy to identify (the power efficient appliance)	8	-	-	-	-	37	-
It will consume less power	6	2	6	7	5	2	23

6.5 How Important Are Appliance Efficiency Labels?

The importance of a power efficiency label for appliances was gauged using a five-point scale ranging -from very important to very unimportant. Respondents strongly supported the importance of such labels as shown in the table below:

TABLE 26 – IMPORTANCE OF LABEL
(%)

Response	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Total questions)	(1864)	(331)	(320)	(268)	(304)	(400)	(241)
Very important	79	88	78	82	80	67	79
Somewhat important	16	10	19	14	12	24	14

7. CONCLUSIONS

This section highlights several key findings from the study.

7.1 Factors Considered in the Purchase of Appliances

Currently, “power efficiency” is not a salient factor to consumers when they purchase the appliances studied in this survey. When prompted however, consumers rate it as very important. The findings suggest power efficiency can be made more relevant and immediate to consumers; however, the mechanisms for doing so still need to be determined.

7.2 Market

The market for refrigerators appears to be the most uniform across the cities studied. Markets for geysers and air conditioners are more localized and these appliances are less likely to be branded. If “power efficiency” can be effectively linked to brand name, compressor size, cooling ability, or other measures of performance that consumers felt were important, then buying habits may be able to be influenced.

7.3 Purchase Decisions

The norm for buying appliances is either joint decision making (with both the husband and wife), or by the husband independently. This implies that marketing and communication need to include both target groups.

Word of mouth (friends/relatives) in an important influence, in addition to advertising.

During the initial stage of introduction of the a label concept, mass media advertising would address the entire canvas of consumers - potential buyers as well as potential word of mouth influencers. However, once consumers choose appliances with efficiency labels, any unsatisfactory experience could lead to adverse word of mouth, which might have a negative impact on the credibility of the label concept.

Therefore, it will be imperative to ensure that the labeled appliances are truly power efficient and to address consumers concerns as they arise.

7.4 Power Consciousness

Saving electricity is a major concern for most consumers as are high bills. These messages will be useful in promoting appliance efficiency labels. While air pollution is somewhat lower in the hierarchy of concerns, it also will be an effective message when connected to power efficiency, especially in those areas that experience more pollution.

The acceptability of paying more for power efficient appliances because they will repay the investment in the long run is fairly high (especially so in Bangalore). In cities where power conscious is higher, such as Bangalore, marketing appliance efficiency labels should be easier.

7.5 The Label

Consumers understand the label rates power savings.

A label with one star illuminated is preferred to having no label at all. A star label signifies the power efficiency of an appliance has been rated.

Consumers perceive that the more the number of illuminated stars, the better the power savings. Hence, the label with four illuminated stars is preferred over the label with one illuminated star.

Consumers thought the label was effective in communicating power efficiency and reported they would be very likely to use the information in deciding which appliances to purchase.

7.6 In Conclusion

Based upon the results of this survey, a “felt need” for appliance efficiency labels can be developed among consumers. However, the road to developing awareness, acceptance, and use of an efficiency label is steep, both in marketing and technical terms. Apart from effective communication, the issue of increased costs for efficient appliances will also have to be addressed. Consumers need to be able to make trade-offs between the expected benefits of efficiency and any extra price. While the notion of a premium is acceptable to many consumers in the abstract, it would need to be well supported in the marketplace.

APPENDIX A:
AUXILIARY MATERIALS

- Questionnaire
- Labels Used as Stimuli
 - SEC Grid
- Additional Demographics

EMCAT/DSM

Appliance Labeling End-Use Consumer Survey Questionnaire

(12.11.97)

13113 Label

Draft # 1

8.11.1997

Proj : Label	SPNo : ___ C No : ___	HW : 1 ME : 2	Eligibility Qre	Owens : Refrigerator : 1 Geyser : 2 AC : 3	Centers : Delhi :1 Calcutta :2 Mumbai :3 Ahmedabad :4 Chennai : 5 Bangalore :6	MODE 13101 Oct '97
-----------------	--------------------------	------------------	--------------------	---	--	--------------------------

Name of respondent: _____

Address : (Res) _____

Phone ® _____ Phone (o) _____

D D M M Y Y

FIELD CONTROL INFORMATION	DATE OF INTERVIEW						
FO/FE CODE	TEAM CODE	SUPV CODE	INTV CODE	CHKD CODE			
ACCOMPANIED CALL	YES : 1 NO : 2	BY CODE	SIGN				
SPOT/BACK CHECK	YES : 1 NO : 2	BY CODE	SIGN				
SCRUTINY : FIELD	YES : 1 NO : 2	BY CODE	SIGN				
ANALYSIS OBSERVATION	EXTENT OF PROBLEM	NO/MINOR : 1 MILD : 2 SEVERE : 3					
SCRUTINY ANALYSIS	YES : 1 NO : 2	BY :					

CONTACT HOUSEWIFE/ MAIN EARNER AS PER QUOTA

Section 1: Introduction and Screening

INTRODUCE SELF.

Namaste, I am _____ from MODE Research. We do surveys on various products like soaps and shampoos to cinema and food. Currently we are doing a survey in this area. I would be grateful if you could spare about 20 to 25 minutes of your time.

Q1. Can you please tell me, do you or anybody in your family work for _____
(READ OUT ONE BY ONE)

- An advertising agency : 1
- A market research agency : 2
- A company dealing in electrical goods : 3
- None of these : 4 - (DO NOT READ OUT)

CONTINUE IF '4' CODED, ELSE TERMINATE

Q2. Now I will read out the names of a few items, as I read out please tell me whether you currently have that item in your household or not. Do you have _____
(READ OUT THE NAMES OF THE ITEMS BELOW ONE BY ONE AND CIRCLE CODES) ?

- Scooter : 1
- Mixer Grinder : 2
- TV : 3
- Refrigerator : 4
- Geyser : 5
- Cooler/desert cooler : 6
- AC : 7
- Room heater : 8

CONTINUE IF '4' / '5' / '7' CODED, ELSE TERMINATE. NO CLASSIFICATION.

Q3a. I would now like to ask you about the person who is the main earner of your household. By main earner, I mean the person who makes the maximum contribution to the household income. He/she may or may not be staying in this household.

What is his/her occupation? IF RETIRED: What was his/her occupation before retirement?

- Unskilled worker : 1
- Skilled worker : 2
- Petty trader : 3
- Shop owner : 4
- Businessman/ Industrialist : 5
- With no employees : 5
- With 1-9 employees : 6

With 10+ employees	:	7
Self employed professional	:	8
Clerical/ Sales	:	9
Supervisory	:	A
Officer/ Exec - Jr.	:	B
Officer/ Exec - Sr.	:	C

3b. And what is the highest level to which he/she has studied?

Illiterate	:	1
School up to 4 years	:	2
School up to 5-9 years	:	3
Matric/SSC	:	4
Attended college but not graduate	:	5
Graduate/ PG General	:	6
Graduate/ PG Professional	:	7

Q3c. SEC _____ (TO BE ENTERED FROM Q3a AND Q3b, FROM SEC GRID)

- FOR `REFRIGERATOR/ GEYSER' INTERVIEWS CONTINUE IF RESPONDENT BELONGS TO SEC A/ B/ C
- FOR `AC' INTERVIEWS CONTINUE ONLY IF THE RESPONDENT BELONGS TO SEC A/ B

Q4a. Today's survey is related to your electric appliances and such other matters. A general question about electricity/power use in your household. Please tell me whether you get your electricity bills every 2 months, or less often?

Yes, every 2 months	:	1
No, less often	:	2
No bill / no connection	:	3 - TERMINATE, RETAIN ELIGIBILITY

QRE

IF DOES NOT GET ELECTRICITY BILL, OR NOT LEGAL CONNECTION - TERMINATE, BUT RETAIN ELIGIBILITY.

Q4b. Can you please tell me, approximately, what the bill amount usually comes to?
RECORD IN Rs. BELOW.

Rs.

--	--	--	--

**** IMPORTANT ****

GO TO THE DETAILED QUESTIONNAIRE ONLY IF :

- **THE RESPONDENT IS A HOUSEWIFE OR MAIN EARNER**
- **DOES NOT WORK IN MARKET RESEARCH/ AD AGENCY/ ELECTRICAL GOODS COMPANY**
- **OWNS REFRIGERATOR/ GEYSER/ AC**
- **BELONGS TO SEC A/ B/ C - FOR`REFRIGERATOR/ GEYSER' INTERVIEW**
- **BELONGS TO SEC A/ B - FOR `AC' INTERVIEW**
- **IF GETS AND PAYS ELECTRICITY BILLS**

Section 1: Refrigerators

First I'd like to ask you some questions, please, about your refrigerator.

Q5. How many refrigerators do you have in your home?

Q6. How many years old is your (largest or main) refrigerator?

 years

Q7. How satisfied are you with your (largest or main) refrigerator? Would you say you are . .

- Very satisfied : 1
- Somewhat Satisfied : 2
- Neither Satisfied nor Dissatisfied : 3
- Somewhat Dissatisfied : 4
- Very Dissatisfied : 5
- Can't Say/No Answer : 6

Q8. How likely are you to buy a new refrigerator in the next year?

- Very likely : 1
- Somewhat likely : 2
- Neither likely nor unlikely : 3
- Somewhat unlikely : 4
- Very unlikely : 5
- Can't say/no answer : 6

7.6.1 IF VERY LIKELY, CONTINUE TO Q9a and 9b; ELSE SKIP TO Q10

Q9a. Have you already been out looking in stores, talking with people, or reading information about refrigerators you might want to buy?

- Yes : 1
- No : 2

Q9b. Why will you buy a new refrigerator?

- Current one not working well enough: 1
- Current one not big enough : 2
- Remodeling : 3
- Want different features (size, etc) : 4
- Other _____ : 5

Can't say/no answer : 6

Q10. Now, imagine you were going to go out and buy a new refrigerator. Please tell me, what are the three most important things you look for when buying a refrigerator?

Most Important Factor	
Second Factor	
Third Factor	

Q11. Now please rate each of these factors, in terms of importance, when you buy a new refrigerator. HAND CARD TO RESPONDENT AND HAVE THEM FILL OUT

	Very Important	Somewhat Important	Neither Important/ Unimportant	Somewhat Unimportant	Very Unimportant	Can't say
Brand name or reputation	1	2	3	4	5	6
Reliability or durability	1	2	3	4	5	6
Safety features	1	2	3	4	5	6
Price	1	2	3	4	5	6
Appearance	1	2	3	4	5	6
Special features	1	2	3	4	5	6
Capacity	1	2	3	4	5	6
Power efficiency	1	2	3	4	5	6
Dealer's reputation	1	2	3	4	5	6
Physical size	1	2	3	4	5	6
Warranty or guarantee	1	2	3	4	5	6
Payment options or installments	1	2	3	4	5	6
Cooling ability	1	2	3	4	5	6
ISI mark	1	2	3	4	5	6

Q12. Can you tell me the brand of your (largest, main) refrigerator?

		<u>Respondent</u>	<u>Observation</u>
Allwyn	:	1	1
BPL	:	2	2
Gojev/GE	:	3	3
Kelvinator	:	4	4
Samsung	:	5	5
Videocon	:	6	6
Voltas	:	7	7
Whirlpool	:	8	8

No brand	:	9	9
Other _____			
Can't Recall Brand	:	99	99 – Could not observe
Q13. Can you tell me the size of that refrigerator?			
		<u>Respondent</u>	<u>Observation</u>
165 litre	:	1	1
220 litre	:	2	2
310 litre	:	3	3
Other _____			
Can't Recall Size	:	99	99 – Could not observe

NEXT, ASK TO SEE THE REFRIGERATOR

AFTER SEEING THE REFRIGERATOR, MARK DOWN THE BRAND AND SIZE

7.6.1.1 Section 3: Geysers

Now I'd like to talk with you about the geysers you have.

Q14. How many geysers do you have in your home?

IF MORE THAN ONE GEYSER, GO TO 14A; ELSE, SKIP TO Q15

14a. How many are Instant and how many are Regular geysers?

	Number Instant
	Number Regular

Q15. How many years old is your (SAY LARGEST, IF MORE THAN ONE) geyser?

 years

Q16. How satisfied are you with your (largest) geyser? Would you say you are . . .

Very satisfied	:	1
Somewhat Satisfied	:	2
Neither Satisfied nor Dissatisfied	:	3
Somewhat Dissatisfied	:	4
Very Dissatisfied	:	5
Can't Say/No Answer	:	6

Q17. How likely are you to buy a new geysers in the next year?

Very likely	:	1
Somewhat likely	:	2
Neither likely nor unlikely	:	3
Somewhat unlikely	:	4
Very unlikely	:	5
Can't say/no answer	:	6

7.6.2 IF VERY LIKELY, CONTINUE TO Q18a and 18b; ELSE SKIP TO Q19

Q18a. Have you already been out looking in stores, talking with people, or reading information about geysers you might want to buy?

Yes	:	1
No	:	2

Q18b. Why will you buy a new geysers?

Current one not working well enough:	1	
Current one not big enough	:	2
Remodeling	:	3
Want different features (size, etc)	:	4
Other _____	:	5
_____	:	6
Can't say/no answer	:	6

Q19. Now, imagine you were going to go out and buy a new geysers. Please tell me, what are the three most important things you look for when buying a geysers?

Most Important Factor	
Second Factor	
Third Factor	

Q20. Now please rate each of these factors, in terms of importance, when you buy a new geyser. HAND CARD TO RESPONDENT AND HAVE THEM FILL OUT

	Very Important	Somewhat Important	Neither Important or Unimportant	Somewhat Unimportant	Very Unimportant	Can't say
Brand name or reputation	1	2	3	4	5	6
Reliability/durability	1	2	3	4	5	6
Safety features	1	2	3	4	5	6
Price	1	2	3	4	5	6
Appearance	1	2	3	4	5	6
Special features	1	2	3	4	5	6
Capacity	1	2	3	4	5	6
Power efficiency	1	2	3	4	5	6
Dealer's reputation	1	2	3	4	5	6
Physical size	1	2	3	4	5	6
Warranty or guarantee	1	2	3	4	5	6
Payment options or installments	1	2	3	4	5	6
Heating ability	1	2	3	4	5	6
ISI mark	1	2	3	4	5	6

Q21. Can you tell me the brand of your (largest) geyser?

	<u>Respondent</u>	<u>Observation</u>
Bajaj	1	1
Gojev/GE	2	2
Lexus	3	3
No Brand	4	4
Other _____		
Can't recall	99	99

Q22. Can you tell me the size of that geyser?

	<u>Respondent</u>	<u>Observation</u>
6 litres	1	1
10 litres	2	2
15 litres	3	3
25 litres	4	4
35 litres	5	5
50 litres	6	6
Other _____		
Can't recall	99	99

NEXT, ASK TO SEE THE (Largest) GEYSER
AFTER SEEING IT, MARK DOWN THE BRAND AND SIZE

7.6.2.1.1 Section 4: Air Conditioners

Next I'd like to talk with you about the air conditioner(s) in your home.

Q23. How many air conditioners do you have in your home?

7.6.2.1.1.1 IF MORE THAN ONE UNIT, GO TO Q23A; ELSE, SKIP TO Q 24

Q23a: How many are window units and how many are split units (where the compressor is on the roof or elsewhere)?

	Number window units
	Number split units

Q24. How many years old is your (most important) air conditioner?

 years

Q25. How satisfied are you with that air conditioner? Would you say you are . . .

Very satisfied	:	1
Somewhat Satisfied	:	2
Neither Satisfied nor Dissatisfied	:	3
Somewhat Dissatisfied	:	4
Very Dissatisfied	:	5
Can't Say/No Answer	:	6

Q26. How likely are you to buy a new air conditioner in the next year?

- Very likely : 1
- Somewhat likely : 2
- Neither likely nor unlikely : 3
- Somewhat unlikely : 4
- Very unlikely : 5
- Can't say/no answer : 6

7.6.3 IF VERY LIKELY, CONTINUE TO Q27a and 27b; ELSE SKIP TO Q28

Q27a. Have you already been out looking in stores, talking with people, or reading information about air conditioners you might want to buy?

- Yes : 1
- No : 2

Q27b. Why will you buy a new air conditioner?

- Current one not working well enough: 1
- Current one not big enough : 2
- Remodeling : 3
- Want different features (size, etc) : 4
- Other _____ : 5
- Can't say/no answer : 6

Q28. Now, imagine you were going to go out and buy a new air conditioner. Please tell me, what are the three most important things you look for when buying one?

Most Important Factor	
Second Factor	
Third Factor	

Q29. Now please rate each of these factors, in terms of importance, when you buy a new air conditioner. **HAND CARD TO RESPONDENT AND HAVE THEM FILL OUT**

	Very Important	Somewhat Important	Neither Important/ Unimportant	Somewhat Unimportant	Very Unimportant	Can't say
Brand name or reputation	1	2	3	4	5	6
Reliability or durability	1	2	3	4	5	6
Safety features	1	2	3	4	5	6
Price	1	2	3	4	5	6
Appearance	1	2	3	4	5	6
Special features	1	2	3	4	5	6
Capacity	1	2	3	4	5	6
Power efficiency	1	2	3	4	5	6
Dealer's reputation	1	2	3	4	5	6
Physical size	1	2	3	4	5	6
Warranty or guarantee	1	2	3	4	5	6
Payment options or installments	1	2	3	4	5	6
Cooling ability	1	2	3	4	5	6
ISI mark	1	2	3	4	5	6

Q30. Can you tell me the brand of your (most important) air conditioner?

	<u>Respondent</u>	<u>Observation</u>
Carrier	1	1
Citizen	2	2
Hitachi	3	3
Mitsubishi	4	4
Videocon	5	5
No brand	6	6
Other _____		_____
Can't recall	99	99

NEXT, ASK TO SEE THE (most important) AIR CONDITIONER

AFTER SEEING IT, MARK DOWN THE BRAND

7.6.3.1.1

7.6.3.1.2 Section 5: Buying Decisions

Let's talk for a few minutes how you decide to buy appliances in your household.

Q31. In general, who has the primary responsibility for deciding which appliances to buy?

Main wage earner : 1
 Housewife : 2
 Both equally : 3

Q32. Who usually goes to the stores and looks at various models of appliances?

Main wage earner : 1
 Housewife : 2
 Both equally : 3

Q33. What is your most important source of information when you buy appliances?

Salespeople : 1
 Manufacturers : 2
 Friends/relatives : 3
 Advertising : 4
 Consumer guides/groups : 5
 Other _____ : 6
 Can't say : 7

Q34. How much do you trust each of these sources of information when you buy appliances?

	Trust very much	Trust somewhat	Neither trust nor distrust	Distrust Somewhat	Distrust very much	Can't say
Salespeople	1	2	3	4	5	6
Manufacturers	1	2	3	4	5	6
Friends/relatives	1	2	3	4	5	6
Advertising	1	2	3	4	5	6
Consumer groups	1	2	3	4	5	6

Q35. In general, how concerned are you about the each of the following items:

8.	9. Very Concerned	10. Somewhat Concerned	11. Neither concern/unconcern	12. Somewhat unconcerned	13. Very unconcerned	14. Can't say
15. Saving electric power at home	16. 1	17. 2	18. 3	19. 4	20. 5	21. 6
22. Power outages	23. 1	24. 2	25. 3	26. 4	27. 5	28. 6
29. Cost of your electricity bill	30. 1	31. 2	32. 3	33. 4	34. 5	35. 6
36. Air pollution	37. 1	38. 2	39. 3	40. 4	41. 5	42. 6

Q36. Would you pay a little more for a more power efficient appliance if you knew it would . . .

Save you enough money on your electric bill to pay you back the extra cost within five years?	1 Yes	2 Maybe	3 No	4 Can't say
Help reduce power outages by decreasing the demand for power	1 Yes	2 Maybe	3 No	4 Can't say
Help reduce air pollution by reducing the demand for power and the need to build new power plants?	1 Yes	2 Maybe	3 No	4 Can't say

Q37. At this time, are you likely to buy any electrical appliances in the next year (other than the ones you've already told me about)?

Refrigerator	:	1
Geyser	:	2
Air conditioner	:	3
Other _____		

Q38a. Do you have a back-up generator to power your electrical appliances if a power outage occurs?

Yes	:	1
No	:	2
Can't say	:	3

Q38b.

42.1.1.1.1 Section 6: Appliance Labels

Now I'd like to show you a label that refrigerator, geyser, and air conditioner manufacturers may put on their appliances. We want to get your reactions to this label.

Q37a. HAND FIRST LABEL SHEET TO RESPONDENT

If you saw this label on an appliance, what would it mean to you?

Power savings rating	:	1
Use this label to compare different models for power use	:	2
Other _____		

Q38b. If you saw two refrigerators, side by side, and one had this label, and one had no label, which one would you prefer?

One star label	:	1
No label	:	2
Can't say	:	3

Why?

Q39. SHOW TWO LABELS SIDE BY SIDE, ONE WITH 1 STARS, ONE WITH FOUR STARS.

Now here are two similar labels. If you saw two refrigerators, side by side, and one had this label (1 stars), and one had this label (4 stars), which one would you prefer?

One star	:	1
Four stars	:	2

Can't say : 3

Why? _____

—

Q40. Just to explain, these labels are meant to show how power efficient appliances are, so that you can compare models for power efficiency. For instance, when you go to buy a refrigerator, all the models would have a label and you could compare how much electricity they use per year. How effective is this label in communicating this information to you?

Very effective : 1
Somewhat effective : 2
Neither effective nor ineffective : 3
Somewhat ineffective : 4
Very ineffective : 5

Q41. How important is it to have a label for power efficiency on appliances like refrigerators, geysers, and air conditioners?

Very important : 1
Somewhat important : 2
Neither important nor unimportant : 3
Somewhat unimportant : 4
Very unimportant : 5

Q42. Why do you say (give rating)

42.1.1.1.2 Section 6: Demographics and Final Questions

Q43. Can you please tell me, what is your age ? RECORD AGE IN THE SPACE BELOW IN COMPLETED YEARS.

years

Q44. Do you live in a joint family or a nuclear family ?

Joint family : 1 Nuclear family : 2

Q45. COLLECT WORKING STATUS OF HOUSEWIFE

- Not working - unemployed / housewife
- student
- retired
- Working part time - 4 hours or less per day
- Working full time - more than 4 hours per day
- Not disclosed

Q46. COLLECT EDUCATION OF HOUSEWIFE

What is the highest level to which you / your wife has studied ?

EDUCATION

- Illiterate : 1
- School upto 4 years : 2
- School upto 5-9 years : 3
- Matric/SSC : 4
- Attended college/not graduated : 5
- Graduate/ PG General : 6
- Graduate/ PG Professional : 7

Q47. COLLECT MONTHLY HOUSEHOLD INCOME.

- | | | | | | |
|-------------------|---|---|---------------------|---|---|
| Less than Rs. 750 | : | 1 | Rs. 8,001 - 9,000 | : | A |
| Rs. 751 - 1,000 | : | 2 | Rs. 9,001 - 10,000 | : | B |
| Rs. 1,001 - 3,000 | : | 3 | Rs. 10,001 - 15,000 | : | C |
| Rs. 3,001 - 3,500 | : | 4 | Rs. 15,001 - 20,000 | : | D |
| Rs. 3,501 - 4,000 | : | 5 | Rs. 20,001 - 30,000 | : | E |
| Rs. 4,001 - 5,000 | : | 6 | Rs. 30,001 - 40,000 | : | F |
| Rs. 5,001 - 6,000 | : | 7 | Rs. 40,001 + | : | G |
| Rs. 6,001 - 7,000 | : | 8 | | | |
| Rs. 7,001 - 8,000 | : | 9 | | | |

Q48. COLLECT HOUSEHOLD SIZE

LABELS USED AS STIMULI

**SEC GRID
EDUCATION OF ME**

OCCUPATION OF ME :	Illiterate 1	School Upto 4 yrs 2	School 5-9 yrs 3	SSC/HSC 4	Attd.College but not grad. 5	Grad./PG-Genl. 6	Grad./Prof. 7
Unskilled worker 1	E2	E2	E1	D	D	D	D
Skilled worker 2	E2	E1	D	C	C	B2	B2
Petty trader 3	E2	D	D	C	C	B2	B2
Shop owner 4	D	D	C	B2	B1	A2	A2
Businessman Industrialist with no.of employees :							
None 5	D	C	B2	B1	A2	A2	A1
1-9 6	C	B2	B2	B1	A2	A1	A1
10 + 7	B1	B1	A2	A2	A1	A1	A1
Self employed professional 8	D	D	D	B2	B1	A2	A1
Clerical/Sales 9	D	D	D	C	B2	B1	B1
Supervisory level A	D	D	C	C	B2	B1	A2
Officer/Exec. - Jr. B	C	C	C	B2	B1	A2	A2
Officer/Exec. - Mid/Sr. C	B1	B1	B1	B1	A2	A1	A1

EDU : _____

OCC : _____

SEC : _____

ADDITIONAL DEMOGRAPHICS

Age

The average age of the respondent was 43 years. The variation across all cities and by SECs is very low.

Working status of the housewife

Around 82% of the housewives are not working/ unemployed. Looking at the variations across cities this figure ranges from 75% in Mumbai to 88% in Calcutta.

SEC

For this research we covered SEC A, B and SEC C. The distribution of SEC A, B and C were according to the ownership of appliances. The percentage of respondents covered in SEC A, B, and C is as follows:

TABLE 27 – PERCENTAGE OF RESPONDENTS
COVERED IN SEC A, B, C
(%)

SEC	All Cities	Del	Cal	Mum	Ahm	Chn	Blr
(Total)	(1864)	(331)	(320)	(268)	(304)	(400)	(241)
SEC A1	38	35	47	30	39	28	55
SEC A2	24	27	21	18	26	28	19
SEC B1	18	20	17	23	17	17	12
SEC B2	10	8	8	13	11	13	6
SEC C	11	10	7	16	8	14	9

There is a general skew towards SEC A (i.e. SEC A1 and SEC A2). In Calcutta and Bangalore there is a skew towards SEC A1 suggesting that in both these cities ownership of durables is higher in the higher SEC compared to other cities.

Monthly Household Income (MHI)

The average MHI of respondents across all cities is as follows:

All	Rs.	9,025
Delhi	Rs.	8,058
Calcutta	Rs.	10,177
Mumbai	Rs.	9,414
Ahmedabad	Rs.	9,888
Chennai	Rs.	7,371
Bangalore	Rs.	10,063

The income across cities has some variations.

In Calcutta and Bangalore the average MHI is higher because most of the respondents belonged to SEC A1.