



A Study on Consumer Satisfaction Towards Select UPS with Special Reference to Coimbatore

Dr.K.Poorna

M.Com, M.Phil, MBA, PhD. Head of the Department, Department of Commerce, PSG College of Arts and Science, Coimbatore-641 014

Mrs.N.Kavitha

M.Com, M.Phil, PGDCA, MBA. Assistant Professor, Department of Commerce, PSG College of Arts and Science, Coimbatore-641 014

ABSTRACT

An Uninterruptible Power Supply, also Uninterruptible Power Source, UPS or battery or flywheel backup is an electrical apparatus that provides emergency power to a load when the input power source, typically mains power, fails. A UPS differs from an auxiliary or emergency power system or standby generator in that it will provide near-instantaneous protection from input power interruptions, by supplying energy stored in batteries or a flywheel. The on-battery runtime of most uninterruptible power sources is relatively short (only a few minutes) but sufficient to start a standby power source or properly shut down the protected equipment. Suggestions have been given to the manufacturers, dealers and consumers. From the study we conclude that most of the people are aware of UPS. The UPS companies have to take measure on some drawbacks like high cost and continuous alarm beep sound. Through this study we come to the conclusion that customer satisfaction should be the sole aim of the seller.

KEYWORDS

INTRODUCTION

An Uninterruptible Power Supply, also Uninterruptible Power Source, UPS or battery or flywheel backup is an electrical apparatus that provides emergency power to a load when the input power source, typically mains power, fails. A UPS differs from an auxiliary or emergency power system or standby generator in that it will provide near-instantaneous protection from input power interruptions, by supplying energy stored in batteries or a flywheel. The on-battery runtime of most uninterruptible power sources is relatively short (only a few minutes) but sufficient to start a standby power source or properly shut down the protected equipment.

A UPS is typically used to protect hardware such as computers, data centers, telecommunication equipment or other electrical equipment where an unexpected power disruption could cause injuries, fatalities, serious business disruption or data loss. UPS units range in size from units designed to protect a single computer without a video monitor (around 200 VA rating) to large units powering entire data centers or buildings. The world's largest UPS, the 46-megawatt, Battery Electric Storage System (BESS), in Fairbanks, AK, powers the entire city and nearby rural communities during outages.

The offline or standby UPS (SPS) offers only the most basic features, providing surge protection and battery backup. The protected equipment is normally connected directly to incoming utility power. When the incoming voltage falls below or rises above a predetermined level the SPS turns on its internal DC-AC inverter circuitry, which is powered from an internal storage battery. The SPS then mechanically switches the connected equipment on to its DC-AC inverter output.

The line-interactive UPS is similar in operation to a standby UPS, but with the addition of a multi-tap variable-voltage autotransformer. The online UPS is ideal for environments where electrical isolation is necessary or for equipment that is very sensitive to power fluctuations.

A hybrid (double conversion on demand) UPS operates as an off-line/standby UPS when power conditions are within a certain preset window. In double conversion mode the UPS can

adjust for voltage variations without having to use battery power, can filter out line noise and control frequency.

Ferro-resonant units operate in the same way as a standby UPS unit; however, they are online with the exception that a Ferro-resonant transformer is used to filter the output. Many Ferro-resonant UPSs are 82–88% efficient (AC/DC-AC) and offer excellent isolation.

Objectives of the study

1. To study the awareness of UPS among the customers
2. To study the utilization and performance of UPS
3. To measure the level of satisfaction of customers in using UPS
4. To offer valuable suggestions based on the study

Scope of the study

The usage of UPS has been increased in few years due to the problem of power cut. This research aims at finding out the awareness, utilization, performance and satisfaction level of the consumer towards the usage of UPS.

METHODOLOGY OF THE STUDY

Coimbatore being the Manchester of south India is taken for the study. The study has used primary data which is collected from 150 respondents. A questionnaire has been prepared in such a way that the respondents were able to give their opinion regarding the study. Convenient random sampling is used to collect the data.

Tools for analysis

Following tools were used to analyze the data collected from the respondents.

- a. Percentage Analysis
- b. Weighted average score analysis

Limitations of the study

- The study is restricted to Coimbatore city only
- Sample size is restricted to 150
- Time and Cost were the major limiting factors of the study.

Analysis and interpretation

Table No.01 Demographic characteristics of samples

Variables		No. of respondents	%
Gender	Male	106	71
	Female	44	29
	Total	150	100
Age	Below 25 years	42	28
	25-35 years	38	25
	35-45 years	27	18
	45-55 years	24	16
	Above 55 years	19	13
	Total	150	100
Educational level	No formal education	15	10
	School level	27	18
	Undergraduate	46	31
	Post graduate	36	24
	Professionals	26	17
	Total	150	100
Marital status	Married	89	60
	Unmarried	61	40
	Total	150	100
Occupational status	Agriculture	12	8
	Business	40	27
	Employed	47	31
	Housewives	12	8
	Student	30	20
	Retired	9	6
	Total	150	100
Family monthly income	Below Rs.10,000	9	6
	Rs.10,001-Rs.20,000	48	32
	Rs.20,001-Rs.30,000	29	19
	Above Rs.30,000	64	43
	Total	150	100
Size of the family	Joint family	63	42
	Nuclear family	87	58
	Total	150	100
Source of awareness	Advertisement	62	41
	Friends and relatives	60	40
	Dealers	17	11
	Sales person	11	8
	Total	150	100

Table No.02 UPS BRAND OF THE RESPONDENTS

S. No	UPS brand	No. of Respondents	Percentage (%)
1	Luminous	34	23
2	Microtek	36	24
3	V-guard	43	29
4	APC	14	9
5	Su-kam	23	15
	Total	150	100

Table No.03 CAPACITY OF UPS OF THE RESPONDENTS

S. No	Capacity of UPS	No. of Respondents	Percentage (%)
1	600VA	20	13
2	850VA	76	51
3	1KVA	23	15
4	2KVA	20	13
5	Above 2KVA	11	08
	Total	150	100

Table No.04 BACKUP POWER OF UPS OF THE RESPONDENTS

S. No	Backup power of the UPS	No. of Respondents	Percentage (%)
1	1-5hours	42	28

2	6-7hours	69	46
3	8-9 hours	23	15
4	10hours and above	16	11
	Total	150	100

Table No.05 WARRANTY PERIOD FOR INVERTER OF THE RESPONDENTS

S.No	Warranty period for inverter	No. of Respondents	Percentage (%)
1	1-3years	57	38
2	4years	46	31
3	5years	35	23
4	6-10years	12	8
	Total	150	100

Table No.06 WARRANTY PERIOD FOR BATTERY OF THE RESPONDENTS

S.No	Warranty period for battery	No. of Respondents	Percentage (%)
1	1-3years	65	43
2	4years	57	38
3	5years	20	14
4	6-10years	8	5
	Total	150	100

Table No.07 TIME TAKEN TO CHARGE UPS OF THE RESPONDENTS

S.No	Time taken to charge UPS	No. of Respondents	Percentage (%)
1	1-4hours	28	19
2	5hours	71	47
3	6hours	36	24
4	Above 7 hours	15	10
	Total	150	100

Table No.08 COST OF THE UPS OF THE RESPONDENTS

S. No	Cost of UPS	No. of Respondents	Percentage (%)
1	Below ₹ 10000	17	11
2	₹ 10000- ₹ 20000	81	54
3	₹ 20001- ₹ 30000	32	21
4	Above ₹ 30000	20	13
	Total	150	100

Table No.09 USAGE PERIOD OF THE RESPONDENTS

S. No	Usage period	No. of Respondents	Percentage (%)
1	Below1year	32	21
2	2-3years	67	45
3	4-5years	28	19
4	Above5years	23	15
	Total	150	100

Table No.10 REPLACEMENT OF UPS OF THE RESPONDENTS

S. No	Replacement of UPS	No. of Respondents	Percentage (%)
1	Yes	52	35
2	No	98	65
	Total	150	100

Table No.11 LEVEL OF SATISFACTION OF THE RESPONDENTS

Facilities	Level of Satisfaction					Total respondents	Mean
	Highly satisfied	Fairly Satisfied	Just satisfied	Not satisfied	Not at all satisfied		
Quality	60	39	30	12	9	150	3.86
Price	51	30	45	16	8	150	3.67
Durability	48	36	35	24	7	150	3.63

Usage	54	33	26	17	20	150	3.56
Convenience	57	36	18	26	21	150	3.71
After sales service	36	66	12	21	12	150	3.56

Table No.12 RANKING OF PROBLEMS OF THE RESPONDENTS

S. No	Problems	Rank1	Rank2	Rank3	Rank4	Rank5	Score
1	Backup time is Shorten	44	33	27	18	28	3.31
2	Alarm buzzer beeps continuously	32	55	27	18	17	3.43
3	Hearing noise Coming out of the UPS	28	29	36	30	28	3.21
4	Battery is not Charged	24	16	25	54	31	2.65
5	Poor service	22	17	35	30	46	2.59

FINDINGS

- Majority of the respondents are male. Most of the respondents belong to the age group below 25 years. Majority of the respondents have completed their under graduation. Majority of the respondents are single. Most of the respondents are employed. Majority of the respondents belongs to nuclear family. Most of the respondents earn above ₹30000.
- Most of the respondents are aware of ups through advertisement.
- Most of the respondents are using V-guard.
- Majority of the respondents are using the ups with the capacity of 850VA.
- Most of the respondents backup power of their ups is between 6-7hours.
- Most of the respondents warranty period for their inverter is between 1-3years.
- Most of the respondents warranty period for their battery is between 1-3 years.
- Most of the respondents have UPS takes 1-4 hours to get charged.
- Majority of the respondents have paid between ₹ 10000- ₹ 20000 for their UPS.
- Most of the respondents have been using UPS between 2-3years.
- Majority of the respondents have not replaced their UPS.
- Most of the respondents are highly satisfied with the quality
- Majority of the respondents are ready to recommend their UPS brand to others.
- Most of the respondents ranked alarm buzzer beeps continuously problem as first.

SUGGESTIONS

From the above study the most important suggestions were given to

Manufacturers

Continuous alarm from the inverter and sound from UPS during the performance irritates the consumers so manufactures have to take necessary steps to solve these problems. Consumer feels that the cost of the UPS is more so the manufac-

tures should reduce the cost of UPS.

Dealers

After sales service provided by the dealers were not satisfied by the customers. So the dealers have to take necessary steps to solve the problems of the customers in an effective and efficient manner. So that the customers will feel happy and also they will recommend to others to purchase, which in turn will also increase the profit.

Consumers

Consumers have to use as per the instructions given in the manual to safeguard the UPS.

CONCLUSION

From the study we conclude that most of the people are aware of UPS. UPS has been considered as one of the essential commodity in this busy daily life. The UPS companies have to take measure on some drawbacks like high cost and continuous alarm beep sound. Through this study we come to the conclusion that customer satisfaction should be the sole aim of the seller.