

A Study on Utilization of Electricity Services by Consumers of Ludhiana District

Charu and N. Mehrotra

Punjab Agricultural University, Ludhiana 141 004, Punjab, India

KEYWORDS Awareness. Problems. Action. Redressal. Grievances

ABSTRACT Electricity is an essential requirement for all facets of our life. It has been recognized as a basic human need. It is a critical infrastructure on which the socio-economic development of the country depends. This paper focused on the electricity services provided to rural and urban consumers of Ludhiana district. The awareness level of consumers regarding these services and their utilization was assessed. The paper also emphasised the problems faced by the consumers regarding electricity services and actions taken by them for resolving these problems. For rural sample two villages were randomly selected from block one and for urban sample two localities were randomly selected from Ludhiana city. Sixty respondents each from rural and urban areas were taken, thus making the total sample size of 120. Data were collected through interview schedule. Result revealed that urban respondents were more aware of services like facility of Suwidha Kendra, on the spot issuing of bills, easy bill machines, rates of units charged etc. However rural respondents were aware of the provision of free electricity for tube wells. While utilizing these services more rural respondents were facing problems such as frequent power cuts, voltage fluctuation, poor maintenance of cables, delay in attending complaints etc. But when it comes to actions for redressal of grievances very few respondents were making complaints to the concerned authority.

INTRODUCTION

Electricity is an essential requirement for all facets of our life. It has been recognized as a basic human need. It is a critical infrastructure on which the socio-economic development of the country depends. Recognizing that electricity is one of the key drivers for rapid economic growth and poverty alleviation, the nation has set itself the target of providing access to all households. The National Electricity Policy (2005) was formulated to provide reliable and quality power of specified standards in an efficient manner and at reasonable rates while protecting the interest of the consumers. However all the initiatives remain black and white unless these are effectively utilized by the consumer. So the role of consumer is equally important. But studies have indicated that lack of awareness and non participatory attitude of consumer especially in rural areas have hampered the effective utilization of electricity services (Singh 1997). Modi (2005) in his working paper found that villagers in M.P. were clear about the specifics of their power problems, but were not at all proactive in taking up issues with relevant agencies. So the present study deals with the awareness level of rural and urban consumer, the utilization of electricity services, problems

Address correspondence to:

Charu
Room No. 44, Hostel No. 6,
Punjab Agricultural University, Ludhiana
Mobile: 9872966309
E-mail: charumakhija@gmail.com

faced by the consumers and the measures they were taking for resolving their problems.

METHODOLOGY

This study was conducted in rural and urban areas of Ludhiana District in 2010. A multistage random sampling technique was followed. While selecting respondents from rural area one block of Ludhiana district was chosen, that is, block I. Two villages, that is, *Pamal* and *Bhanour* were selected from this block. Thirty respondents were selected from each of these villages. For the selection of urban respondents two localities from Ludhiana city were chosen, that is, *Jawahar Nagar* and *Haibowal Khurd*. Thirty respondents from each of these localities were selected, thus making the total sample size of 120. The data were collected through Interview Schedule and the contents of services for making interview schedule were obtained from concerned authority. The data were analyzed using percentages, mean score, z-test, t-test and rank correlation. Mean score on three point scale were calculated by assigning 2,1,0 scores for always, sometimes and never respectively.

RESULTS AND DISCUSSION

Awareness of the Respondents for Electricity Services

Table 1 depicts awareness level of the respondents for electricity services. A close scrutiny of

the data reveals that 71.67 per cent of rural respondents and only 5.00 per cent of urban respondents were aware that 'Free electricity is provided for tube wells'. Result depicts that there was a highly significant difference ($z=7.52^{***}$) between urban and rural respondents. Highly significant difference ($z= 3.87^{***}$) was also observed for service 'Payments of bills through easy bills machine'.

A further glance at the data shows 21.67 per cent urban respondents and 16.67 per cent rural respondents were aware that 'Penalty for illegal connection is 100 per cent for direct load and 30 per cent for indirect load'. The Z value came out to be non-significant ($z= 0.69$). No significant difference ($z=0.91$) was found for 'Free electricity of 200 units for SCs using 1kWh' as 83.33 per cent urban respondents and 76.67 per cent rural respondents were aware about it.

All the urban and rural respondents were aware of the services like connection form can be obtained from electricity board, filings of complaints in electricity board, increase/ decrease in meter load, power points as per meter load and bills for electricity are paid in electricity board office.

Response regarding 'Payments of bills through online' is very low. This might be due to the fact that this is recently introduced.

From these findings it appears that urban respondents were more aware than rural respon-

dents for the services provided by electricity department. The reason for this may be more exposure of media, easy accessibility etc. but despite of this in the end the responsibility of being alert lies on consumers themselves as there is well known saying that 'there can't be rights without responsibilities.'

Frequency of Utilization of Electricity Services by the Respondents

The data pertaining to frequency of utilization of electricity services are given in Table 2. The data shows highly significant difference ($t=2.43^{***}$) for the utilization of the service 'On the spot issuing of bills'. The mean score for urban area came out to be 1.58 and it was 0.00 for rural area. The reason is the facility is not yet available in villages. The mean score for 'Free electricity for tube wells' was 0.65 in rural area and 0.00 in urban area as tube wells are source of irrigation only in rural area. The t-value came out to be significant ($t=2.33^{**}$).

It is also clear from the table that there is no significant difference ($t=0.59$) for service 'Free electricity of 200 units for SCs using 1kWh' as mean score for urban area was 1.16 and for rural area it was 1.39. Services like getting connection from *Suwidha Kendra* and filing complaints in *Suwidha Kendra* were utilized only by urban respondents whereas rural respondents were reporting complaints to concerned author-

Table 1: Awareness of the respondents for electricity services

Services	Rural		Urban		Z value
	No.	Percentage	No.	Percentage	
Connection from					
a) Electricity board	60	100.00	60	100.00	NA
b) <i>Suwidha Kendra</i>	9	15.00	28	46.67	3.76 ^{***}
Free electricity up to fixed units for SCs	46	76.67	50	83.33	0.91
Free electricity for tube wells	43	71.67	3	5.00	7.52 ^{***}
Increase/decrease in meter load	60	100.00	60	100.00	NA
Filing of complaints in					
a) Electricity board office	60	100.00	60	100.00	NA
b) <i>Suwidha Kendra</i>	10	16.67	28	46.67	3.53 ^{***}
Rates of units charged	41	68.33	57	95.00	3.78 ^{***}
Power points as per meter load	60	100.00	60	100.00	NA
Penalty for illegal connection (100% -direct load, 30% indirect load)	10	16.67	13	21.67	0.69
Penalty for excess points (Rs.750 -single phase, Rs.1500 -three phase)	8	13.33	11	18.33	0.75
On the spot issuing of bills	22	36.67	38	63.33	2.92 ^{***}
Payments of bills - Electricity board office	60	100.00	60	100.00	NA
Easy bill machine	10	16.67	30	50.00	3.87 ^{***}
Online	6	10.00	11	18.33	1.31

^{***} 1% level of significance

Table 2: Frequency of utilization of electricity services by the respondents

Services	Mean score		t-value
	Rural	Urban	
Connection from			
a) Electricity board office	2.00	1.80	0.61
b) <i>Suwidha Kendra</i>	0.00	0.29	0.71
Free electricity up to fixed units for SCs	1.39	1.16	0.59
Free electricity for tube wells	0.65	0.00	2.33**
Filing of complaints in			
a) Electricity board office	0.58	0.78	0.75
b) <i>Suwidha Kendra</i>	0.00	0.29	0.71
Power points as per meter load	2.00	2.00	NA
On the spot issuing of bills	0.00	1.58	2.43**
Payment of bills-			
Easy bill machine	0.00	0.33	0.85
Electricity board office	2.00	2.00	NA

Mean score has been worked out in relation to the number of respondents who were aware

** 5 % level of significance

ity as facility of *Suwidha Kendra* was not available in villages. Other service like ‘Payment of bills through online’ was not utilized by any of the respondent.

Problems Faced by the Respondents for Electricity Services

The data pertaining to problems related to electricity is shown in Figure 1. The data shows that all the urban respondents faced the prob-

lem of frequent power cuts. The other problems related to electricity were poor maintenance of cables (66.67%), delay in attending complaints (45.00%), voltage fluctuation (40%), weak redressal system (26.67%) and frequent power failure (25%). Problems of low voltage, wrong billing, delay in getting connection and defective meter were also reported by few respondents.

A further glance at the data depicts that all the rural respondents reported problems of frequent power cut, followed by voltage fluctuation (80.00%) and poor maintenance of cables (75.00%). The other problems faced by the rural respondents were, delay in attending complaints (33.33%), low voltage (33.33%), weak redressal system (30%) and delay in getting connection (23.33%) Along with this frequent power failure (20%), defective meter (18.33%) and wrong billing (16.67%) were also reported. The rank correlation coefficient was came out to be significant($r=0.78^{***}$).

The result shows that problems related to electricity supply were more prevalent in rural areas. The findings are in agreement with the survey conducted by Anonymous (2001) for Government of India and Ground Report India (2010) who observed that “Rural electricity supply in India has been lagging in terms of service (measured by hours of supply) as well as penetration. Only 31% of the rural households have access to electricity, and the supply suffers from frequent power cuts and high fluctuations

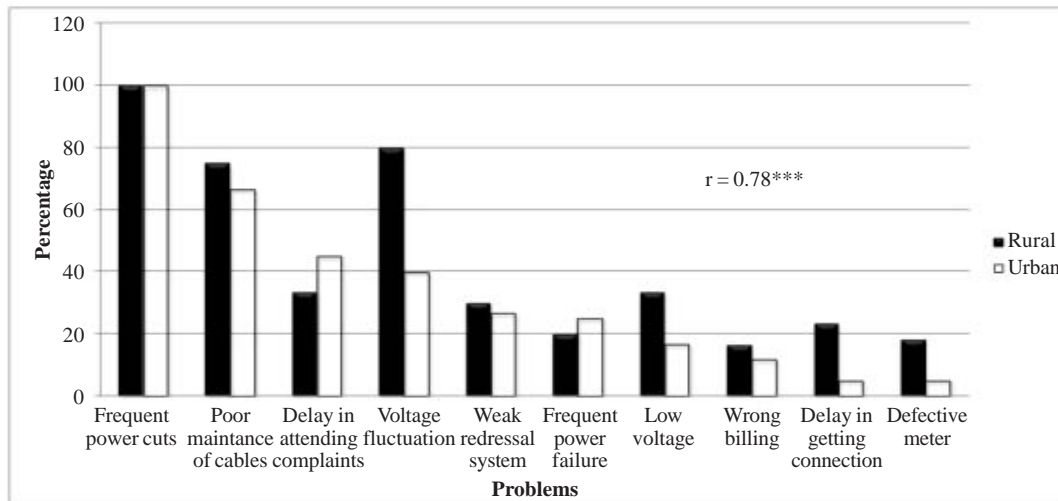


Fig. 1. Problems faced by the respondents for electricity services
 *** 1% level of significance

in voltage and frequency, with so-called black-outs and brownouts". Electricity supply in the state of Uttar Pradesh, India is in shambles, and no corrective measures are undertaken as officials responsible for the task are just unconcerned with it (Bansal 2010).

Actions Taken by the Respondents for Problems of Electricity Services

There is no denying facts that the consumers have the basic right to be protected from the loss or injury caused on account of defective goods and delivery of services. But they hardly use their rights due to lack of awareness, ignorance and lethargic attitude. According to Thiripurasundari (1998), Indian consumers were unwilling to volunteer service and in fact, 'The Indian consumer grumbles but seldom acts'. Therefore an effort has been made in this section to know the actions taken by the respondents for solving their problems. It is evident from Table 3 that only 11.67 per cent urban respondents gave written complaints and 36.67 per cent respondents approached intermediary channels while 55 per cent of the respondents didn't take any action for problem of frequent

power cuts. Poor maintenance of cables was found to be another major problem in urban area but only 15.00 per cent respondents registered written complaints followed by 17.5 per cent respondents who made verbal complaints and 30 per cent respondents who approached intermediary channel. No action was taken by 62.5 per cent of the respondents. It is also clear from the table that for problems like wrong billing all the respondents registered a complaint. The action 'Verbal complaint' was taken only in two problems, that is, poor maintenance of cables and voltage fluctuation.

Table 3 further throws light on actions taken by the rural respondents for solving their problems. It is evident from the table that frequent power cuts were a major problem in rural area. In spite of this only 6.66 per cent respondents registered a written complaint and 35 per cent respondents approached intermediary channel. No action was taken by other respondents. For problems of voltage fluctuation 70.83 per cent respondents didn't take any action, followed by 14.58 per cent respondents who approached intermediary channels, 12.5 per cent respondents who put verbal complaints.

Bribe was not used as an action for solving the electricity problems except in case of delay

Table 3: Actions taken by the respondents for problems of electricity services

Problems	Actions taken											
	Rural area						Urban area					
	No.	NA	VC	AIC	B	WC	No.	NA	VC	AIC	B	WC
Frequent power cuts	60	38 (63.33)	0	21 (35.00)	0	4 (6.66)	60	33 (55.00)	0	22 (36.67)	0	7 (11.67)
Poor maintenance of cables	45	30 (66.67)	7 (15.55)	10 (22.22)	0	3 (6.67)	40	25 (62.50)	7 (17.50)	12 (30.00)	0 (15.00)	6
Delay in attending complaints	20	13 (21.67)	0	7 (35.00)	0	2 (10.00)	27	15 (55.56)	0	10 (37.04)	0	4 (14.80)
Voltage fluctuation	48	34 (70.83)	6 (12.50)	7 (14.58)	5 (10.42)	0	24	14 (58.33)	7 (29.17)	2 (8.33)	2 (8.33)	0
Weak redressal system	18	11 (61.11)	4 (22.22)	5 (27.77)	0	0	16	10 (62.50)	0	5 (31.25)	0 (12.50)	2
Frequent power failure	12	9 (75.00)	0	3 (25.00)	0	3 (25.00)	15	9 (60.00)	0	4 (26.67)	0	3 (20.00)
Low voltage	20	14 (70.00)	1 (5.00)	9 (45.00)	0	0	10	6 (60.00)	0	3 (30.00)	0 (10.00)	1
Wrong billing	10	0	0	2 (20.00)	0	8 (80.00)	7	0	0	0	0 (100.00)	7
Delay in getting connection	14	0	0	6 (42.86)	4 (28.57)	4 (28.57)	3	0	0	0 (66.67)	2 (33.33)	1

Frequencies for actions taken, have been worked out in relation to number who were facing the problems (Multiple response)

Figure in parentheses indicates percentage

NA- No action VC - Verbal complaint

AIC - Approach intermediary channel (authority figure like sarpanch, ward members)

B- Bribe

WC- Written complaint

in getting connection and voltage fluctuation by both rural as well as urban respondents.

From the table it can thus be concluded that majority of the respondents were not taking any action for the problems faced by them. Neelkanta and Anand (1992) also found that people preferred to absorb and endure the wrong done to them rather than fight against injustice. The same results were revealed by Khurana and Khurana (2012) in a study in which they observed that all the respondents faced the situation of consumer exploitation in one way or other but only 10% approached to the consumer forum for justice. No one used National Consumer Helpline. But in order to put an end to these problems consumer should come forward to take a step rather than bearing the problem silently.

CONCLUSION

Electricity services are key to development and its effectiveness depend on the proper utilization by the consumers. But result of the study concludes that awareness level of respondents regarding various electricity services was quite abysmal especially in case of rural respondents. They were facing lots of problems like frequent power cuts, poor maintenance of cables, voltage fluctuation etc. but not making any complaints. In an era when so many rights are given to consumers and a number of laws have been enacted to protect consumers, it was quite disappointing to note that very few respondents were utilizing these powers.

RECOMMENDATIONS

Consumers grumble when they were cheated but avoid seeking redressal. Hence the exploitation of consumers is increasing day by day. This can be stopped only when consumers will be alert, aware and self reliant which is possible through consumer guidance and education. Besides educating the consumers it is important that consumerism is made a felt need of people. They should come forward; explore the existing avenues and demand for more to be informed and self reliant.

REFERENCES

- Anonymous 2001. *Blueprint for Power Sector Development*. New Delhi: Ministry of Power, Government of India.
- Bansal R 2010. Disappointing Electricity Supply in UP State of India. From <[http:// www.news.wikinut.com](http://www.news.wikinut.com)> (Retrieved April 16, 2010).
- Ground Report India: ISSN 1839-6232. From <<http://www.groundreportindia.com>> (Retrieved February, 11, 2010).
- Kurana S, Khurana P 2012. Consumer awareness regarding consumer protection and Consumer Protection Act 1986 –An empirical study. *IJRFM*, 2(2): 279-292.
- Modi V 2005. Improving Electricity Services in Rural India. *CGSD Working Paper No. 30*, Columbia University: Centre on Globalization and Sustainable Development.
- Neelkanta BC, Anand HB 1992. Educating the consumer. *Social Welfare*, 37: 5-6.
- Singh V 1997. *Impact of Consumer Literacy on Purchase Behavior of Home Makers*. M.Sc. Thesis, Unpublished. Hisar: Chaudhary Charan Singh Haryana Agricultural University.
- Thiripurasundari K 1998. Need for developing a new consumer culture. *Kisan Wld*, 25: 25-27.