Capacity and Willingness of Farmers to Pay for Extension

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ABSTRACT

A study was conducted in two districts namely Kanpur Nagar and Kanpur Dehat of Uttar Pradesh on a sample size of 200 farmers in order to find out the capacity and willingness of farmers to pay for extension services. The opinion of private extension agencies and public extension agencies alongwith other partners of technology dissemination were also obtained. The willingness of farmers to pay for extension services was found depending upon severity and urgency of the problem and also on the possibility of economic returns from a particular service. About 50 per cent farmers agreed that effect of treatment/advice and its economic viability were the major criterion influencing willingness to pay. The 39 per cent farmers agreed that a reasonable levy should be charged on certain agricultural products as fee after crop harvesting. The 34 per cent farmers agreed that the approach might be effective 'cost sharing by group of farmers'.

Constraints related to input delivery services such as 'adulteration in fertilizers, pesticides and seeds, selling of out of expiry date inputs, 'poor knowledge about inputs quality' were major constraints as perceived by farmers. Impurity of seed was another severe problem in the opinion of farmers. Lack of private agencies in diagnostic services, advice related to product, unskilled sellers performing advisory services, non existence of staff in full time for extension, were the major problems associated with diagnosis and advisory services. Fragmented land holdings, varied farming situation and crops, socio-economic imbalances, etc. were the other major general constrains as perceived by the farmers, researches/experts and private agencies.

Key words : *Private extension; Public extension; Willingness of farmers; Extension services;*

Today's farmers are different from yesterday, because they adopt diversified and intensive cultivation practices for obtaining maximum income. Therefore, they depend upon various agencies for inputs including information and knowledge. The capacity of purchasing inputs depends upon economic status of the farmers. The willingness to pay is influenced by many factors, one important factor is socio-economic condition of the farmer.

Capacity denotes economic status of the farmers. Economic position was assessessed with the help of measurement scale developed by Trivedi (1963) with some modification. The information regarding economic status was analyzed to determine the capacity based on score value obtained, farmers are categorized in to different capacity groups.

METHODOLOGY

Two districts namely Kanpur Nagar and Kanpur Dehat were selected for the present investigation. From each district, one block was randomly selected and 100 farmers were included as respondents from 4 randomly selected villages. Thus, total size of sample was 200 farmers. In addition to farmers, different private extension agencies including input dealers, farmers' organization, progressive farmers, NGOs, consultancy firms, etc. were also identified as respondents. From each group of private agency, two agencies were randomly selected for studying their responses.

Empirical measures were either developed or use of already available measures was done to quantify the variables delineated in the study. Payment opportunities and constraints were measured with the help of structured schedule developed for this purpose. To know the capacity to pay for extension services economic scale was used with certain modification. Willingness to pay for extension services was measured with the help of marketing approach method.

RESULTS AND DISCUSSION

It is clear from Table 1 that 46.5 percent farmers were found under fair economic status group followed by 24 per cent belonging to poor economic status group and 22.5 per cent to good economic status group.

Only 7 per cent farmers were found falling under better economic group.

Table 1. Categorization of farmers into different capacity groups

S. No.	Economic status of farmers	Range of score value	No. of clients	Percentage
1	Poor	1-10	48	24.00
2	Fair	11-20	93	46.50
3	Good	21-30	45	22.50
4	Better	31-40	14	07.00
	Total	-	200	100.00

The findings indicate that about 30 per cent farmers were having good or better economic status showing their capacity to pay for extension services. However, majority of the farmers possessed low economic status showing their poor capacity to pay for extension services.

Willingness of farmers to pay for extension services: For knowing willingness to pay, a hypothetical scenario was created for respondents/clients. The 'marketing approach' was used to understand the willingness of farmers to pay for extension services.

Table 2. Willingness of farmers to pay for extension services.

S. No.	Type of information/services for which clients are ready to pay	Percentage
1	Advice to solve specific problem in the field	54
2	Advice on plant protection measures	76
3	Advice on weed management	63
4	Advice for water harvesting and irrigation management including micro irrigation	22
5	Advice about sodic land reclamation	31
6	Purity/quality analysis of soil, water, seeds, fertilizers, etc	29
7	Training for seed production technique	59
8	Vegetables production/flower production	17
9	Orchard management	12
10	Bio-fertilizers (vermi composting) and Bio-pesticide production	42
11	Livestock management	60
12	Bee keeping	21
13	Poultry farming	14
14	Mushroom production	18
15	Fish/Piggery production	03

Table 2 indicates that 76 per cent farmers were ready to pay for "advice on plant protection measures" followed by 63 per cent farmers willing to pay for "advice on weed management" and 60 per cent for "livestock management".

Farmers were also ready to pay for owning training of seed production technique, followed by advice to solve specific problem in the field, bio-fertilizer (vermi composting) and bio-pesticide production, advice about sodic land reclamation, purity analysis of water, seed, fertilizers, etc.

The willingness of farmers to pay for advisory services was found depending upon severity.

Probable mechanism for payment: Table 3 indicates the mechanism of payment. The 46 per cent farmers agreed that effect of treatment/advice should be the basic criteria for payment. The 39 per cent farmers were of the opinion for reasonable levy charged on certain agricultural products as fee after crop harvesting. Similarly, 12-39 per cent farmers suggested different ways and means for payment.

Table 3. Mechanism for payment

S.N.	Mechanism for payment	Percentage	Rank
1.	Expert advice made available from a fixed place	30	V
2.	Advice based on field visit	32	IV
3.	Effect of treatment/advice if economically viable	46	I
4.	Seasonal/Annual contract system	26	VI
5.	Firm to provide receipt for the payment	14	VII
6.	A reasonable levy charged on certain agricultural products as fee after crop harvesting	39	II
7.	Cost sharing by group of farmers	34	III

Constraints of Privatized Extension Services : To meet the challenges of agricultural development in this millennium, there is an urgent need to make the agricultural extension more viable and efficient tool of technology transfer. The recent trends are quite different from those met in the previous decades. It is the edge of globalization and privatization and India is a partner of this revolution. Therefore, challenges of yesterday differ from today. Today's Indian pioneer farmer thinks about economic viable practices to minimize cost of cultivation and also exhibits quality consciousness for obtaining maximum profit. All efforts and policies, in the direction of privatized extension services face many barriers like geographical and agro-ecological conditions, socio-economic status of farmers small holdings, climatic variations, larger area under subsistence farming, varied type of cropping pattern, fragmented land holdings, poor resource availability, potitical and legal background, poor credit facilities etc. Some of the major constraints as perceived by farmers, private agencies and experts/researcher are presented in Table 4.

Table 4. Constraints to privatized extension services as perceived by farmers, private agencies and researchers/experts

S. No	Constraints	Agreeness				
		Farmers %	Private agencies %	Experts/ researchers %	Average agreeness %	Rank
	Raleated to input delivery services					
1	Adulteration in fertilizers	31	4	13	16.00	XVII
2	Seed impurity	61	14	42	39.00	X
3	Selling of 'out of expiry date' inputs	32	6	15	17.00	XV
4	Poor knowledge about inputs quality	26	7	16	16.40	XVI
5	Selling of poor quality pesticide which are packed and marketed by local formulators/dealers for profit maximation	39	2	17	19.40	XIV
	Related to advisory and diagnostic services					
6	Unskilled sellers are also performing advisory services	41	11	29	27.00	XIII
7	There is no full time staff recruited for field services	49	17	52	39.40	IX
8	Over promotion of any technique/inputs by private agencies create imbalance with nature	39	13	62	38.00	XI
9	Advice is only for the promotion of their product	46	39	56	47.00	VII
10	Lack of private agencies in diagnosis services	97	82	92	90.40	I
	Other general constraints					
11	Lack of related infrastructure for transfer of technology (TOT)	42	55	57	51.34	V
12	Fragmented land holding	66	59	69	64.70	II
13	Varied socio economic imabalances will not allow privatization	60	49	54	54.40	IV
14	Varied farming situation and crops	58	51	60	56.40	III
15	Input subsidies all of sudden can not be dropped after privatization	27	37	42	35.31	XII
16	Privatization based on criteria will lead to socio-economic inequality and regional imbalance	42	39	69	50.00	VI
17	Quality of research for all farmers by private agencies will be question mark	72	19	37	42.7	VIII
18	The political background	39	42	33	38.0	XI

More than half (61%) farmers, 14 per cent private agencies and 42 per cent experts/researchers agreed that seed impurity was common in input delivery services provided by private agencies 32 per cent farmers, 6 per cent private agencies and 15 per c6ent expert/researcher (average agree ness 17.7 per cent) agreed that input dealers sold "out of expiry date product/inputs." The 16.4 per cent average agreeness (farmers, private agencies and researchers/ experts) was found towards 'private input dealers had poor knowledge about input quality'. The 97 per cent farmers, 82 per cent private agencies and 92 per cent experts/researchers agreed that there was "lack of private agencies in diagnostic services". The 47 per cent respondents agreed that advice was only intended towards promotion of their product by private companies.

CONCLUSION

About 30 per cent farmers were found having good economic status showing their capacity to pay for extension services. The willingness of farmers to pay for extension services was found depending upon severity and urgency of the problem and also on the possibility of economic returns from a particular service. About 50 per cent farmers agreed that effect of treatment/advice and its economic viability were the major criterion influencing willingness to pay. The 39 per cent farmers agreed that a reasonable levy should be charged on certain agricultural products as fee after crop harvesting. Some farmers viewed that this mechanism may not be followed by the farmers of lower economic status. The 34 per cent farmers agreed that the approach might be effective 'cost sharing by group of farmres'.

Constraints related to input delivery services such as 'adulteration in fertilizers pesticides and seeds', 'selling of out of expiry date inputs', 'poor knowledge about inputs quality' were major constraints as perceived by farmers. Impurity of seed was another severe problem in the opinion of farmers. Lack of private agencies in diagnosis services, advice related to product, unskilled sellers performing advisory services, non existence of staff in full time for extension were the major problems associated with diagnosis and advisory services. Fragmented land holdings, varied farming situation and crops, socio-economic imbalances, etc. were the other major general constrains as perceived by the farmers, researches/experts and private agencies.

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