FARMERS' WILLINGNESS TO PAY (WTP) FOR ADVISORY SERVICES BY PRIVATE SECTOR EXTENSION: THE CASE OF PUNJAB

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Globally, there is a trend towards privatization due to poor performance of public extension services. Private agricultural extension system is considered demand-driven, cost-effective with efficient and quality services. This study was conducted to assess the opportunities and threats for private extension system regarding farmers' willingness to pay (WTP) for advisory services. Respondents were asked about their WTP on four point scale. Data were collected from 408 farmers selected randomly through multistage sampling from the province Punjab. The data were summarized using frequency distribution, mean and standard deviation. Results of the analysis showed that farmers were willing to pay for the services of cotton and rice crops in cotton-zone and rice-zone respectively. Similarly in both zones, farmers were also willing to pay for wheat crop. But in central-mixed-zone, farmers were not willing to pay for the services. This study concludes that limited opportunities exist for fee-based private extension system in the country.
Keywords: Private extension system, WTP for services, opportunities and threats

INTRODUCTION

Worldwide about 80% of the world's extension services are publicly- funded and delivered by almost 800,000 official extension workers (Feder *et al.* 2001). But the public sector extension is under heavy criticism because of its poor performance and its privatization is suggested as one of the solutions. Traditionally, in Pakistan, public sector provides the extension services to the farmers. A number of extension models/systems have been tried since independence but abolished one after the other due to one reason or the other. Hence public sector extension is also under pressure and criticism as reported by Tahir (1981), Munir (1982), Hussain (1983), Iqbal (1989), Malik *et al.* (1991), Ahmad (1992), Chaudhry *et al.* (1993). Government is looking towards alternative extension system including its privatization. Private extension is considered demand-driven, cost-effective with efficient and quality service, and more client-accountable (Saravanan, 2001). But, opponents of privatization argue that private sector is much more interested in earning profits rather than serving the farming community (Bajwa, 2004). In Pakistan, the process of privatization of agricultural extension system was started in 1988 by the then government of Pakistan, establishing a National Commission of Agriculture (Government of Pakistan, 1988). The said commission recommended the active involvement of private sector in providing the advisory services to the farmers. Buying the information is as important as other inputs like seeds, fertilizers and pesticides etc. If it happens, it will be a major shift in the minds of farmer and farming system in the country. For fee based agricultural extension delivery, different approaches had been experienced in the world. Generally, these approaches included contracting subject-matter specialists, share-cropping for profit, voucher schemes, privatized service centers, contract farming and farmer service centers etc.(Kidd *et al.* 2000). Whatever the approach was adopted, it is important to mention that in either approach farmers has to pay for services. In Pakistan, so far, no comprehensive study has been conducted to find out the potentials/implications of fee-for-extension service for farming community. Therefore, the study was conducted to find out the willingness of respondents to pay for extension services. In turn, it would explore the opportunities and threats for private extension system.

MATERIALS AND METHODS

A cross-sectional research design was used for the study. The study was carried out in the Punjab province which comprises five cropping zones, namely cotton zone, barani zone, central mixed zone, semi irrigated zone and rice zone (Younis *et al.* 1990). Three zones i.e. cotton, rice and central mixed zone, were selected purposively. Because, in these zones major crops were grown and private sector was actively engaged in providing extension services to their clientele. Multistage sampling technique was used for the selection of respondents. During first stage, three districts were selected, one from each zone by simple random sampling. During second stage, a sample of 408 respondents was selected (136 from each zone) by simple random sampling. Sample size was determined by using Fitzgibbon table (Fitzgibbon & Lynn, 1987). The data were collected through personal interviews with the help of validated research instrument. The data, thus collected were analyzed by using computer software (i.e. SPSS).

RESULTS AND DISCUSSION

Experiences in different countries have shown that inefficiencies are unavoidable if a service such as agricultural extension is provided free of charge to the

end-users. Therefore, free extension services may be finished. The farmers must pay for the services they get from extension agencies. The respondents were directly asked about their WTP for advisory services and results are discussed below.

The data presented in table 1 show that whether or not farmers are willing to pay for extension services regarding agronomic practices. Zone-wise comparative analysis indicates that cotton growers were willing to pay for extension services with 2.57 mean value and standard deviation 0.99, which depicted the opportunity for private extension system in cotton-zone only. Similarly, in case of rice-zone the mean value was 2.70 with standard deviation 0.79 indicating an opportunity for paid extension services. In central-mixed-zone the mean values for all crops were below 2 which reflect the threat for private extension. It is clear from the table 1 that overall mean values of all crops concerning WTP were below 2 except wheat crop. This means that if private sector intended to provide extension services

Table 1. Frequency distribution, mean and standard deviation regarding farmers' willingness to pay for advisory service concerning agronomic practices of various crops as reported by the respondents

Advisory services regarding crop	Strongly unwilling		Unwilling		Willing		Strongly willing		Central Tendency	
	f	%	f	%	f	%	f	%	M	SD
i. Cotton Zone										
Cotton	26	19.1	31	22.8	55	40.4	24	17.6	2.57	0.99
Wheat	44	32.4	31	22.8	45	33.1	16	11.1	2.24	1.04
Rice	114	83.6	10	7.4	8	5.9	4	2.9	1.28	0.71
Sugarcane	60	44.1	23	16.9	41	30.1	12	8.8	2.04	1.05
Maize	122	89.7	10	7.4	3	2.2	1	0.7	1.14	0.46
Fruit	121	89	3	2.2	8	5.9	4	2.9	1.23	0.69
Vegetables	109	80.1	3	2.2	19	14	5	3.7	1.41	0.86
ii. Rice Zone										
Cotton	135	99.3	1	0.7	0	0	0	0	1.01	0.08
Wheat	18	13.2	20	14.7	86	63.2	12	8.8	2.68	0.81
Rice	16	11.8	21	15.4	87	64	12	8.8	2.70	0.79
Sugarcane	102	75	5	3.7	23	16.9	6	4.4	1.51	0.92
Maize	136	100	0	0	0	0	0	0	1.00	0.00
Fruit	136	100	0	0	0	0	0	0	1.00	0.00
Vegetables	111	81.6	4	2.9	21	15.4	0	0	1.34	0.73
iii. Central Mixed Zone										
Cotton	109	80.1	4	2.9	21	15.4	2	1.5	1.38	0.80
Wheat	72	52.9	10	7.4	53	39	1	0.7	1.88	0.97
Rice	111	81.6	6	4.4	18	13.2	1	0.7	1.33	0.73
Sugarcane	87	64	12	8.8	36	26.5	1	0.7	1.64	0.90
Maize	78	57.4	11	8.1	46	33.8	1	0.7	1.78	0.95
Fruit	130	95.6	4	2.9	1	0.7	1	0.7	1.07	0.35
Vegetables	105	77.2	4	2.9	26	19.1	1	0.7	1.43	0.82
Overall (Punjab)										
Cotton	270	66.2	36	8.8	76	18.6	26	6.4	1.65	0.99
Wheat	134	32.8	61	15	184	45.1	29	7.1	2.26	1.00
Rice	241	59.1	37	9.1	113	27.7	17	4.2	1.77	0.99
Sugarcane	249	61	40	9.8	100	24.5	19	4.7	1.73	0.98
Maize	336	82.4	21	5.1	49	12	2	0.5	1.31	0.70
Fruit	387	94.9	7	7.7	9	2.2	5	1.2	1.10	0.45
Vegetables	325	79.7	11	2.7	66	16.2	6	1.5	1.39	0.81
Willingness mean									1.60	0.84

Scale 1= strongly unwilling 2=unwilling 3=willing 4= strongly willing

by cost to the farmers there is little opportunity for it. Rather, it poses a threat for private extension. The results are in line with Saravanan (2001) who reported that farmers with less per capita income in subsistence agriculture may not allow them to pay for the extension service. Hanchinal *et al*. (2001) also reported that majority of farmers were unwilling to pay for the service rendered irrespective of agency. Sarvanan & Shivalinge (2000) reported that some farmers were approached for consultancy regarding technologies but they were not willing to pay for the services. Saravanan & Resmy (2000) also concluded that very few farmers were approached for consultancy service but they were reluctant to pay for the service.

The data presented in table 2 indicate that in cotton-zone, the mean value for WTP regarding protection technology of cotton crop was 2.69 with standard deviation of 0.99 indicating the diversity in the response of the respondents. This mean value reflects an opportunity in cotton-zone for private sector, which

Table 2. Frequency distribution, mean and standard deviation regarding farmers' willingness to pay for advisory service concerning plant protection technologies of various crops as reported by the respondents

Advisory services regarding crop	Strongly unwilling		Unwilling		Willing		Strongly willing		Central Tendency	
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*M*	*SD*
i. Cotton Zone										
Cotton	22	16.2	28	20.6	56	41.2	30	22.1	2.69	0.99
Wheat	40	29.4	28	20.6	46	33.8	22	16.2	2.37	1.07
Rice	114	83.8	3	2.2	10	7.4	9	6.6	1.37	0.88
Sugarcane	61	44.9	15	11	38	27.9	22	16.2	2.15	1.17
Maize	121	89	7	5.1	3	2.2	5	3.7	1.20	0.66
Fruit	120	88.2	3	2.2	8	5.9	5	3.7	1.25	0.73
Vegetables	112	82.4	18	13.2	6	4.4	0	0	1.40	0.88
ii. Rice Zone										
Cotton	136	100	0	0	0	0	0	0	1.00	0.00
Wheat	19	14	20	14.7	81	59.6	16	11.8	2.69	0.86
Rice	17	12.5	20	14.7	83	61	16	11.8	2.72	0.83
Sugarcane	102	75	5	3.7	23	16.9	6	4.4	1.51	0.93
Maize	135	99.3	1	0.7	0	0	0	0	1.01	0.17
Fruit	136	100	0	0	0	0	0	0	1.00	0.00
Vegetables	108	79.4	3	2.2	25	18.4	0	0	1.39	0.78
iii. Central Mixed Zone										
Cotton	106	77.9	6	4.4	22	16.2	2	1.5	1.41	0.81
Wheat	72	52.9	10	7.4	53	39	1	0.7	1.88	0.97
Rice	111	81.6	6	4.4	18	13.2	1	0.7	1.33	0.73
Sugarcane	87	64	12	8.8	36	26.5	1	0.7	1.64	0.90
Maize	79	58.1	11	8.1	45	33.1	1	0.7	1.76	0.94
Fruit	131	96.3	4	2.9	0	0	1	0.7	1.05	0.30
Vegetables	103	75.7	5	3.7	22	16.2	6	6	1.49	0.92
Overall (Punjab)										
Cotton	264	64.7	34	8.3	78	19.1	32	7.8	1.70	1.03
Wheat	131	32.1	58	14.2	180	44.1	39	9.6	2.31	1.02
Rice	242	59.3	29	7.1	111	27.2	26	6.5	1.81	1.04
Sugarcane	250	61.3	32	7.8	97	23.8	29	7.1	1.77	1.04
Maize	335	82.1	18	4.4	49	12	6	1.5	1.32	0.74
Fruit	387	94.9	7	1.7	8	2	6	1.5	1.10	0.47
Vegetables	323	79.2	8	2	65	15.9	12	2.9	1.43	0.86
Willingness mean									1.64	0.88

Scale: 1 = Strongly unwilling 2 = Unwilling 3 = Willing 4 = Strongly willing

could be exploited. Similarly in case of rice-zone, the mean value for WTP regarding protection technology of rice crop was 2.72 with standard deviation of 0.83. It also reflects the opportunity for private extension system. In central-mixed-zone, the mean values below 2 pose a threat for private extension system regarding fee for extension service. The crops such as maize, fruit and vegetable in three zones were also rated by the farmers below the mean value of 2 which expressed the threat for private extension system. The overall WTP mean values concerning all crops were rated below 2 except wheat crop, which reflects that farmer were not willing to pay for plant protection advisory services. It means to provide paid extension services there is trend toward threat in the field for private extension system. Chukwuone & Agwa (2005) concluded that farmers were willing to pay annually for technology delivery. Shekara (2001) reported that 30.2% of the respondents were willing to pay Rs. 25/- as fee to extension advisor followed by Rs.10/- (27.3%), Rs.50/- (21.0%), Rs.20/- (11.2%) and Rs. 100/- (10.3%). However, that also based on quality of extension services, crops cultivated and demand of farmers.

CONCLUSION

There are limited opportunities for specific crops in specific location. Farmers were willing to pay for advisory services concerning cotton and rice crops in cotton and rice-zone respectively. Overall, farmers were not willing to pay. It might be due to the fact that majority of the farmers are small farmers who have no capacity to pay for services. It is concluded that limited opportunities exist for private extension to provide fee based advisory services. Overall, it poses a threat for private sector extension system.

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