



Willingness to Pay for Extension Services Among the Grape Growers of Ranga Reddy District in Andhra Pradesh

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ABSTRACT

A study was conducted among the Grape growers to know their willingness for paid extension services. For the purpose of study sixty farmers were selected from six villages of three mandals in Ranga Reddy district of Andhra Pradesh state. Greater proportion of the respondents had high and medium categories of land holdings, innovativeness, achievement motivation, decision making ability, information seeking behaviour, deferred gratification, rationality, scientific orientation, economic orientation, value orientation, market orientation, management orientation, knowledge on enterprise and willingness to pay for extension services. The variables innovativeness, achievement motivation, decision making ability, information seeking behaviour, deferred gratification, rationality, scientific orientation, economic orientation, value orientation, market orientation, management orientation, knowledge on enterprise showed positive correlation with the willingness to pay for extension services.

Key words : Achievement Motivation, Decision Making, Extension, Innovativeness.

The number and types of organisations providing extension services increased during the last two decades. A great many private agencies like input agencies, agro-processing companies, NGOs, agri-business houses, consulting firms, etc emerged to provide extension services on payment basis. By knowing the farmers willingness to pay for extension services we can estimate the demand for private extension services. The demand for such private extension services is more in case of commercial crops which has market and export value, and grape is one such crop. Grape is extensively grown in one or two districts of Andhra Pradesh, among which Ranga Reddy district is one. Hence the study was planned with grape farmers of Ranga Reddy district in Andhra Pradesh. In a commercial crop like grape, technological aspects like varieties, propagation methods, layout, training, pruning, manuring, irrigation, soil analysis, water analysis, hormonal application, harvesting, general grape consultancy etc needs lot of skill and practice on the part of farmers. There is scope for private extension firms to teach and sell ideas in these technological aspects.

MATERIAL AND METHODS

The study was conducted in Ranga Reddy district in Andhra Pradesh state among the grape

farmers to know their “willingness to pay for extension services”. For the purpose of the study three mandals namely Moinabad, Shamshabad and Shameerpet were selected. From each mandal two villages were selected. Moinabad and Gandipet villages from Moinabad mandal; Shapur and Gollampalli village from Shamshabad mandal; Shameerpet and Kotwal villages from Shameerpet mandal were selected for the study. Ten respondents from each village, thus a total of 60 respondents were sampled for the study.

Thirteen independent variables namely land holding, innovativeness, achievement motivation, decision making ability, information seeking behaviour, deferred gratification, rationality, scientific orientation, economic orientation, value orientation, market orientation, management orientation, knowledge on enterprise and dependent variable ‘willingness to pay for extension services’ were considered for the study.

The respondents were grouped into high, medium and low categories based on Mean and Standard Deviation (SD). The categories were expressed in frequency and percentage. Pearson’s Correlation Coefficient (r) was calculated to find the relationship between independent and dependent variables. Multiple Linear Regression Analysis (MLR) was applied to study the effect of

independent variables over the dependent variable. Coefficient of multiple determination (R^2) was calculated to measure the extent of variation in dependent variable which can be explained by the independent variables (X_a) together. This was further extended to Step down analysis to know the variables contributing maximum variation through the elimination process.

RESULTS AND DISCUSSION

The Categorisation of respondents based on profile characteristics is presented in Table. 1. Two third of the respondents possessed high land holdings (66.67%) followed by medium (21.67%) and low (11.66%) land holdings. A more than two third of the respondents fell under high category (68.30%) of innovativeness followed by medium (25.00%) and low category (6.70%). These results were in conformity with the findings reported by Rokonuzzaman (2012). Less than two third of the respondents fell under high (63.30%) achievement motivation followed by medium (23.30%) and low (13.40%).

Less than half of the respondents had high (46.70%) decision making ability followed by medium (36.70%) and low (16.60%). These results were in conformity with the findings of Mishra *et. al* (2011). Two fifth of the respondents fall under high (40.00%) information seeking behaviour category, followed by medium (33.33%) and low (26.67%) categories. Half of the respondents fell under high (50.00%) category of deferred gratification followed by medium (33.30%) and low (16.70%) categories. Less than three fourth of the respondents had high (70.00%) rationality followed by medium (16.70%) and low (13.30%). Three fifth of the respondents fell under high (60.00%) category of scientific orientation followed medium (23.30%) and low (16.70%). The findings were in accordance with that reported by Khan *et. al.* (2007). Less than half of the respondents fell under high category (46.70%) followed by medium (40.00%) and low (13.30%) categories of economic orientation.

Half of the respondents fell under high (50.00%) value orientation, followed by medium (31.70%) and low (18.30%) categories. Less than three fourth of the respondents had high (70.00%) category of marketing orientation followed by medium (18.30%) and low categories (11.70%).

Less than half of the respondents fell under high category (46.70%) of management orientation followed by medium (36.70%) and low (16.60%) categories. A little more than two fifth of the respondents had high (41.70%) knowledge on enterprise, followed by medium (33.30%) and low (25.00%). The findings were in conformity with Acharya *et. al* (2005). More than half of the respondents fell under high (53.30%) willingness to pay for extension services followed by medium (31.70%) and low (15.00%).

It could be inferred that greater proportion of the respondents had high and medium categories of land holdings, innovativeness, achievement motivation, decision making ability, information seeking behaviour, deferred gratification, rationality, scientific orientation, economic orientation, value orientation, market orientation, management orientation and knowledge on enterprise. This indicates that a greater proportion of the grape farmers were rich and progressive, had high risk bearing ability and can invest more on the crop for more profits.

All these profile characteristics in general give us an understanding that they had got good profile which act as a basis for formulating any strategy related to them. In case of the dependent variable "willingness to pay for extension services", greater proportion of the respondents fell in medium and high categories. This means that they were ready to pay for extension services. As it is being commercially profitable crop, high technology oriented, most of the information is crop and field specific, provided the information is competent enough to meet their specific needs and requirements.

To study the relationship between the profile characteristics viz., land holding, innovativeness, achievement motivation, decision making ability, information seeking behaviour, deferred gratification, rationality, scientific orientation, economic orientation, value orientation, market orientation, management orientation, knowledge on enterprise and the dependent variable – willingness to pay for extension services, step down MLR analysis was carried out.

The variable like achievement motivation, decision making ability, information seeking behaviour, rationality, value orientation, marketing

Table 1. Categorisation of respondents based on their profile characteristics (n=60).

Variable	Category						Mean	SD
	High		Medium		Low			
	F	%	F	%	F	%		
Land holding	40	66.67	13	21.67	7	11.66	2.73	1.30
Innovativeness	41	68.30	15	25.00	4	6.70	2.73	1.25
Achievement Motivation	38	63.30	14	23.30	8	13.40	8.00	2.62
Decision Making Ability	28	46.70	22	36.70	10	16.60	14.23	5.29
Information Seeking Behaviour	24	40.00	20	33.33	16	26.67	3.83	2.01
Deferred Gratification	30	50.00	20	33.30	10	16.70	18.42	4.13
Rationality	42	70.00	10	16.70	8	13.30	3.45	1.23
Scientific Orientation	36	60.00	14	23.30	10	16.67	11.02	3.45
Economic Orientation	28	46.70	24	40.00	8	13.30	8.70	2.13
Value Orientation	30	50.00	19	31.70	11	18.30	5.88	1.87
Market Orientation	42	70.00	11	18.30	7	11.70	8.46	2.15
Management Orientation	28	46.70	22	36.70	10	16.60	18.27	4.37
Knowledge on Enterprise	25	41.70	20	33.30	15	25.00	9.93	2.13
Willingness to pay for extension services	32	53.30	19	31.70	9	15.00	26.43	3.14

orientation and knowledge on enterprise were contributing to the significant variation, whereas the other variables were non-significant at 0.05 as shown in Table. 2. The overall regression coefficient or coefficient of determination (R^2) is 0.8147 i.e. 81.47 per cent of the variation is contributed by these variables and the remaining 18.53 per cent of the variation is due to the external factors or the factors which were not controlled in the research design like climatic factors, prevailing pest and disease incidence rates on the crop etc. By this relation we can conclude that the farmers who had high profile characters were willing to pay for extension services that resulting in the high coefficient of determination.

All the selected independent variables showed positive correlation with the willingness to pay for extension services as depicted in Table. 3. Except for the variables like land holding and deferred gratification, rest of the variables had significant correlation with the farmers willingness to pay for extension services.

It could be concluded that a considerable proportion of the respondents were willing to pay for extension services. The private extension firms can capture this opportunity in a well planned manner so that they can sustain on long run among the grape farming communities. The consultants should concentrate more on information like

- i. Identifying and suggesting the domestic and export markets where the farmers could get more prices.
- ii. Institutional financial sources to meet the credit requirements of the farmers
- iii. Packaging and storing (post harvest handling) of the produce to increase the shelf life of the produce
- iv. Processing of the produce to increase the value addition to the produce which could fetch more profits to the farmers
- v. Regular contacts with the research stations to meet the seed requirement of the crop

Finally the private extension firms should see that the cost norms and charging patterns are uniform so as to avoid discrepancies, depending on the type of extension services.

Table 2. Regression analysis between independent variables and willingness to pay for extension services (n=60).

Variable		Regression coefficient	Standard error	t-value
Land Holding	(X ₁)	0.32210	0.4167	0.773
Innovativeness	(X ₂)	0.37974	0.9642	0.394
Achievement Motivation	(X ₃)	0.53132	0.2215	0.399
Decision Making Ability	(X ₄)	0.13025	0.1089	1.196
Information Seeking Behaviour	(X ₅)	1.62147	0.9295	1.744
Deferred Gratification	(X ₆)	-0.05306	0.1677	0.316
Rationality	(X ₇)	1.16734	1.0382	1.124
Scientific Orientation	(X ₈)	0.12874	0.3101	0.415
Economic Orientation	(X ₉)	-0.43356	0.4492	0.965
Value Orientation	(X ₁₀)	0.22830	0.2151	1.061
Market Orientation	(X ₁₁)	0.26393	0.1784	1.479
Management Orientation	(X ₁₂)	-0.08141	0.1561	0.522
Knowledge on Enterprise	(X ₁₃)	0.21590	0.1852	1.166
Intercept = -2.71271		R ² : 0.8147452	F= 15.5620556	
Step-down Variables		Regression coefficient	Standard error	t-value
Achievement motivation		0.47475	0.1865	2.546
Division making ability		0.12438	0.0994	1.251
Information Seeking Behaviour		1.25238	0.5746	1.179
Rationality		1.10134	0.5873	1.875
Value Orientation		0.23847	0.1980	1.204
Market Orientation		0.28112	0.1648	1.706
Knowledge on Enterprise		0.21460	0.1388	1.546
Level of Significance: 0.05 Intercept = -3.91285		R ² : 0.804531	F= 30.575317	

Table 3. Correlation analysis between dependent and independent variables (n=60).

S. No.	Variable	Correlation Coefficient	®
1.	Land holding	0.08894	NS
2.	Innovativeness	0.73855	**
3.	Achievement motivation	0.61071	**
4.	Decision making ability	0.59440	**
5.	Information seeking behaviour	0.84392	**
6.	Differed gratification	0.10321	NS
7.	Rationality	0.75686	**
8.	Scientific orientation	0.80851	**
9.	Economic orientation	0.72892	**
10.	Value orientation	0.60154	**
11.	Marketing orientation	0.66152	**
12.	Management orientation	0.62267	**
13.	Knowledge on enterprise	0.43258	**

**Significant at 5 per cent level NS: Non-Significant

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