

**Clientele Satisfaction of extension services provided  
by KVKs of Meghalaya**

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**.Abstract**

The Krishi Vigyan Kendras (KVKs) are very important organisations for promoting agricultural development at the district level through the various trainings and other development programmes they offer. One way of knowing how effective these KVKs are in catalysing district agricultural development is to study the clienteles' satisfaction of the farmers involved with those KVKs. In this study, 150 farmers across five districts of Meghalaya were interviewed to study the clienteles' satisfaction, it was found that the client farmers of the KVKs were highly satisfied with the outputs and services of the KVKs since the overall clienteles' satisfaction index was found to be 76.49. The farmers however did express a few problems such as non-timely delivery of relevant inputs/services, lack of innovative need based technologies and the lack of relevant market information. There should be more initiatives from the KVKs to provide regular market information to the farmers through the use of ICTs. Development programmes should be delivered timely so that farmers can plan their farming activities accordingly and more effort should be given by the KVKs to increase participation of farmers in programme planning and execution to help develop innovative need based solutions in accordance to the farmers' problems.

*Keywords: KVK, Clienteles' Satisfaction, Agricultural Organisations.*

## **1. INTRODUCTION**

The Krishi Vigyan Kendras (KVKs) are organisations at the district level with the main aim of addressing the importance of translational research for effective technology dissemination with regards to the changing agricultural scenario. The first KVK was set up in 1974 on pilot basis, under the administrative control of Tamil Nadu Agricultural University, Coimbatore and following that the Planning Committee approved the setting up of 18 KVKs during the Fifth Five Year Plan [1]. Today there are around 694 KVKs in the country.

KVK is the only institution at the district level in India for technological backstopping in agriculture and allied sectors. All KVKs are envisaged to reduce the time lag between generation of technology at the research institution and its application to the location specific farmer fields for increasing production, productivity and net farm income on a sustainable basis. To achieve this, KVKs mandated to perform i) On-Farm Testing (OFT) to assess the location specificity of agricultural technologies under various farming systems; ii) Frontline Demonstration (FLD) to showcase the specific benefits/worth of technologies on farmers' fields and develop the capacity of farmers and extension personnel to update their knowledge and skills in modern agricultural technologies and enterprises and iii) to work as Knowledge and Resource Centre for improving overall agricultural economy in the operational area by using Information Communication Technology (ICT) to conduct frontline extension programmes and provide farm advisories and other media on varied subjects of interest to farmers.

Like other extension service providers, Krishi Vigyan Kendras (KVKs) should have an increased emphasis on measuring quality of programmes and activities through client satisfaction survey because client's satisfaction is said to be a key indicator in determining the performance level of the organization. Customer satisfaction is important because it is a process which starts with the formation of customers' expectations and ends with communication of the obtained experience which may help in overall effectiveness in delivery of products and services by the organization [2]. Measuring customer satisfaction is also a way to

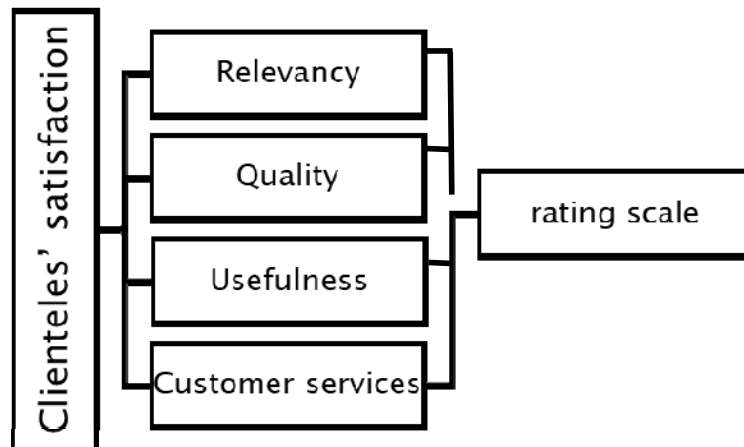
51 assess the quality of the outputs delivered by the organization as higher satisfaction of its  
 52 acquisition and use depends on the perceived quality of the product or service [3].

53 Assessment of the clientele's satisfaction will provide an insight to the  
 54 effectiveness of the KVKs in fulfilling the agricultural needs of the farmers of their respective  
 55 operational districts. Studying clientele's satisfaction may not only help uncover any constraints  
 56 in the delivery of outputs and services of the KVKs to the clients but also help document and  
 57 publish any recommendations made by the farmers which may help increase the organisational  
 58 efficiency of the KVKs with regards to agricultural development.

59 **2. METHODOLOGY**

60 In this study the clientele's satisfaction is operationalised as the degree to  
 61 which the clientele are satisfied or not satisfied with the services of the KVKs. Clientele  
 62 considered in this study are the farmers, rural youths and agripreneurs who have availed one or  
 63 the other services and inputs from the KVKs. For measuring clientele satisfaction, a scale  
 64 developed by [4] was adopted for the study. The scale studies clientele satisfaction in four  
 65 dimensions which are relevancy, quality, usefulness and customer service.  
 66

67 **Figure 1 Clienteles' satisfaction**  
 68 **framework.**



69  
 70 At present 7 out of the 11 districts of Meghalaya have established KVKs, 5 of  
 71 which are well established and 2 have rolled out recently. The study was conducted in five  
 72 districts having fully functional KVKs were selected. A village cluster adopted by the KVKs from  
 73 each district was selected to understand the perception of the respondents. From each village  
 74 cluster 30 respondents were interviewed making a total sample size of 150. Table 1 shows the  
 75 sampled districts, blocks and village clusters. Data were collected using pre-tested structured  
 76 interview schedule during 2017-18

77 **Table 1 Selection of villages**

S. No	District	Block	Villages
1	East Khasi Hills (EKH)	Mawryngkneng	Tynring, Mawpdang & Diengpash
2	West Khasi Hills (WKH)	Mairangbah	Mairangbah, Pyndeng Umiong & Mairang Mission
3	Ri Bhoi	BhoiRymbong	BhoiRymbong, Kyrdem & Nongthymmai
4	West Jaintia Hills (WJH)	Thadlaskien	Wahijer, Nialar & Liarnai
5	West Garo Hills (WGH)	Gembegre	Allabagre, Mengkagre & Gildinggre

78

79 **3. RESULTS AND DISCUSSION**

80 **3.1 Personal and Social Characteristics of the Client Farmers**

81 **3.1.1 Age**

82 The average age of the sampled client farmers of KVKs Meghalaya was 43.76  
 83 years with standard deviation of 10.05 years, meaning that majority of the farmers were middle  
 84 aged. The district with the oldest age group farmers was West Jaintia Hills at 47.47 years old,  
 85 whereas the youngest farmers belonged to West Garo Hills (39.13 years old).

86 **3.1.2 Sex**

87 There were more number of male respondents (55.50 %) than female  
 88 respondents (44.70 %) in the study, although by a very small difference.

89 **3.1.3 Education**

90 No farmers in the study were illiterate and only few farmers (4.60 %) had  
 91 University level education and another 8.00 per cent had higher secondary education. Majority  
 92 of the clientele farmers were having secondary education (39.33%) followed by primary  
 93 education (37.33 %) (Table 2). East Khasi Hills district had the highest percentage of farmers  
 94 with secondary education (50.00 %) and West Garo Hills district had the maximum number of  
 95 farmers with primary education (56.66 %).It was also found in a similar study that majority of  
 96 the trainees of KVKs had similar educational status[5].

97 **Table 2 Personal profile of the respondents**

Variable	Particulars	Frequency (Percentage)					
		EKH (n=30)	WKH (n=30)	Ri Bhoi (n=30)	WJH (n=30)	WGH (n=30)	Overall (N=150 )
<b>Age (Years)</b>	Mean	43.76	45.63	41.80	47.47	39.13	43.56
	SD	10.87	11.12	10.10	9.25	8.34	9.94
	Range	22-74	25-68	29-63	18-65	26-53	18-74
<b>Sex</b>	Male	16 (60.00)	19 (56.67)	17 (56.70)	21 (70.00)	20 (67.30)	83 (55.30)
	Female	14 (40.00)	11 (43.33)	13 (43.30)	9 (30.00)	10 (33.30)	67 (44.70)
<b>Education</b>	Illiterate	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
	Read and Write	3 (10.00)	1 (3.33)	7 (23.33)	3 (10.00)	2 (6.67)	16 (10.67)
	Primary	8 (26.67)	14 (46.67)	5 (16.67)	13 (43.34)	17 (56.66)	56 (37.33)
	Secondary	15 (50.00)	8 (26.67)	13 (43.33)	12 (40.00)	9 (30.00)	59 (39.33)
	Higher Secondary	3 (10.00)	4 (13.33)	5 (16.17)	1 (3.33)	0 (0.00)	12 (8.00)
	University	1 (3.33)	3 (10.00)	0 (0.00)	1 (3.33)	2 (6.67)	7 (4.67)
<b>Trainings received from the KVK</b>	Mean	8.06	8.70	24.83	6.43	5.43	10.69
	SD	3.61	5.05	9.09	2.67	3.45	8.88
	Range	2-18	3-25	10-40	2-10	2-15	2-40
<b>Overall Trainings Received</b>	Mean	11.20	11.43	31.43	8.50	7.07	13.92
	SD	4.81	6.03	10.84	3.93	4.04	10.98
	Range	3-20	5-30	12-50	3-15	3-18	3-50
<b>Social Participation Index</b>	Mean Index	35.24	37.62	38.17	34.52	31.34	35.38
	SD	4.07	5.40	4.70	4.37	6.09	5.05
	Range	0-100	0-100	0-100	0-100	0-100	0-100
<b>Information Seeking Behaviour Index</b>	Mean Index	53.67	62.56	65.00	56.89	54.77	58.58
	SD	3.11	4.03	3.73	2.72	5.34	4.07
	Range	0-100	0-100	0-100	0-100	0-100	0-100
<b>Farm Infrastructure Index</b>	Mean Index	62.50	67.91	66.52	66.45	66.95	52.87
	SD	1.39	2.23	2.11	1.73	2.33	1.99
	Range	0-100	0-100	0-100	0-100	0-100	0-100

99 **3.1.4 Trainings received from the KVKs**

100 From Table 2 the average number of trainings received from the KVKs by the  
101 clients in the last 3 years was 10.69 per person. Trainings were provided regularly to the  
102 farmers, because it was one of the important mandates of the KVKs and it is a predictable  
103 variable for the development of entrepreneurship of the trained farmer [6]. Highest number of  
104 trainings was recorded in Ri Bhoi with an average number of trainings at 24.83, while the  
105 lowest was West Garo Hills at 5.43.

106 **3.1.5 Total Trainings Attended**

107 The average number of overall training attended by the respondents was  
108 relatively was 13.92 (Table 2). Clients of Ri Bhoi KVK had attended the highest number of  
109 trainings with an average of 31.43 trainings per person from various organisations. The high  
110 number of trained farmers in this district was due to the fact that there were many farmers'  
111 training and development organisations apart from the KVK viz., ICAR research Complex, State  
112 Institute for Rural Development (SIRD), The College of Post Graduate Studies in Agricultural  
113 Sciences (CPGS-AS), Regional Rural Training Centre (RRTC), etc. close to the vicinity of the  
114 sample villages of RiBhoi District. These farmers of Ri Bhoi were also trained in other central  
115 schemes of the ICAR including NICRA (National Initiative for Climate Resilient Agriculture) and  
116 some of the farmers were also part of the governing body in various schemes of the KVK and  
117 ICAR. On the other hand the farmers of the district of WGH (7.07) were having least number of  
118 overall trainings from various organisations.

119 In the study it was found that majority of the trainings were conducted by the  
120 KVKs, State Department of Agriculture, ICAR and CAU to some extent. ATMA have also been  
121 giving more trainings in the past few years. Very few farmers received training from other  
122 organisations apart from these mentioned above except for the case of Ri Bhoi. Trainings were  
123 received mainly in the following domains viz., agricultural production, conservation agriculture,  
124 rural livelihood generation, organic agriculture, family health and cleanliness, etc.

125  
126 **3.1.6 Social Participation**

127 The overall social participation index was only 34.52 out of 100 (Table 2) which  
128 was similar to another study where the researcher reported that majority of the respondents  
129 had low social participation [7]. The low social participation score was due to the fact that  
130 majority of these farmers were only participants in the various events of social events. Except  
131 for the categories of local administration and farmers' group, majority of the farmers were only  
132 spectators in the events and had no part in the decision making because they did not hold any  
133 special posts in those events. The responding farmers were most socially active with respect  
134 to the local administration and their corresponding farmer group meetings

135 **3.1.7 Information seeking behaviour**

136 The information seeking behaviour index was 56.58 out of 100 which was  
137 similar to the findings of another research [5]. The district with the highest information seeking  
138 behaviour index was Ri Bhoi at 56.69 (Table 2).The most popular sources for seeking  
139 information by the respondents are from farmer groups, farmer colleagues and local leaders  
140 (progressive farmers) followed by KVK scientists. In the case of personal choices with respect  
141 to information seeking behaviour other Universities (apart from CAU) and NGOs had the lowest  
142 score index. The respondents also opined that radio and newspaper were the two most popular  
143 sources of information from impersonal sources.

144 **3.1.8 Farm Infrastructure**

145 For farm infrastructure, the district of WKH was having highest farm  
146 infrastructure index of 67.91 (Table 2). The overall farm infrastructure index for Meghalaya was  
147 52.87 showing they had medium farm infrastructure. Similarly, it was also found that the  
148 respondents of a similar study of the KVKs of Mizoram, were also having medium level of farm  
149 infrastructure [8].

150  
151 **3.2 Clients' satisfaction regarding the outputs and services of the KVKs**

152  
153 The clientele's satisfaction index was calculated as the percentage of the cumulative clientele  
154 score to the maximum obtainable score. The KVK results are presented in Figure 2. It can be  
155 observed that overall clientele's satisfaction index for clientele farmers of KVKs in Meghalaya  
156 was found to be 76.49, indicating high satisfaction with the outputs and services of the KVKs  
157 (figure 2) which were similar to other studies of similar nature [4, 9]. It was also seen that WKH

158 clientele had the highest satisfaction index (80.33) while WJH has the lowest index (74.60).  
 159 When grouping the clienteles into four categories (highly dissatisfied; not satisfied; satisfied and  
 160 highly satisfied) base on their satisfaction it was observed that in all the districts there were no  
 161 respondent who were below the satisfied category (Table 3). It was seen for the whole state  
 162 62.70 per cent of the respondents were highly satisfied with the outputs and services of the  
 163 KVKs. It was also noted that the KVK of East Khasi Hills district has the highest percentage of  
 164 highly satisfied farmers (73.30 per cent). A study in Ethiopia similarly showed that about 55% of  
 165 the farmers were satisfied with the extension services [10].

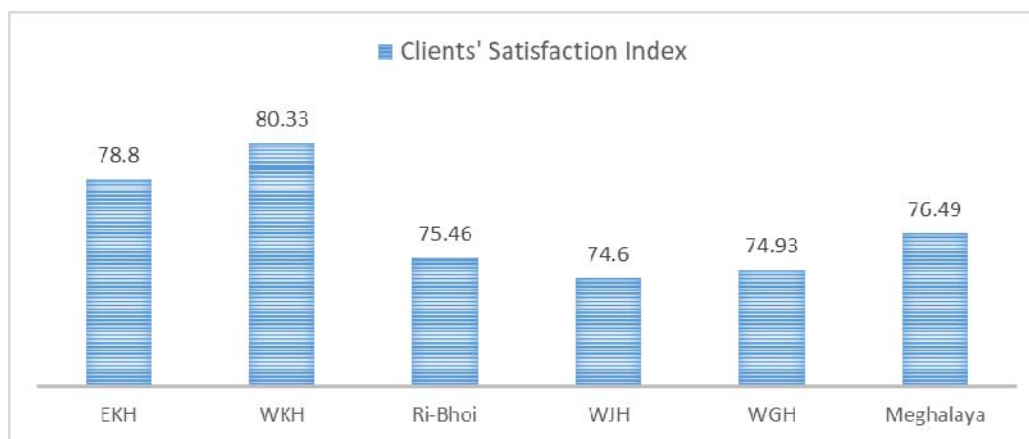
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167 **Table 3 Distribution of respondents according to their level of clientele satisfaction**  
 168 **Index (N=150)**

Clienteles' Satisfaction Categories	EKH (n=30)	WKH (n=30)	Ri Bhoi (n=30)	WJH (n=30)	WGH (n=30)	Overall (N=150)
	Frequency (Percentage)					
Highly dissatisfied (<25)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Dissatisfied (25-49)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Satisfied (50-75)	8 (26.70)	10 (33.30)	14 (46.70)	11 (36.70)	13 (43.30)	56 (37.30)
Highly satisfied (>75)	22 (73.30)	20 (66.70)	16 (53.30)	19 (63.30)	17 (56.70)	94 (62.70)
Mean CSI	78.80	80.33	75.46	74.60	74.93	76.49

169

170 **Figure 2 Clients' satisfaction regarding the outputs and services of the KVKs**



171

172

173 The dimension and item wise clientele satisfaction score are provided for each KVK in  
 174 Table 5 and is discussed comprehensively in the following section.

175 **Table 4 Dimension and item wise clientele satisfaction of the different KVKs (n=50)**

S. No	Particulars	EKH	WKH	Ri Bhoi	WJH	WGH	Meghalaya
		Clients Satisfaction Index					
<b>A. Relevancy</b>							
1	Distributes relevant literature	93.33	98.33	90.00	91.00	99.50	95.00
2	Services are compatible with the overall farming system	78.33	83.33	78.33	81.00	80.00	79.67
3	Services exhibit more	90.00	88.33	88.33	90.00	79.00	87.33

	practicability						
4	Timely availability of relevant inputs is difficult	56.67	61.67	56.67	36.67	55.00	53.33
5	Provides relevant market information	16.67	23.33	16.67	18.50	15.00	17.67
6	Services are farmers need based	78.33	85.00	73.33	79.50	66.67	76.33
7	<b>Overall Relevancy (Max 12)</b>	<b>68.89</b>	<b>70.00</b>	<b>67.25</b>	<b>65.55</b>	<b>65.83</b>	<b>67.50</b>
<b>B. Quality</b>							
8	Information provided is up to date	78.33	80.00	78.33	76.50	81.67	79.33
9	Ensure unbiased information	91.67	95.00	91.67	93.50	86.67	91.33
10	Employs appropriate teaching methods	78.33	81.67	80.00	75.00	70.00	77.67
11	Training and communication support	81.67	81.67	78.33	85.00	73.33	79.33
12	Subject matter presented is well organized	80.00	76.67	80.00	84.00	78.33	79.00
13	Ensure timely services	58.33	65.00	36.67	17.50	61.67	47.00
14	<b>Overall Quality (Max 12)</b>	<b>78.05</b>	<b>80.00</b>	<b>74.16</b>	<b>76.55</b>	<b>75.27</b>	<b>75.60</b>
<b>C. Usefulness</b>							
15	Creates general agricultural development awareness	88.33	91.67	90.00	92.00	85.00	88.67
16	Impart information on routine old technologies	48.33	53.33	48.33	45.00	46.67	49.00
17	Provide help to make timely decision	61.67	71.67	63.33	60.00	65.00	64.67
18	Help to solve farming problems	95.00	90.00	95.00	96.50	81.67	91.33
19	Promotes eco-friendly and sustainable technology transfer	48.33	56.67	46.67	47.00	50.00	50.00
20	Develops vocational efficiency	86.67	88.33	86.67	88.00	78.33	85.33
21	Develops new form of clientele groups	86.67	81.67	81.67	46.67	80.00	75.33
22	<b>Overall Usefulness (Max 14)</b>	<b>73.57</b>	<b>76.19</b>	<b>73.09</b>	<b>67.86</b>	<b>69.52</b>	<b>71.66</b>
<b>D. Customer Service</b>							
23	Friendly and courteous scientific and technical staff	93.33	90.00	96.67	89.50	90.00	92.67
24	Farm visits are convenient for farmers	63.33	61.67	66.67	61.67	68.33	64.67
25	KVK staff take care on farmers	95.00	86.67	98.33	94.50	80.00	91.00
26	KVK scientific and technical staff are motivated to serve	96.67	93.33	90.00	95.00	78.33	91.00
27	Ensure regular training and continuous farm visits	81.67	85.00	85.00	81.67	76.67	82.00
28	Services are flexible in nature	63.33	78.33	65.00	68.33	70.00	68.00

29	KVK scientific and technical staff are less accountable to the farmers	80.00	80.00	75.00	78.33	76.67	78.33
30	<b>Overall Customer Service (Max 12)</b>	<b>95.56</b>	<b>95.83</b>	<b>96.11</b>	<b>95.55</b>	<b>90.00</b>	<b>92.95</b>
31	<b>Total Satisfaction (Max 50)</b>	<b>78.80</b>	<b>80.33</b>	<b>75.46</b>	<b>74.60</b>	<b>74.93</b>	<b>76.49</b>

176 *Clients Satisfaction Index\* <25=highly dissatisfied; 25-49=not satisfied; 50-75=satisfied;*  
177 *>75=highly satisfied*

### 178 **3.2.1 Relevancy**

179 With respect to relevancy category the clientele's satisfaction index (CSI) for  
180 Meghalaya was 67.50 showing that the clients were satisfied with this category. But even so,  
181 the respondents were opining their problems of not timely receiving relevant inputs (55.33) and  
182 the lack of relevant market information (17.67). The farmers wish for more innovative initiatives  
183 to provide market information to them, so that they can plan their farming accordingly (table 5).  
184 Not just KVKs, but cooperatives, NGOs, panchayats and the media must join hands in the  
185 transmission of knowledge and information to provide better market connectivity. Other  
186 marketing initiatives of the State Government such as the 1917 iTEAMS which links buyers and  
187 sellers of agricultural goods and Meghalaya Agricultural Marketing portal can also be  
188 introduced to the farmers of the KVKs to help connect the farmers with potential buyers and also  
189 to keep the farmers updated with the latest price trends.

### 190 **3.2.2 Quality**

191 For the category of Quality, the clientele's satisfaction index for Meghalaya was  
192 observed to be 75.60, showing high satisfaction which was similar to another study of [11]  
193 regarding quality of extension services. In this category the farmers only complained that  
194 services should be timelier according to their cropping schedule showing a CSI of 47.00  
195 indicating that the clients were not satisfied with this aspect of quality (Table 5). For example,  
196 the trainings and other capacity building programmes on particular crops should be given  
197 before the start of the cropping season. The reason why some programmes of the KVKs were  
198 delayed was mainly due to the reason of untimely release of funds and lack of man power.  
199 Therefore this aspect of clientele's satisfaction can be addresses only with the help of the  
200 parent institutions by incorporating policies which will help the KVKs receive timely funds and  
201 sufficient man power.

### 202 **3.2.3 Usefulness**

203 In case of the category Usefulness, the clientele's satisfaction index for  
204 Meghalaya was 71.66 and overall farmers were satisfied with the services and outputs relating  
205 to this (table 5). They were happy with the agricultural development awareness and how the  
206 KVKs helped them develop vocational efficiency. The satisfaction of the contents and quality of  
207 trainings resulted on how useful the trainings were in providing significant gain of knowledge  
208 [12, 13]. However there were aspects of usefulness that the farmers wished there were  
209 improvements. The KVKs sometimes tend to teach routine old technologies (CSI, 49.00) which  
210 were already taught by other organisations like the ICAR of State Agricultural department.  
211 Proper pre training assessment of the participants should be incorporated to prevent duplicity of  
212 trainings. It was also revealed that sometimes farmers found it difficult to get help from KVKs to  
213 make timely decisions (CSI, 64.67) due to the fact that the KVKs were far from the villages for  
214 farmers to visit regularly and also due to the sheer number of grievances by farmers which  
215 cannot be covered by the low number of man power in the KVKs. The promotion of eco-friendly  
216 and sustainable technology(CSI, 50.00) got mixed rating from the farmers, because on one  
217 hand some of them felt that there should be training to increase the knowledge of  
218 fertilizer/pesticides and their effects while others felt that production aspects were more  
219 important than eco-friendliness of technologies.

### 220 **3.2.4 Customer Service**

221 Lastly, for the category of customer services of the clientele's satisfaction index  
222 for Meghalaya was highest amongst all the categories at 92.95 (table 5). The farmers were very

223 satisfied with the customer services the KVKs offer. They felt that amongst all the agricultural  
 224 development organisation, the KVKs were the easiest to approach and seek assistance for any  
 225 farming problems. The farmers only opined that there can be improvement in the aspects of  
 226 convenience of farm visits for farmers and more flexibility in the services of the KVK, which  
 227 were having a CSI of 64.67 and 68.00 respectively. A study on KVKs of Mizoram also  
 228 communicated that the results were evidence that the clients were satisfied regarding KVK  
 229 outputs and services [8]. The farmers knew almost all the employees personally making  
 230 communication intimately more engaging and thus gives them more confidence and assurance  
 231 in trying and adopting new technologies.

### 232 **3.3Relation between Clienteles' satisfaction and independent variables**

233 The relationship between the Clientele Satisfaction and selected clientele  
 234 variables were assessed using Spearman's correlation. It was found that clienteles' satisfaction  
 235 was positively related only to the variables number of trainings (provided by the KVKs and  
 236 overall training attended), social participation and information seeking behaviour (table 5). The  
 237 number of trainings (provided by the KVKs and overall training attended), had a positive  
 238 relationship with clienteles' satisfaction indicating that the more training the respondents  
 239 received the more they were satisfied with the services of the KVKs. In a similar study it was  
 240 found that majority of the farmer clients were satisfied and perceived trainings by the KVKs as  
 241 very effective [14]. The effectiveness of trainings may not only develop the capacity of the  
 242 farmers but can also open them up to understanding the contribution of those KVKs toward  
 243 their agricultural development as farmers will view trainings as essential for personal and  
 244 economic development due to increased adoption of improved agricultural technology [15].

245 **Table 5 Relationship between clienteles' satisfaction and independent variables**

S. No.	Variables	Clienteles' Satisfaction Spearman's Correlation Coefficient
1.	Age	-0.048
2.	Sex	0.052
3.	Education	1.36
4.	Trainings received from KVK	<b>.221**</b>
5.	Overall Trainings received	<b>0.241**</b>
6.	Social participation	<b>0.399**</b>
7.	Information Seeking Behaviour	<b>0.358**</b>
8.	Farm Infrastructure	.158

246 **\*\*1 percent level of significance**

247 The positive relationship between social participation and clienteles'  
 248 satisfaction may be due to the reason that the farmers with higher social participation are more  
 249 involved with the KVKs in different agricultural development activities and hence received more  
 250 benefit than those who are seldom participative in the said activities. Farmers participating with  
 251 development agencies had better impact through training, which resulted in relatively more  
 252 adoption than non-participative farmer [16]. It was also reported in a similar study that the  
 253 number of contacts of farmers with development agencies had a significant relationship with  
 254 impact of training [5].

255 Similarly a higher information seeking behaviour with the KVKs and similar  
 256 organisations may help them seek solutions to problems therefore making them more  
 257 mitigating in terms of their difficulties Positive and significant relationship of clientele  
 258 satisfaction with information seeking behaviour was also reported in another study regarding  
 259 KVKs of Mizoram [8]. Those farmers which are seeking information tend to be more innovative  
 260 than the ones who do not seek professional assistance and rely only on luck and chance for



261 good agricultural production. The former become more satisfied with the KVKs advisory when  
262 they observe they can solve some of their problems. Therefore this may be the reason that  
263 there was a positive relationship between information seeking behaviour and clientele's  
264 satisfaction which was also reported in another study that sources of information also had a  
265 significant relationship with impact of trainings and solving agricultural problems [5].  
266

267 Other variables such as age, education, sex and farm infrastructure had no relationship with  
268 clientele's satisfaction. It was also revealed in a similar study that in case of public extension  
269 clientele education had a significant relationship with clientele satisfaction [17] while another  
270 study done by [9] found no such relation.

271 Also contrary to the study [18] found farmers' gender to be linked with  
272 Extension service satisfaction and outcomes and [18] revealed that farmers' age, gender and  
273 education level significantly influenced farmers' level of satisfaction.

274 It was found in the research that the KVKs did not choose farmers as clients for  
275 their services and outputs based on these variables. Farmers from various socio-economic  
276 backgrounds attend trainings and receive outputs and services relatively similar, hence making  
277 the assumptions that one type of farmers (with respect to these variables) getting more from  
278 the development activities of the KVK was not valid in this research.

#### 279 **4. CONCLUSION**

280 Clientele's satisfaction assessment of the KVKs in this study has not only  
281 showed the areas where the farmers were satisfied but also uncovered several constraints  
282 regarding delivery of services and outputs by the KVKs. The need of sound market information  
283 and assistance was shown to be imperative and provision of the same can be done through  
284 use of ICTs and linkages with other organisations such as the iTEAMs. Parent Institutions  
285 should fill up the vacant posts of the KVKs and release funds sooner to the KVKs so that they  
286 can timely and effectively provide their output and services to the farmers. Pre-training  
287 assessment should be of utmost importance so that duplicity of effort is avoided. These  
288 problems uncovered should be addresses so that the KVKs can increase its effectiveness in  
289 agricultural development. Clientele's, satisfaction study is very important not only because it  
290 uncovers the performance of the organisations and where they needed to improve but also  
291 because it is a platform where farmers can voice their needs to the development organisation.  
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