Original Research Article

Clientele Satisfaction of extension services provided by KVKs of Meghalaya

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. Satisfaction is defined as a person's feeling of pleasure or disappointment resulting from comparing to his or her expectations in relation to a product's perceived performance or outcome [2]. 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 [3]. According to [4], perceived quality, which forms a view of the consumer about the product is a very important factor for customer satisfaction. Measuring customer satisfaction is also a way to assess the quality of the outputs delivered by the organization as higher satisfaction of its acquisition and use depends on the perceived quality of the product or service [4]. But quality and satisfaction although related, are not the same phenomenon. Satisfaction is also viewed as the degree of consumption related fulfillment provided by a product, service or experience [5]. Satisfaction is more consumption based, which differs from quality provided by the firm which is more of a process or transactional based phenomenon. This means that satisfaction here is based on frequent positive experiences instead of the one time the service interaction occurs.

One popular model of service quality is known as SERVQUAL [6]. This scale operationalizes service quality by calculating the difference between expectations and perceptions among the five dimensions which although not the same, have similarities to the dimensions of the methodology used in the present study.

- Tangibles: Physical facilities, appearance of personnel and equipment
- Reliability: Ability to perform the promised service accurately and dependably
- Responsiveness: Willingness to help clients and provide quick service
- Assurance: Knowledge and politeness of employees and their ability to inspire loyalty and confidence
- Empathy: Caring and personal attention that the organisation provides to its clients

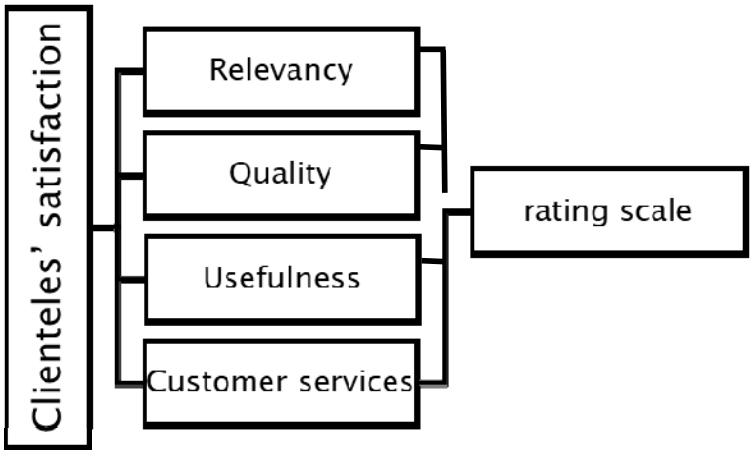
The dimensions which were taken in the study included relevancy, quality, usefulness and customer service which do encompass some of the dimensions of SERVQUAL but is aimed at studying particularly organisations related to non-profit/ development activities.

Assessment of the clienteles' satisfaction will help provide an insight to the effectiveness of the KVKs (beyond only assessing the quality of the service) in fulfilling the agricultural needs of the farmers of their respective operational districts because studying clienteles' satisfaction may not only help uncover any constraints in the delivery of outputs and services of the KVKs to the clients but also help document and publish any recommendations made by the farmers which may help increase the organisational efficiency of the KVKs with regards to agricultural development. This study is different for previous studies since it assessed the clienteles' satisfaction of only one type of organisation but included all the functioning KVKs in the state of Meghalaya and not just a selected few, to attain a more comprehensive and complete understanding of the subject.

2. METHODOLOGY

In this study the clienteles' satisfaction is operationalised as the degree to which the clientele are satisfied or not satisfied with the services of the KVKs. Clientele considered in this study are the farmers, rural youths and agripreneurs who have availed one or the other services and inputs from the KVKs. For measuring clientele satisfaction, a scale developed by [7] was adopted for the study. The scale studies clientele satisfaction in four dimensions which are relevancy, quality, usefulness and customer service.

Figure 1 Clienteles' satisfaction framework.



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

Table 1 Selection of villages

S. No	District	Block	Villages
1	East Khasi Hills (EKH)	Mawryngkneng	Tynring, Mawpdang & Diengpasoh
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

3. RESULTS AND DISCUSSION

3.1 Personal and Social Characteristics of the Client Farmers

3.1.1 Age

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

3.1.2 Sex

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

3.1.3 Education

No farmers in the study were illiterate and only few farmers (4.60 %) had University level education and another 8.00 per cent had higher secondary education. Majority of the clientele farmers were having secondary education (39.33%) followed by primary education (37.33 %) (Table 2). East Khasi Hills district had the highest percentage of farmers with secondary education (50.00 %) and West Garo Hills district had the maximum number of farmers with primary education (56.66 %).It was also found in a similar study that majority of the trainees of KVKs had similar educational status [8].

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)
Age (Years)	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
Sex	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)
Education	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)
Trainings received from the KVK	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
Overall Trainings Received	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
Social Participation Index	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
Information Seeking Behaviour Index	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
Farm Infrastructure Index	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

3.1.4 Trainings received from the KVKs

From Table 2 the average number of trainings received from the KVKs by the clients in the last 3 years was 10.69 per person. Trainings were provided regularly to the farmers, because it was one of the important mandates of the KVKs and it is a predictable variable for the development of entrepreneurship of the trained farmer [9]. Highest number of trainings was recorded in Ri Bhoi with an average number of trainings at 24.83, while the lowest was West Garo Hills at 5.43.

3.1.5 Total Trainings Attended

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

of the KVK and ICAR. On the other hand the farmers of the district of WGH (7.07) were having least number of overall trainings from various organisations.

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

3.1.6 Social Participation

The overall social participation index was only 34.52 out of 100 (Table 2) which was similar to another study where the researcher reported that majority of the respondents had low social participation [10]. The low social participation score was due to the fact that majority of these farmers were only participants in the various events of social events. Except for the categories of local administration and farmers' group, majority of the farmers were only spectators in the events and had no part in the decision making because they did not hold any special posts in those events. The responding farmers were most socially active with respect to the local administration and their corresponding farmer group meetings

3.1.7 Information seeking behaviour

The information seeking behaviour index was 56.58 out of 100 which was similar to the findings of another research [8]. The district with the highest information seeking behaviour index was Ri Bhoi at 56.69 (Table 2).The most popular sources for seeking information by the respondents are from farmer groups, farmer colleagues and local leaders (progressive farmers) followed by KVK scientists. In the case of personal choices with respect to information seeking behaviour other Universities (apart from CAU) and NGOs had the lowest score index. The respondents also opined that radio and newspaper were the two most popular sources of information from impersonal sources.

3.1.8 Farm Infrastructure

For farm infrastructure, the district of WKH was having highest farm infrastructure index of 67.91 (Table 2). The overall farm infrastructure index for Meghalaya was 52.87 showing they had medium farm infrastructure. Similarly, it was also found that the respondents of a similar study of the KVKs of Mizoram, were also having medium level of farm infrastructure [11].

3.2 Clients' satisfaction regarding the outputs and services of the KVKs

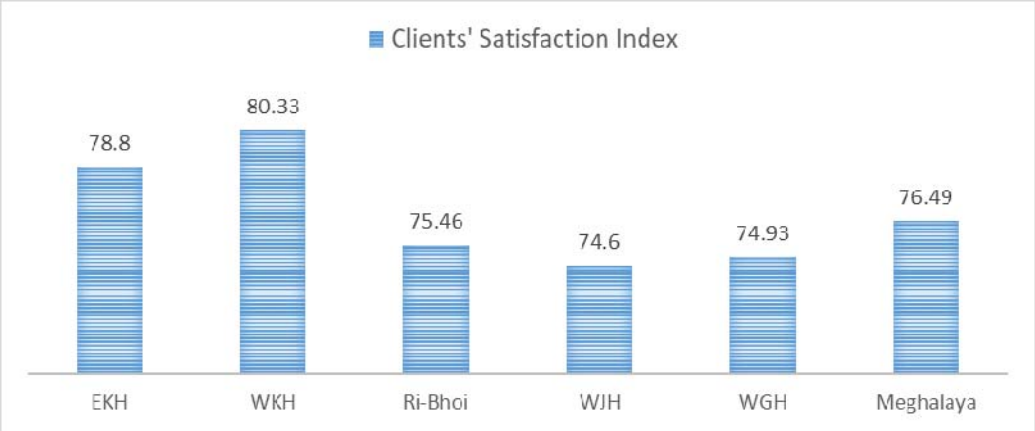
The clienteles' satisfaction index was calculated as the percentage of the cumulative clientele score to the maximum obtainable score. The KVK results are presented in Figure 2. It can be observed that overall clienteles' satisfaction index for clientele farmers of KVKs in Meghalaya was found to be 76.49, indicating high satisfaction with the outputs and services of the KVKs (figure 2) which were similar to other studies of similar nature [7, 12]. Another study in Mizoram found that only 17.78 per cent of the respondents were highly satisfied [11]. It was also seen that WKH clientele had the highest satisfaction index (80.33) while WJH has the lowest index (74.60). When grouping the clienteles into four categories (highly dissatisfied; not satisfied; satisfied and highly satisfied) base on their satisfaction it was observed that in all the districts there were no respondent who were below the satisfied category (Table 3). It was seen for the whole state 62.70 per cent of the respondents were highly satisfied with the outputs and services of the KVKs. It was also noted that the KVK of East Khasi Hills district has the highest percentage of highly satisfied farmers (73.30 per cent). A study in Ethiopia similarly showed that about 55% of the farmers were satisfied with the extension services [13].

Table 3 Distribution of respondents according to their level of clientele satisfaction 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	0	0	0	0	0	0

(<25)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(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

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



The dimension and item wise clientele satisfaction score are provided for each KVK in Table 4 and is discussed comprehensively in the following section.

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					
A. Relevancy							
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 practicability	90.00	88.33	88.33	90.00	79.00	87.33
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	**Overall Relevancy (Max 12)**	**68.89**	**70.00**	**67.25**	**65.55**	**65.83**	**67.50**
B. Quality							
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	**Overall Quality (Max 12)**	**78.05**	**80.00**	**74.16**	**76.55**	**75.27**	**75.60**
C. Usefulness							
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	**Overall Usefulness (Max 14)**	**73.57**	**76.19**	**73.09**	**67.86**	**69.52**	**71.66**
D. Customer Service							
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 accountable to the farmers	80.00	80.00	75.00	78.33	76.67	78.33
30	**Overall Customer Service (Max 12)**	**95.56**	**95.83**	**96.11**	**95.55**	**90.00**	**92.95**
31	**Total Satisfaction (Max 50)**	**78.80**	**80.33**	**75.46**	**74.60**	**74.93**	**76.49**

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

3.2.1 Relevancy

With respect to relevancy category the clienteles' satisfaction index (CSI) for Meghalaya was 67.50 showing that the clients were satisfied with this category. But even so, the respondents were opining their problems of not timely receiving relevant inputs (55.33) and the lack of relevant market information (17.67). In his study, it found that the results were

slightly different as practicability of services left a lot to be desired unlike this study [11]. The farmers wish for more innovative initiatives to provide market information to them, so that they can plan their farming accordingly (table 4). Not just KVKs, but cooperatives, NGOs, panchayats and the media must join hands in the transmission of knowledge and information to provide better market connectivity. Other marketing initiatives of the State Government such as the 1917 iTEAMS which links buyers and sellers of agricultural goods and Meghalaya Agricultural Marketing portal can also be introduced to the farmers of the KVKs to help connect the famers with potential buyers and also to keep the farmers updated with the latest price trends.

3.2.2 Quality

For the category of Quality, the clienteles' satisfaction index for Meghalaya was observed to be 75.60, showing high satisfaction which was similar to another study of [14] regarding quality of extension services. In this category the farmers only complained that services should be timelier according to their cropping schedule showing a CSI of 47.00 indicating that the clients were not satisfied with this aspect of quality (Table 4). For example, the trainings and other capacity building programmes on particular crops should be given before the start of the cropping season. The reason why some programmes of the KVKs were delayed was mainly due to the reason of untimely release of funds and lack of man power. Therefore this aspect of clienteles' satisfaction can be addresses only with the help of the parent institutions by incorporating policies which will help the KVKs receive timely funds and sufficient man power. It was found in their research that services was more-timely as compared to the findings of this study [11, 14].

3.2.3 Usefulness

In case of the category Usefulness, the clienteles' satisfaction index for Meghalaya was 71.66 and overall farmers were satisfied with the services and outputs relating to this (Table 4). They were happy with the agricultural development awareness and how the KVKs helped them develop vocational efficiency. The satisfaction of the contents and quality of trainings resulted on how useful the trainings were in providing significant gain of knowledge [15, 16]. However there were aspects of usefulness that the farmers wished there were improvements. The KVKs sometimes tend to teach routine old technologies (CSI, 49.00) which were already taught by other organisations like the ICAR of State Agricultural department. Proper pre training assessment of the participants should be incorporated to prevent duplicity of trainings. In his research, very few respondent agreed that the service providers were teaching routine old technology [12]. He also found that unlike the KVKs of Meghalaya, the institutions in his studies were not helping the farmer form SHGs and other farmer organisation. It was also revealed that sometimes farmers found it difficult to get help from KVKs to make timely decisions (CSI, 64.67) due to the fact that the KVKs were far from the villages for farmers to visit regularly and also due to the sheer number of grievances by farmers which cannot be covered by the low number of man power in the KVKs. The promotion of eco-friendly and sustainable technology(CSI, 50.00) got mixed rating from the farmers, because on one hand some of them felt that there should be training to increase the knowledge of fertilizer/pesticides and their effects while others felt that production aspects were more important than eco-friendliness of technologies.

3.2.4 Customer Service

Lastly, for the category of customer services of the clienteles' satisfaction index for Meghalaya was highest amongst all the categories at 92.95 (Table 4). The farmers were very satisfied with the costumer services the KVKs offer. They felt that amongst all the agricultural development organisation, the KVKs were the easiest to approach and seek assistance for any farming problems. The farmers only opined that there can be improvement in the aspects of convenience of farm visits for farmers and more flexibility in the services of the KVK, which were having a CSI of 64.67 and 68.00 respectively. A study on KVKs of Mizoram also communicated that the results were evidence that the clients were satisfied regarding KVK outputs and services [11]. The farmers knew almost all the employees personally making communication intimately more engaging and thus gives them more confidence and assurance in trying and adopting new technologies. Contrary to the study, [12] found that the respondent in his study felt that the extension organisations were not as accountable towards the welfare of the farmers.

3.3Relation between Clienteles' satisfaction and independent variables

The relationship between the Clientele Satisfaction and selected clientele variables were assessed using Spearman's correlation. It was found that clienteles' satisfaction was positively related only to the variables number of trainings (provided by the KVKs and overall training attended), social participation and information seeking behaviour (table 5). The number of trainings (provided by the KVKs and overall training attended), had a positive relationship with clienteles' satisfaction indicating that the more training the respondents received the more they were satisfied with the services of the KVKs. In a similar study it was found that majority of the farmer clients were satisfied and perceived trainings by the KVKs as very effective [17]. The effectiveness of trainings may not only develop the capacity of the farmers but can also open them up to understanding the contribution of those KVKs toward their agricultural development as farmers will view trainings as essential for personal and economic development due to increased adoption of improved agricultural technology [18].

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	0.136
4.	Trainings received from KVK	**.221****
5.	Overall Trainings received	**0.241****
6.	Social participation	**0.399****
7.	Information Seeking Behaviour	**0.358****
8.	Farm Infrastructure	.158

***1 percent level of significance*

The positive relationship between social participation and clienteles' satisfaction may be due to the reason that the farmers with higher social participation are more involved with the KVKs in different agricultural development activities and hence received more benefit than those who are seldom participative in the said activities. Farmers participating with development agencies had better impact through training, which resulted in relatively more adoption that non-participative farmer [19]. It was also reported in a similar study that the number of contacts of farmers with development agencies had a significant relationship with impact of training [8].

Similarly a higher information seeking behaviour with the KVKs and similar organisations may help them seek solutions to problems therefore making them more mitigating in terms of their difficulties Positive and significant relationship of clientele satisfaction with information seeking behaviour was also reported in another study regarding KVKs of Mizoram [11]. Those farmers which are seeking information tend to be more innovative than the ones who do not seek professional assistance and rely only on luck and chance for good agricultural production. The former become more satisfied with the KVKs advisory when they observe they can solve some of their problems. Therefore this may be the reason that there was a positive relationship between information seeking behaviour and clienteles' satisfaction which was also reported in another study that sources of information also had a significant relationship with impact of trainings and solving agricultural problems [8].

Other variables such as age, education, sex and farm infrastructure had no relationship with clienteles' satisfaction. It was also revealed in a similar study that in case of public extension

clientele education had a significant relationship with clientele satisfaction [20] while another study done by [9] found no such relation.

Also contrary to the study [21] found farmers' gender to be linked with Extension service satisfaction and outcomes. In another study [22] revealed that farmers' age, gender and education level significantly influenced farmers' level of satisfaction which was opposite to this study.

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

4. CONCLUSION

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

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