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Constraints in Utilization of Market Led Extension Practices by the Farmers

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Authors' contributions

This work was carried out in collaboration between both authors. Author CV designed interview schedule conducted the survey, involved in data collection, analysis, tabulation and writing the research paper. Author JGA is the chairman of the advisory committee involved in planning, constant monitoring throughout the study, analyzing and interpreting the results. Both authors read and approved the final manuscript.

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ABSTRACT

Market led extension is the market orientation of agriculture through extension, with a blend of economics, which aids in reaching the doorsteps of the farming community with the help of appropriate technologies. The present study was conducted with the objective of analyzing the constraints faced by the farmers in utilization of market led extension practices in grape, arecanut and maize crops. *Ex-post-facto* research design was used for carrying out the study. The study was conducted considering Uttara Kannada district for arecanut, Bagalkot and Vijayapura districts for grapes and Belagavi and Haveri districts for maize. The sample for the study was 240. The Garrett ranking technique was used to rank and analyze the constraints in utilization of market led extension practices as expressed by the farmers. The primary production constraint in all three crops was the higher cost of labour. Existence of numerous middlemen in the value chain was major marketing constraint in grapes, unstable market prices was major marketing constraint in arecanut and inadequate storage facilities which lead to distress sale was major marketing constraint in maize. The significant extension constraint was found to be lack of follow up activities by extension personnel in grapes and maize where as lack of credibility of online channels was significant extension constraint faced by arecanut growers.

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1. INTRODUCTION

The contribution of agriculture to the growth of Indian economy and overall development is vital. During the last six decades, the production-led extension system has resulted in increased farm production and has extended benefits for farmers. The area under cultivation and production of food grains which was 97.32 million hectares and 50.82 million tonnes during 1950-51 has increased to 123.94 million hectares and 284.95 million tonnes in 2018-19, respectively. The area under irrigation which was 18.10 per cent of total cultivable land has increased to 52.62 per cent [1]. The area under cultivation and total production of the horticultural crop was 12.77 million hectares and 76.56 million tonnes in 1991-92, is now increased to 25.43 million hectares and 311.71 million tonnes [2].

India's accomplishments in the farming sector are promising in some areas and states, but have remained below potential in various sectors. The task needs to be re-oriented in the light of changing environments and requirements, to address new challenges and to take advantage of new opportunities. This will require a shift in our approach and thinking towards farming from the "way of life" to the "entrepreneurial opportunity [3]."

Till today, most of our farmers sell their produce in ‘as is where basis’ without being aware of the market situation. The capacity building of farmers towards equipping them with crucial information about markets is of paramount necessity. Extension system should not only concentrate on the agricultural production but should also emphasize marketing for the holistic growth of the farmers. With the main thrust of extension agencies focused on production strategies till now, market led extension holds the key to the future. Market led extension is the ideal combination for reaching the doorsteps of farmers. With globalization of the market, farmers need to transform themselves from mere producers in the domestic market to producers cum sellers in the broader market sense to realize best returns on their investments, risks and efforts [4]. The focus of the extension functionaries needs to be extended beyond production and marketing. Farmers should be sensitized on various aspects of processing, value addition, market intelligence, export, branding, quality, consumer’s preference, and other marketing information. This will help the farming community to realize high returns for the produce, minimize the production cost and improve the product value and marketability [5].

Market led extension practices play a major role in building the capacity of the farmers to meet the emerging challenges in various level of farming and make the farmers to realize better prices to their farm produce [6]. The market-led extension will assist the farmers in solving the problems from planning the production till the produce reaches consumer. It is of utmost importance for the farmers to have knowledge about these practices and ultimate use of them. Keeping this in view, the study was conducted to analyze the constraints in utilization of market led extension practices by the farmers. The present study consists of three crops, namely grapes, arecanut and maize; the major fruit, plantation and cereal crop, respectively.

2. METHODOLOGY

2.1 Locale of the Study

The present study was conducted in Bagalkot, Belagavi, Haveri, Uttara Kannada and Vijayapura districts of Karnataka during 2020-21. Keeping in view, the highest area under the crop in University of Agricultural Sciences, Dharwad jurisdiction, Uttara Kannada district was selected for arecanut, Belagavi and Haveri for maize and Bagalkot and Vijayapura for grapes. Further, four taluks from Uttara Kannada (i.e., Sirsi, Siddapura, Yellapura and Honnavara), two taluks each from Belagavi (Gokak and Raibag), Haveri (Hirekeruru and Haveri), Bagalkot (Jamkhandi and Bagalkot) and Vijayapura (Indi and Vijayapura) were selected based on the area under cultivation of the respective crop. From each taluk, four villages (i.e. total 48 villages) were selected randomly. From each village, five farmers were selected using simple random sampling method to form a sample of 240.

2.2 Research Design

Ex-post-facto research design was followed for carrying out the study. It was chosen as appropriate research design as market led extension practices were already being practiced by the farmers and thus it could not be manipulated.

A structured interview schedule was developed by consulting experts and referring to the relevant literature. Pretesting of the schedule was carried out in the non-sample area for its practicability and relevancy. The data was collected from the respondents through personal interview method in an informal atmosphere.

2.3 Garrett Ranking Technique

During the investigation, respondents expressed various reasons which were limiting them from utilizing market led extension practices. The reasons were termed as constraints in the study. Garrett's ranking technique [7] was adopted to analyze the constraints faced by the farmers in the utilization of market led extension practices in the study area.

Respondents were asked to rank the constraints according to its degree of importance such that the most crucial constraint will be ranked first. The outcome, which was in the form of ranking, was converted into percent position by using the following formula:

$$\text{Percent position} = \frac{100\ (Rij - 0.5)}{\text{Nj}}$$

Where, Rij = Rank given for the ith variable by jth respondents
Nj = Number of variables ranked by jth respondents

The percent position estimated was converted into scores with the help of Garrett's table. The scores of each individual rank corresponding to that particular constraint were added and the mean values of score were calculated. Higher mean Garrett value indicated the higher degree of constraint.

3. RESULTS AND DISCUSSION

The results in Table 1, Table 2 and Table 3 highlighted the constraints faced by the farmers in utilizing market led extension practices in grapes, arecanut and maize, respectively. Higher cost of labour was a significant production constraint in all three crops with a mean Garrett

Table 1. Constraints in utilization of market led extension practices in grapes

		(n_1=80)	
Sl. No	**Constraints**	**Mean Garrett Score**	**Rank**
Production Dimension			
1	Higher cost of labour	65.61	4
2	Unavailability of required quality inputs	46.94	9
3	Insufficient infrastructure for processing and value addition	43.38	10
4	Small scale production that creates difficulty in attracting major markets	31.38	14
5	Lack of grading at producers level	30.31	15
Market Dimension			
6	Existence of numerous middle man in the value chain	74.98	1
7	Unstable market prices	74.66	2
8	Irregular demand from organized marketing sector	71.94	3
9	Lack of proper documentation	58.70	6
10	Inadequate awareness and experience to deal with the legal aspects of export marketing	50.74	8
11	Inadequate storage facility leading to distress sale	35.66	12
Extension Dimension			
12	Lack of follow up activities by extension personnel	61.90	5
13	Lack of farmers' sensitization for quality of produce and consumer needs	54.55	7
14	Scanty efforts for advisories regarding post harvest, marketing and export stages	41.15	11
15	Lack of credibility of online channels	31.89	13
16	Inadequate trained personnel for capacity building of farmers regarding market led extension	25.23	16

score of 65.61, 79.88 and 66.55, respectively because, in recent times, the availability of farm labour has been a major issue. Due to various employment guarantee schemes, there is a shift of youth towards the non-farming sector, creating a scarcity of farm labours. This has led to higher labour charges. Also, sometimes there is a need for skilled labours for carrying out operations like pruning in grapes and harvesting in arecanut. Such skilled labours are called from different places to carry out specialized work. Thus making higher expenses on labour. The similar findings were conferred by Naik et al. who reported higher labour charge was one of the major constraints encountered by the chilli growers during adoption of recommended chilli production practices [8].

Existence of numerous intermediaries in the value chain (74.98) of grapes was the primary marketing constraint for farmers growing grapes. Most of the farmers sell their produce to intermediaries owing to rigorous complexities in other marketing channels like strict quality parameters, long distance transportation, delayed payment and due to prior commitments made to them. The middlemen tend to exploit the farmers in the pretext of quality parameters and often take away the large chunk of profit. Shiralashetti and Hadapad (2016) also reported similar results [9]. The significant marketing constraint for arecanut growing farmers was unstable market prices (77.13). The prices of arecanut are highly volatile depending on the extent of crop loss occurred due to pest and disease incidence and demand from processing industries. The inadequate storage facility leading to distress sale (72.04) was the primary marketing constraint of maize growing farmers. The number of public godowns is restricted to few and is located at taluk headquarters. The farmers placed at distance villages faced problem during transportation and storage. The produce, when placed in private godowns brings higher charges and they also do not provide any warehouse receipts. Thus, farmers tend to sell their produce in distress at lesser profits. The outcomes are in line with the findings of Gohain and Singh [10].

Table 2. Constraints in utilization of market led extension practices in arecanut

		(n_2=80)	
Sl. No	**Constraints**	**Mean Garrett Score**	**Rank**
Production Dimension			
1	Higher cost of labour	79.88	1
2	Non availability of skilled labour	65.69	3
3	Higher incidence of pest and diseases	62.31	4
4	Unavailability of required quality inputs	45.15	8
5	Insufficient infrastructure for processing and value addition	18.63	13
Market Dimension			
6	Unstable market prices	77.13	2
7	Lack of proper documentation	54.25	6
8	Inadequate awareness and experience to deal with the legal aspects of export marketing	51.45	7
9	Existence of numerous middle man in the value chain	25.78	12
Extension Dimension			
10	Lack of credibility of online channels	55.30	5
11	Lack of follow up activities by extension personnel	42.25	9
12	Scanty efforts for advisories regarding post harvest, marketing and export stages	37.89	10
13	Inadequate trained personnel for capacity building of farmers regarding market led extension	34.31	11

Table 3. Constraints in utilization of market led extension practices in maize

Sl. No	Constraints	Mean Garrett Score (n_3=80)	Rank
Production Dimension			
1	Higher cost of labour	66.55	2
2	Small scale production that creates difficulty in attracting major markets	66.21	3
3	Insufficient infrastructure for processing and value addition	53.08	7
4	Lack of grading at producers level	51.95	8
5	Unavailability of required quality inputs	42.43	11
Market Dimension			
6	Inadequate storage facility leading to distress sale	72.04	1
7	Existence of numerous middle man in the value chain	62.08	4
8	Unstable market prices	58.44	5
9	Lack of proper documentation	38.80	12
10	Inadequate awareness and experience to deal with the legal aspects of export marketing	32.45	14
Extension Dimension			
11	Lack of follow up activities by extension personnel	58.05	6
12	Lack of credibility of online channels	49.31	9
13	Lack of farmers' sensitization for quality of produce and consumer needs	44.88	10
14	Scanty efforts for advisories regarding post harvest, marketing and export stages	34.40	13
15	Inadequate trained personnel for capacity building of farmers regarding market led extension	31.35	15

Lack of follow up activity by the extension personnel was found to be the critical extension dimension constraint among farmers growing grapes (61.90) and maize (58.05). Though many extension activities are well organized but they are poorly followed up. This dilutes the effectiveness of any extension effort. It is quite evident that there is a wider gap in farmer to extension personnel ratio because of which the primary focus has been limited to the one-way transfer of technology. A broader concept of agricultural extension, beyond enhancing agricultural productivity is yet to be implemented. Further, lack of credibility of online channels was major extension dimension constraints for arecanut growing farmers. These farmers have higher access to e-tools and try to obtain information on various marketing options online. Huge amount of information is available and it makes them difficult to choose the right and authentic information from various online sources. Similar findings were reported by Choudhary and Khan [11].

4. CONCLUSION

Though enormous efforts are being made in bridging the input and information gap between farmers and research centers, constraints still hinder in the utilization of modern technologies. Such constraints need to be addressed on an urgent basis in order to reduce the gap. In the present study, an attempt was made to study the constraints faced by the farmers in utilization of market led extension practices. The high cost of labour was the major constraint expressed by the farmers. To reduce the burden of labour cost, farmers should adopt farm mechanization. Though it is already in practice, it is restricted to fewer general operations due to limited availability of machinery at custom hiring centers. There is a need to increase the availability of machinery like harvesters at custom hiring centers. Necessary demonstrations and hands on training should be given to the farmers/ labours to operate such machinery. Numerous intermediaries in the value chain, especially in marketing is a major setback for the farmers in realizing the profits. Though the government has made efforts to overcome this set back by creating online marketing channels like e-NAM and other portals, in order to utilize such channels efficiently, there is a need to orient farmers and conduct capacity building programmes to make them understand and handle e-tools in the online platform.

CONSENT

As per international standard or university standard, participant's written consent has been collected and preserved by the authors.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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