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Operational feasibility perception of contract farming in Nagpur mandarin

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ABSTRACT

Nagpur mandarin orchards are concentrated mostly in the five districts of the Vidarbha region of Maharashtra. The present study was carried out during 2014-15 in the Nagpur district of Maharashtra state with the objective of ascertaining the grower's operational feasibility perception towards contract farming and find out the issues governing profitability. The total sample of 120 was derived from four talukas of Nagpur district using simple random sampling. The data collected through a structured interview schedule were analyzed using the t-test of significance of difference between sample and population means. The study revealed that education (t=3.406) showed significant relationship regarding the perceived feasibility of contract farming and the total annual income from citrus (t=2.007) at 5 per cent level of significance. The guaranteed and fixed pricing structures in contract farming system was perceived as the main reason which appealed to the maximum respondents (RBQ=340).The shield against market fluctuations ranked second (RBQ=328) in terms of relative advantages. The mandarin growers like any other farmers expected assured price to their farm produce and contract farming was perceived as a boon if it really commits as promised.

Key words: Contract farming, Nagpur mandarin, Perception.

INTRODUCTION

Nagpur mandarin (*Citrus reticulata* Blanco) is the main fruit crop of central India. Being a remunerative crop, its area has been increasing every year. Many progressive Nagpur mandarin growers regularly harvest 25-30 tons/ha, but the average productivity hovers between 9-10 tons/ha. The crop productivity is affected by knowledge and input gap, whereas profitability is affected due to marketing constraints. More than 70 per cent growers' sale their produce to pre-harvest contractors, narrowing down the producer's share in consumer's rupee. Most of the growers prefer to sale their produce to pre-harvest contractors approaching them. Thus in spite of spending lot of time, energy and bearing transport as well as other charges, the farmer do not get the anticipated profit margin. It is due to their past experience that was not very encouraging when during direct marketing. The established market lobby also does not want the producers for direct sale of their produce due to vested interests. They make the grower as mere onlooker in the process of bidding as the *Hatta* system still prevails in the market. The producer's share in consumer rupee is 35 per cent as against 53 per cent when sold directly to the consumers. Such glaring difference in terms of profit margin dampens their spirit of producing more but receiving fewer profit margins. This issue could be resolved if there is insulation from market risk that would encourage them to shift from price to productivity concerns. The Nagpur mandarin growers have been expressing their anxiety about remunerative prices since long. Lack of an alternative to the existing marketing system puts into quagmire compelling them to sell it to pre-harvest contractors. Contract farming removes the role of middleman from the markets, wherein companies engaged in processing and or marketing of agricultural/ horticultural produce enters into contract with the farmers. In most schemes, a contracting company provides advice, new technologies, farm inputs, credit in return for farm produce of a certain minimum quality or grade with a rate specified in advance. It enables the farmers to be more skilled and technologically sound. Most of the companies do the job of capacity building and skills transfer besides supplying the latest technology package to the farmers. Hence to ascertain the prospects of contract farming in Nagpur mandarin by knowing the growers operational feasibility perception and find out the issues governing profitability this study was undertaken.

MATERIALS AND METHODS

The sample comprised Nagpur mandarin growers in the four taluqs of Nagpur district in the Vidarbha region of Maharashtra. The respondents having past experience of marketing their produce were selected. For collection of data, a structured interview schedule based on the objectives of the study was administered to the sample farmers. Three villages in each taluka covering large acreage under mandarin were selected and ten respondents selected randomly from each village formed the total sample of 120. The statements to ascertain feasibility of contract farming were measured on four-point continuum namely, feel strongly, feel

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moderately, feel neutral and not feeling with the score 'four',' three', 'two' and 'one' respectively. The eight issues governing profitability were enlisted and against it the responses were elicited on three point grading scale with appropriate coding. The rank based quotient for each aspect was worked out and the rank order was decided.

Taluka	1. Saoner	2. Narkhed	3. Kalmeshwar	4. Katol
	1. Kharduka	1. Aagra	1. Mhasepathar	1. Dhamangaon
Villages	2. Kelwad	2. Belona	2. Pipla(Kinkhede)	2. Masod
	3. Umri	3.Mohagaon (Bhadade)	3. Dhapewada	3.Digras

RESULTS AND DISCUSSION

Perceived acceptability of contract farming: Perception enables an individual to interpret information to form a coherent and unified view of the subject or an issue. The data on perceived acceptability of contract farming in Table 1 showed highly significant relationship between education (t=3.406) and perceived acceptability of contract farming. It is indicative of the fact that, level of education is directly related to change proneness and acceptance for the new idea. The total annual income from citrus (t=2.007) showed significant relationship. They were more receptive to acceptance of new idea than the less educated who were doubtful about the credibility in service delivery by the contract farming companies. The rest of variables did not exhibit any significant relationship as most of them had positive attitude.

Perceived advantages of contract farming: The perceived advantages of contract farming in citrus are presented in Table 2. The guaranteed and fixed pricing structures was perceived as the main advantage which attracted the attention of maximum respondents (RBQ=340). The shield against market fluctuations ranked to be the second (RBQ=328) benefit. It indicates that, marketing of produce and profitability concerns weigh heavily in favor of contract farming. The findings are in conformity with R.S. Tripathi, *et al.* (2005) who reported that the yield and price uncertainty has been found higher for non-contract than contract farms. Nalini Arumugam and Mohd Annas Bin Shamsudin (2013) also reported that the three most important reasons for participation in contract farming are - firstly market for their produce was guaranteed by the buyers or contractors; secondly, improved farming practices; and thirdly, price security of produce by the contractor. Reduced transit cost (RBQ=307) ranked third indicating the underlying concern for the various taxes and commissions doled out by the growers during marketing. It is followed by provision of production management services (RBQ=305) highlights their concern for availability of farm inputs in time. Better quality produce (RBQ=295), skill transfer (RBQ=285), reduction in pre and post harvest losses due to advisory services of the contract farming company (RBQ=276) and insurance based contract (RBQ=275) were rated to be the fifth, sixth, seventh and eighth in order of preference. It implies that their concern

Table 1: Regression analysis between selected independent variables and perceived acceptability of contract farming (N=120)

Variables	Mean	Std. Deviation	't' value
Education	4.20	0.975	3.406**
Social participation	1.408	0.974	1.223
Total land holding	16.53	11.36	0.230
Land under Nagpur Mandarin	8.71	4.97	0.182
Land under irrigation	15.97	10.93	0.052
Total income from citrus	609940.64	851505.76	2.007*
Productivity	1.67	0.92	1.851

** significant at 1% level * significant at 5 % level
Education: Primary=1,middle school=2,High school=3,College=4, Graduate=5,Post graduate=6
Social Participation: President/vice president=4,Secretary=3,Member=2,Non-member=1
Average productivity(per ha): 0-5 tns=1, 5-10 tns=2, 10-15 tns=3, 15-20 tns=4,20-25 tns=5

Table 2: Perceived advantages of contract farming (N=120)

Items of the perceived advantages	Rank Order	Main	Secondary	Tertiary	RBQ
Provision of production management services	IV	77	31	12	305
Access to credit/credit linked input supply	X	45	40	35	250
Access to improved/appropriate technology	IX	48	42	30	258
Skill transfer	VI	65	35	20	285
Guaranteed and fixed pricing structures	I	102	16	2	340
Reduction in pre and post harvest losses due to monitoring & advice of the contract farming company.	VII	59	38	23	276
Reduced transaction cost	III	82	23	15	307
Better quality produce	V	68	39	13	295
Insurance based contract	VIII	57	41	22	275
Shield against market fluctuations	II	98	12	10	328

limits to production and profit. Access to improved/ appropriate technology (RBQ=258) and access to credit/ credit linked input supply (RBQ=250) were relegated to ninth and tenth position. The findings are in conformity with Agila, R. *et al* (2008) who reported that minimum risk in farming, assured price for the harvested produce, reduction in price risk, introduction of new crop varieties, elimination of middlemen, assured income, good coordination between farmers and purchaser, good coordination among farmers, assured market, technical guidance received from the company, availability of adequate financial support, timely availability of quality inputs, and awareness about appropriate technology were the major effective factors for better performance of the coleus contract farming system.

Perception on issues governing profitability: Although the overall profit margin is governed by the prevailing market rate at the time of sale, there are various interlinked issues playing its part in profitability. Table 3 delineates all such issues perceived to be of greater significance by the growers. Unfair price has been ranked as the number one followed by sale to pre-harvest contractors due to immediate need of money and the lack of government support in marketing. The findings are in conformity with Pokharkar *et al.* (2014) who reported that, in contract farming the producer's share in consumer rupee was 95.0 per cent, because only one middleman was involved in the chain. In non-contract farming, producer's share in consumer rupee was 45.6 per cent in Pune and 44.0 per cent Mumbai markets. Similar findings were reported by Gahukar, (2007) who reported that considering the present socio-economic status of Indian farmers, contract farming seems to be an ideal option because this system would have certain advantages over the present crop production and marketing system. The middlemen deciding price of the produce as fourth in order of importance. It means there is a close connection among these four factors that govern profit ability.

Opinion on what should constitute the agreement: Table 4 enlists the priorities that should be taken cognizance while signing the agreement between growers and the contract farming company. The pricing arrangement and payment procedures received maximum preference followed by crop delivery arrangements and contract duration. The advances and their recoveries as fourth and quality standards as fifth issue should find place in the agreements. It points out towards the fact that profitability and timely payment matter them the most.

CONCLUSION

On the basis of the above mentioned results and the discussion, it can be clearly concluded that there was almost unanimity on welcoming the contract farming initiative if it offered the pre-decided assured price. Most of them candidly opined that, they cannot be good marketers. Hence, if the marketing part is taken care by the contract farming company that would address their major concern. Based on their responses access to credit linked input supply would further help reinforce the bond between the company and the growers. However, presently the issue of

Table 3: Perception on issues governing profitability (N = 120)*

Nagpur								
Issues governing profitability	**Main**		**Secondary**		**Tertiary**		**RBQ**	**Rank**
	f	**%**	**f**	**%**	**f**	**%**		
Selling the produce without proper grading and packing.	56	46.67	50	41.67	14	11.67	282	V
Lack of government support / assistance in marketing the produce.	84	70.00	33	27.50	3	2.50	321	III
Middlemen, deciding the price of the produce.	72	60.00	48	40.00	0	0.00	312	IV
Lack of growers co-operative organizations to support group marketing.	34	28.33	80	66.67	6	5.00	268	VIII
Lack of or inadequate cold storage facilities in the market premises.	55	45.83	45	37.50	20	16.67	275	VII
Distress sale to pre-harvest contractors (due to immediate need of money and tradition).	107	89.17	11	9.17	2	1.67	345	II
Over production and less market price	66	55.00	27	22.50	27	22.50	279	VI
Unfair price	111	92.50	7	5.83	2	1.67	349	I

Table 4: Opinion on what should constitute the agreement? (N = 120)

Components in agreement doc.	**Feel strongly**		**Feel moderately**		**Feel neutral**		**Not feeling**		**RBQ**	**Rank Order**
	f	**%**	**f**	**%**	**f**	**%**	**f**	**%**		
Contract duration.	104	86.67	14	11.67	0	0.00	2	1.67	460	III
Quality Standards.	76	63.33	31	25.83	13	10.83	0	0.00	423	V
Cultivation practices required by the sponsor.	24	20.00	43	35.83	31	25.83	22	18.33	309	VII
Advances and their recoveries	89	74.17	27	22.50	3	2.50	1	0.83	444	IV
Crop delivery arrangements.	108	90.00	9	7.50	3	2.50	0	0.00	465	II
Pricing arrangement and payment procedures	120	100.00	0	0.00	0	0.00	0	0.00	480	I
Insurance agreement and cost involved	72	60.00	37	30.83	9	7.50	2	1.67	419	VI

government's intervention in the contract farming agreement is not clear. As the education is highly significant with acceptability of contract farming, farmers may be educated about contract. Pricing arrangement and payment procedures should be simple and favorable towards farmers. The government of Maharashtra also comes forward to be a part of tripartite agreement, it will remove the apprehensions if any nurtured by them.

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