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Profile analysis of mango growers of Karnataka

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Abstract

The study was conducted on profile analysis of mango growers in Kolar and Ramanagar district of Karnataka state during the year 2014-2015. The socio-economic profile of mango growers revealed that majority of the respondents (60.00%) belonged to middle age group. 25.00 percent and 22.50 percent were educated up to high school and middle school, majority (61.66%) of the respondents had agriculture as main occupation, nearly one third (32.50%) of the respondents belonged to small farmers category and 36.67 percent of the respondents had medium experience in mango cultivation (13 to 18 years). Whereas, majority (57.50%) of the respondents belonged to medium extension contact (46.67%), medium innovativeness (53.33%), medium economic motivation (42.50%), medium risk orientation (63.33%) and medium management orientation (50.00%).

Keywords: Mango growers, *Mangifera indica* Linn

Introduction

Mango (*Mangifera indica* Linn) is one of the most ancient fruits of India and deserves to be the national fruit. It is the favorite fruit of almost every Indian and has been repeatedly acclaimed as the "King of Fruits". It occupies the same position in India as is occupied by apple in temperate and grapes in sub tropical areas. Its common name Aam means common. Mango is grown in about 87 countries but it is greatly valued in India. In India, about 1500 varieties of mangos are grown, including 1000 commercial varieties. Among these, Dashehari, Langra and Chausa are the popular varieties of the northern regions of the country, while Alphanso and Pairi are popular in Deccan Plateau and Western regions. Totapuri, Neelam and Benishan are the important varieties of South India (Ravikumar *et al.* 2013) [7]. India produces 2516 thousand MT of mango from an area of 18431.30 thousand hectare has the share of 34.09 percent area and 20.07 percent production of major fruits. Among the top ten mango producing countries, India ranks first with the highest share of 44.01 percent of world mango production. The leading mango producing states of India are Uttar Pradesh (4,30,0980 MT), Andhra Pradesh (27,37,010 MT), Karnataka (17,55,560 MT) followed by Telangana (17,17,000 MT) (Anon., 2015a) [1].

In Karnataka the crop is grown in an area 1,80,530 hectares with the production of 17,55,560 MT (Anon., 2015a) [1]. Among the various districts of Karnataka, Kolar and Ramanagar are the largest mango growing districts with an area of 46722 and 19853 hectares, produces 3,74,140 and 2,23,570 tonnes respectively (Anon., 2015b) [2]. The success of mango industry in different mango growing regions of Karnataka is attributed to the geographical situation with amazing diversity in micro as well as macro climate.

Methodology

The study was conducted in Kolar and Ramanagar districts of Karnataka state during the year 2014-15. These two districts were selected purposively as these districts stood first and second in area and production of mango. Further, two tehsils i.e. Srinivaspura and Mulabaglu from Kolar district and two tehsils i.e. Ramanagar and Magadi from Ramanagar districts were selected in proportion to the highest area under mango cultivation. Thereafter, three villages having the highest area under mango cultivation were selected from each tehsil. 10 respondents were selected randomly from each village. 120 respondents were selected from the selected 12 villages by adopting simple random sampling. Ex-post facto design was employed for conducting the study. Data was collected by using a detailed interview schedule employing personal interview method. Statistical tools like percentage, mean and standard deviation were used to analyse the data.

Results and discussion

Table 1: Personal and socio-economic characteristics of the mango growers (n=120)

Variables	Category	No.	%	Mean	SD
Age	Young (Up to 35 years)	26	21.66	40.87	-----
	Middle (36 to 45 years)	73	60.83		
	Old (Above 45 years)	21	17.50		
Education	Illiterate	25	20.83	-----	-----
	Primary Education	14	11.66		
	Middle School	27	22.50		
	High School	30	25.00		
	PUC	15	12.50		
	Graduate and above	09	07.50		
Occupation	Agriculture (Main)	74	61.66	----	----
	Agriculture + Subsidiary	32	26.66		
	Agriculture +Subsidiary + Other	14	11.66		
Land holding	Marginal Farmers(Up to 2.50)	11	09.16	9.46	----
	Small Farmers (2.51 to 5.00)	42	35.00		
	Semi Medium Farmers (5-10.00)	30	25.00		
	Medium Farmers (10-25.00)	26	21.66		
	Big Farmers(Above 25.00)	11	09.16		
Family annual income	Low (1 -1.37 lakh)	41	34.17	244000	213552
	Medium (1.37 – 3.50 lakh)	60	50.00		
	High (>3.50 lakh)	19	15.83		
Farming Experience	Low(<22.13)	35	29.17	25.35	06.44
	Medium(22.13 – 28.57)	49	40.83		
	High(>28.57)	36	30.00		
Experience in mango cultivation	Low (<13.22)	36	30.00	15.29	04.14
	Medium (13.22 – 17.36)	44	36.67		
	High (>17.36)	40	33.33		
Extension contact	Low (<5.71)	40	33.33	5.75	2.76
	Medium (5.71 – 8.09)	56	46.67		
	High (>8.09)	24	20.00		

It is apparent from the Table 1 that majority (68.83%) of the respondents were under middle age category. Whereas, 21.66 percent were belonged to young age group and 17.50 percent of them belonged to old age category. The probable reason for majority of respondents were in middle age category might be that, these middle age farmers were had more working efficiency, actively involved in the farm activities and these experiences comparatively have proper management in financial affairs and they can take up an independent decision which leads to take new farm based activities and entrepreneurial activities. The results are in line with the research findings reported by Ravikumar *et al.* (2013)^[7].

It is clear from the Table 1 that, 25.00 percent of the respondents had high school education, 22.50 percent of the respondents had middle school. Whereas, 20.83 percent of them were illiterate, followed by up to primary school (11.66%), Pre University (12.50%) and graduation and above had attained by 7.50 percent respectively. The probable reason for the majority of respondents were educated up to high school and middle school level might be the reason that improper facilities of schooling available in vicinity of villages. Whereas, 20.83 percent of the respondents were illiterates. It may be due to illiteracy of their parents, poor exposure on importance of formal education and low socio economic status. The results are in conformity with the findings reported by Rajashekhar (2009)^[6].

With respect to occupation of the respondents, it is clear from the Table 1 that majority (61.66%) of the respondents had agriculture as main occupation and 26.66 percent of them engaged in agriculture with subsidiary enterprises. Majority of the respondents were practicing agriculture alone. This may be due to the continuation of their ancestral traditional occupation of agriculture, their elementary level education will not fetch any occupations in other sector. Thus, majority had opted farming as their only occupation. The findings are in line with the studies of Henge *et al.* (2007)^[3] and Naveen Kumar (2012)^[5].

The findings of the Table 1 showed that nearly one third (35.50%) of the respondents belonged to small farmers category. Whereas, 25.00 percent and 21.66 percent of the respondents fell under semi medium and medium farmers category. The probable reason might be that continuous fragmentation of lands in the family. The similar situation was also noticed in the findings of Ravikumar *et al.* (2013)^[7].

The results of the Table 1 showed that half (50.00%) of the respondents were in medium income group (1.37–3.50 lakh), followed by 34.17 percent were in low income group (less than 1.37 lakh) and 15.83 percent were in high income group (more than 3.50 lakh). This might be due to the majority of the respondents had medium size of land holding, few farmers were practiced subsidiary occupations including other crops/enterprises led medium income. The results get support from the findings of Ravikumar *et al.* (2013)^[7].

Regarding overall farming experience of mango growers, 40.83 percent of the respondents had medium farming experience (22 to 28 years). Whereas, 30.00 percent of respondents had high farming experience (above 28 years) and 29.17 percent of the them had low farming experience (less than 22 years) (Table 3). The reason for medium farming experience due to the majority of the respondents were in middle and old age group, they might have started farming in their early age. The results get support from the findings of Ravikumar *et al.* (2013)^[7].

With respect to farming experience, 36.67 percent of the respondents had medium farming experience (13 to 18 years). While, 33.33 percent of the respondents had high (above 18 years) and 30.00 percent had low (less than 13 years) farming experience in mango cultivation. The reason might be that in recent years, mango crop provide higher income to the farmers as it is cash crop, the mango is dry land crop where other crops may not be more remunerative. Hence, most of the respondents were cultivated mango as one of the main crop over the years. Thus majority of respondents were in medium and high mango cultivation experience. The results get support from the findings of Ravikumar *et al.* (2013)^[7].

With respect to extension contact (Table 1), nearly half (46.67%) of the respondents belonged to medium extension contact. Whereas, 33.33 percent of respondents belonged to low extension contact. The probable reason for belonged to medium extension contact because of to solve their mango cultivation problems they had contacted officials of different departments like agriculture and horticulture, they may had better contact with various private advisory services and extension workers that might be the reason they had medium extension contact. The findings are in line with the studies of Nagesh (2006)^[4].

Frequency of Extension Contact of Mango Growers

The data presented in Table 2 pertaining to frequency of extension contact of mango growers indicates that, 92.50 percent percent of the respondents contacted Assistant Horticulture Officer (AHO), 65.83 percent contacted Assistant Agriculture Officer (AAO). Whereas, 65.83 percent of the respondents contacted Horticulture Assistant. It might be due to these extension functionaries were grass root level workers, access easily at village level hence farmers contact with these officials is quite frequent.

Table 2: Frequency of Extension Contact of Mango Growers

S. No.	Extension	Contact		Frequency of Contact							
		No	%	Once in week		Once in 15 days		Whenever problem arises		Never	
				No	%	No	%	No	%	No	%
1.	HA	79	65.83	00	00.00	29	24.16	50	41.66	41	34.16
2.	AHO	111	92.50	05	04.16	51	42.50	55	40.83	09	07.50
3.	ADH	84	70.00	00	00.00	31	25.83	54	45.00	36	30.00
4.	Agriculture assistant	41	34.16	00	00.00	12	10.00	29	24.16	79	65.83
5.	AO	58	48.33	00	00.00	15	12.50	43	35.83	62	51.66
6.	ADA	35	29.16	00	00.00	05	04.16	25	20.83	85	70.83
7.	Private consultant	10	8.33	00	00.00	02	01.16	8	6.66	110	91.66
8.	University Staff	61	50.83	00	00.00	12	10.00	50	41.66	61	51.83
9.	Inputs agency	85	70.83	00	00.00	13	10.83	72	60.00	35	29.16

Innovativeness of Mango Growers

With respect innovativeness, about half (53.33%) of the respondents had medium levels of innovativeness. Whereas, 26.67 percent of the respondents had high innovativeness and 20.00 percent of them had low levels of innovativeness respectively (Table 3) The medium innovativeness of farmers

might be due to fact that majority of the respondents were middle aged, the middle aged farmers usually verge of accept/adopt new things in their day to day farming activities. This may be the probable reason for medium level of innovativeness. The findings are in line with the studies of Hendge *et al.* (2007)^[3].

Table 3: Distribution of Mango Growers according to their Innovativeness

S. No.	Category	Frequency	Percentage
1.	Low(<7.57)	32	26.67
2.	Medium(7.57 – 10.17)	64	53.33
3.	High(>10.17)	24	20.00
		Mean = 8.875	SD = 2.59

Statements Contributing for Innovativeness among Mango Growers

The results presented in Table 4 pertaining to statements contributed for innovativeness among mango growers indicates that equal (62.50%) percent of respondents agree to the statement “Learning mango processing aspects are good to the farmers”, followed by 61.66 percent agree to a statement “Usually I wait to see that what results my neighbours obtain before I try out the new things in mango processing”. The

possible reason may be that the mango growers are directly sell their produce immediately after harvest. It may not give expected returns and profit. Due to less profit in selling fruits directly to the market, they curious of knowing mango processing so as mango processing products get good demand and high price in the market, that may be reason majority of the respondents agree for the statement learning mango processing are good to the farmers.

Table 4: Statements Contributing for Innovativeness among Mango Growers

S. No.	Statements	Agree		Undecided		Disagree	
		No	%	No	%	No	%
1.	Learning mango processing aspects are good to the farmers	75	62.50	05	04.16	40	33.33
2.	If an entrepreneur gives a talk, it is worth to learn	75	62.50	09	07.50	36	30.00
3.	Somehow I believe that the simply selling of mango at market are the best instead of processing	60	50.00	20	16.66	40	33.33
4.	Usually I wait to see that what results my neighbours obtain before I try out the new things in mango processing	74	61.66	13	10.83	33	27.50
5.	I am cautious about trying a new practices in mango production	72	60.00	16	13.33	40	33.33
6.	I try to keep myself up to date with information on new farm practices in mango production but that does not mean that I try out all new methods on processing	61	50.83	20	16.66	39	32.50
7.	Often enterprising in mango are not successful, however, if authorities are promising good result I would surely like to take up them.	62	51.66	24	20.00	35	29.16

Economic Motivation of Mango Growers

The data from Table 5 show that, less than half (42.50%) of the respondents had medium economic motivation category. Whereas, 36.67 percent of the respondents had high economic motivation. The possible reason for medium and higher

economic motivation could be due to their economic position, medium land holding, medium standard of living were the important factors for medium to high economic motivation. The findings are in agreement with the studies conducted by Rajashekhar (2009) [6].

Table 5: Distribution of Mango Growers according to their Economic Motivation

S. No	Category	Frequency	Percent
1.	Low (<5.79)	25	20.83
2.	Medium (5.79 – 7.81)	51	42.50
3.	High(>7.81)	44	36.67
		Mean = 6.8	SD = 2.02

Statements Contributing for Economic Motivation among Mango Growers

The results presented in Table 6 pertaining to statements contributed for economic motivation among mango growers indicates that, 66.66 percent of the respondents agree with the statement “A farmer should try any new marketing idea which may earn him more money” followed by 65.83 percent agree with the statement “A farmer should think towards larger

yields and economic profits”. The change is universal phenomenon. This statement is obviously true to the entrepreneurial activities. Even it is essential to the farming situations particularly for marketing aspects. Any new ideas will bring changes their living standards. The similar attitude found by the respondents that the new ideas in mango marketing that bring changes in the mango growers with respect to economic and social aspects.

Table 6: Statements Contributing for Economic Motivation among Mango Growers

S. No.	Statements	Agree		Undecided		Disagree	
		No	%	No	%	No	%
1.	A farmer should think towards larger yields and economic profits	79	65.83	22	18.33	09	07.50
2.	The most successful farmers is one who makes the most profit	74	61.66	26	21.66	20	16.66
3.	A farmer should try any new marketing idea which may earn him more money	80	66.66	28	23.33	12	10.00
4.	A farmer should grow demand based varieties which are more suitable for processing in tern it gives more profit to the farmer	72	60.00	28	23.33	20	16.66
5.	It is difficult for the farmer’s children to start mango entrepreneurship activities unless they have been provided with economic assistance	40	33.33	21	17.50	59	49.16

Risk Orientation of Mango Growers

The findings from the Table 7 reveals that, majority (63.33%) of the respondents had medium risk orientation, followed by 20.83 percent and 15.83 percent of the respondents had low and high risk orientation. The risk bearing capacity of individuals depend upon the personal, psychological and socio-economic characteristics of the individuals. The

respondents with more farming experience, better income and contact with extension personnel have increased the perception and confidence to adopt new technologies, all these factors might have resulted to medium risk orientation by the respondents. The results are in accordance with the findings of Ravikumar *et al.* (2013) [7].

Table 7: Distribution of Mango Growers according to their Risk Orientation

S. No.	Category	Frequency	Percent
1.	Low(<11.51)	25	20.83
2.	Medium(11.51 – 14.09)	76	63.33
3.	High(>14.09)	19	15.83
		Mean = 12.80	SD = 2.58

Statements Contributing for Risk Orientation among Mango Growers

The results presented in Table 8 pertaining to statements contributed for risk orientation among mango growers indicates that, 62.50 percent respondents agree to a statement, "A farmer who is willing to take greater risks than the average farmer usually have better financial condition". Whereas,

55.00 percent of the respondents were agree to a statement "Trying an entirely new method in entrepreneur activity by a farmer involves risk, but it is worth". The secrecy of entrepreneur is a greater risk involvement which leads greater success. It is applicable to the mango entrepreneurs. The same thought might have been perceived by the mango growers.

Table 8: Statements Contributing for Risk Orientation among Mango Growers

S. No.	Statement	Agree		Undecided		Disagree	
		No	%	No	%	No	%
1.	A farmer should initiate small scale enterprise to avoid greater risks involved in marketing of his produce	68	56.66	15	12.50	37	30.83
2.	A farmer should rather take more of a change in making a big profit through value addition	66	55.00	33	27.50	21	17.50
3.	A farmer who is willing to take greater risks than the average farmer usually have better financial condition	75	62.50	26	21.66	19	15.83
4.	It is good for a farmer to take risks when he knows his chance of success is high	62	51.66	28	28.33	30	25.00
5.	It is better for a farmer not to try new ventures of mango processing unless other farmers have used them with success	77	64.16	10	8.33	33	27.50
6.	Trying an entirely new method in entrepreneur activity by a farmer involves risk, but it is worth	66	55.00	24	20.00	30	25.00

Management Orientation of Mango Growers

The data presented in Table 9 shows that half (50.00%) of the respondents belonged to medium management orientation, followed by 27.50 percent of the respondents had low level of management orientation and 22.50 percent of them had high level of management orientation. The probable reason for medium level of management orientation might be their interactions/contacts with the extension personnel have helped farmers to reorient their crop management practices. Knowledge obtained from training programmes, demonstrations, exhibitions, krishimela and field days etc., contributed to develop their medium level of management orientation. The findings are in line with the studies of Nagesh (2006)^[4] and Naveen Kumar (2012)^[5].

Table 9: Distribution of Mango Growers according to their Management Orientation

S. No.	Category	Frequency	Percent
1.	Low (<35.81)	33	27.50
2.	Medium (35.81– 42.03)	60	50.00
3.	High (>42.03)	27	22.50
		Mean = 38.92	SD = 6.22

Conclusion

The study showed that mango growers were middle aged, this group should oriented about managerial and entrepreneurial skills so that they can act as catalysts in motivating other farmers to take up mango entrepreneurial activities through proper networks. Mango growers had medium innovativeness, these farmers are more potential in learning and adopting of new technologies both in backward and forward linkages of mango production. Hence, appropriate measures have to take into account to improve entrepreneurial activities among mango growers.

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