



**ORIGINAL RESEARCH PAPER**

**Management**

**VALUE CHAIN ANALYSIS OF MANGO IN KOLAR AND RAMNAGAR DISTRICT**

**KEY WORDS:** Globalisation, Organisations, work life balance, priorities

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**ABSTRACT**

Our study Value chain analysis of mango in kolar and Ramnagar District, tries to analyse the various players involved in the value chain. According to this we will try to analyse how the input supplying companies providing the inputs to the farmers, how the farmers are utilizing the inputs and producing the Mango and after this how the harvesting takes place and which link the mango gets channelized into the market, from there many links like traders and commission agent comes into light and there by the processor and then by there a marketing agency comes into face and then the organized retailer/ unorganized retailers will comes and then the finally the intended point to the final consumer will come where they are the end users who replies back with the chain that whether the product received by them is good or not, so this reply gives an understanding to the all links to make certain changes intended to suit the needs of final consumers.

**INTRODUCTION**

Value Chain is a connection between various stakeholders in the market for a given product. A business model where a business starts with receiving inputs and it ends with end user or consumer, between this various members act as the links between inputs to the end consumer, like raw materials provider, producer, processing, Traders, Marketing Companies, Further Processing units, organized/Unorganised retailers, final consumers.

**Mango Value Chain**

Value chain analysis of Mango in our study area plays a very pivotal role for value addition that takes place to the Mango in its cycle to the end user or final consumers.

Value chain of Mango will be having various stakeholders from input providers to the end consumers which includes the input products providers to the farmers, farmers utilizing this produces the Mango and maintains the orchards and after this harvesting takes place with help of contract labours and in some cases farmers will be having post-harvest contracts for mango, which helps the farmers to save them from the fluctuating market prices, after this trading takes place in the APMC or Private mango collection center or some organized and processing industries may purchase it or directly sometimes it purchases from the farmers or it will purchase from the APMC or from the Private Mango collection center. Wholesaler purchase from traders and then they will sell it to the small retailers and then the retailers finally sell it to the final consumers. From the processor end it goes to other links like marketing companies and then to the organized retailers and unorganized retailers, finally this retailers pass on it to the final consumers in the market.

Functionaries of Mango Value Chain in Kolar and Ramanagar District In Mango Value Chain the very first stakeholder is the Input supply companies, this companies supplies the fertilizers and other essential products required for the Mango orchards, Farmers after getting inputs they utilize it and also their equipment's to further move with maintenance of Mango in their farm. When the Mango trees are in flowering time there are many instances of Mango tree flowers used to get harmful fruit disease from fruit flies and other related diseases, after solving this problems using available inputs, Mango farmers comes to the harvesting stage where some farmers may go to the post-harvest contracts with to harvest mangoes, or the farmers may go to bring in contract labours to harvest the Mango, this depends on how the farmers feel it is convenient to them depending upon the external factors and the market rate fluctuations.

**Value Chain Analysis**

Inputs- Input Supply Companies.

Production- Mango Farmers

Trade- Trader or Contractor or Middleman, Wholesalers in Mandis, Exporters, Large Exporters

Marketing or Processing- Retailers, Supermarkets and Processors

Consumption- Private Consumers and Large Consumers.

Source: PwC Analysis

**RESULTS AND DISCUSSION**

Particulars	Ramanagara %	Kolar %
<b>Gender</b>		
Male	95.3%	96.0%
Female	4.7%	4.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Occupation</b>		
Agriculture	88.0%	90.7%
Business	11.3%	8.7%
Employed	0.0%	.7%
Others	.7%	0.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Monthly Income</b>		
Rs. 5000 to Rs. 10000	2.0%	0.0%
Rs. 10000 to Rs. 15000	33.3%	11.3%
Rs. 15000 to Rs. 20000	59.3%	54.7%
Above Rs. 20000	5.3%	34.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Education Status</b>		
Illiterate	0.70%	3.30%
Primary	8.0%	5.30%
Secondary	27.30	19.30%
PUC	28.0%	18.00%
Degree	29.30%	48.0%
Post-graduate	6.70%	6.00%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Mango Varieties Grown</b>		
Totapuri	20.0%	72.0%
Totapuri, Raspuri	8.0%	0.0%
Totapuri, Malgoa	.7%	0.0%
Totapuri, Badami	24.0%	0.0%

Raspuri	10.0%	4.0%
Raspuri, Badami	4.7%	0.0%
Malgoa	0.0%	.7%
Badami	32.0%	22.0%
Banganapalli	.7%	1.3%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Sale of Mango by Farmer</b>		
APMC	62.7%	36.0%
Commission Agent	2.7%	0.0%
Directly to Processing Firm	3.3%	0.0%
Directly to Consumers	31.3%	14.7%
Private Market Yard	0.0%	49.3%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Other Farming Practices</b>		
Food Crops	0.0%	10.7%
Dairy Farming	2.7%	5.3%
Livestock	27.3%	8.7%
Vegetable Farming	70.0%	75.3%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Required Inputs available Sufficiently</b>		
Yes	80.0%	75.3%
No	20.0%	24.7%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Mode of Transport</b>		
Tractors	23.3%	57.3%
Truck	38.7%	40.0%
Tempo	37.3%	2.7%
Others	.7%	0.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Fair Price for the Mango in the market</b>		
Yes	93.3%	81.3%
No	6.7%	18.7%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Source of information for Mango Price in the study area</b>		
Personal Visit	48.0%	68.7%
Newspaper	0.0%	2.0%
Website	52.0%	29.3%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Vehicles Owned by the Farmers</b>		
Bicycle	0.0%	.7%
Cart	2.0%	0.0%
Two Wheeler	89.3%	82.7%
Four Wheeler	8.7%	15.3%
Truck	0.0%	1.3%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Satisfied with the current Marketing System for Mango</b>		
Yes	90.0%	63.3%
No	10.0%	36.7%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Type of Packing of Mango for Transporting to Market</b>		
Plastic Crates	60.7%	14.0%
No	39.3%	86.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Primary Survey 2016-17, Ramanagaram District and Kolar District

No. of Respondents-  
Ramanagaram District-150  
Kolar District- 150

Table explains Gender ratio of the respondents in the study area.

The study area comprises of Two Districts that is Kolar and Ramanagaram District. The respondents in this study is 300 respondents the two districts. In Ramanagaram District among 150 respondents majority of the 95.3% respondents were of Male and the 7 respondents that is 4.7% were of Female respondents. While in the Kolar District among 150 Respondents 96.0% of the respondents are of Male respondents, and 4.0% were of Female respondents.

Table explains the Occupation of the respondents in the study area. In Ramanagaram District among 150 respondents majority 88.0% respondents were of practicing Agriculture as their main occupation, while that of 11.3% respondents were of doing business, and the rest 0.7% that is 1 respondent is doing some miscellaneous work. In Kolar district among 150 respondents 90.7% were of practicing Agriculture as their main occupation, while 8.7% were of having business, and the rest one respondents is of been employed in some organization.

Table explains the monthly income of the respondents in the study area. Accordingly among 300 respondents in Ramanagaram District among 150 respondents majority of the 59.3% of the respondents were of having Rs. 15000 to Rs. 20000 monthly income, while 33.3% were of having Rs. 10000 to Rs. 15000 of monthly income, and 5.3% of the respondents were of having above Rs. 20000 of monthly income, and only 2% of the respondents were of having Rs. 5000 to Rs. 10000. In Kolar District among 150 respondents 54.7% were of having Rs. 15000 to Rs. 20000 as monthly income, while 11.3% were of having Rs.10000 to Rs. 15000 of monthly income, while the 34.0% were of having above Rs. 20000 of monthly income.

Table explains the status of the producer in the study area, accordingly among 300 respondents in Ramanagaram District among 150 respondents 28.00% respondents were of PUC education, while 27.30% were of secondary education, majority of the 29.30% were of had Degree qualification, while 8.0% were of primary educated, while 6.70% were of Post-graduated. In Kolar District among 150 respondents 48.0% of the respondents were of graduates, while 19.30% were of secondary educated, while 18.00% were of PUC educated, 6% were of post-graduated, and 3.30% were of illiterate.

Table explains the varieties of the mango grown in respondents land. In this particularly the respondents were interviewed about what are the main varieties grown in their mango farm. Accordingly among 300 respondents, in Ramanagaram district among 150 respondents majority of 32.0% were of growing Badami variety of Mango, while 24% were of growing Totapuri and Badami as main variety, while 20.0% of the respondents were of growing the Totapuri as a main mango variety in their farm. While 10.0% were of growing Raspuri variety, and 8.0% were of growing totapuri and Raspuri as the main variety, while 4.7% were of growing Raspuri and Badami Variety. In Kolar District among 150 respondents majority of the 72.0% of the respondents were of growing totapuri as the single main variety due to its good value in the market in National and International, while the 22.0% of the respondents were of growing badami variety as a main variety, while the rest 4.0% were of growing Raspuri as the main variety.

Table describes to whom the respondents is selling their mango produce in the market. Accordingly among 300 respondents in Ramanagaram District among 150 respondents 62.7% of the respondents were of selling their produce in APMC, while the 31.3% of the respondents are of selling their produce directly to the Consumers, while 3.3% of the respondents are of selling their produce directly to the Processing firms, and the rest 2.7% of the respondents were of selling Mango produce to the Commission agent. In Kolar district among 150 respondents 49.3% were of selling to Private Market Yard, 36.0% were of selling the Mango produce in APMC, and the rest 14.7% of the respondents were of selling directly to the consumers.

Table describes the other farming activities apart from the Mango farming in the respondents farm. Accordingly in the study area

among 300 respondents, in Ramanagaram district among 150 respondents 70.0% of the respondents were of practicing the vegetable farming, while 27.3% were of practicing the Livestock rearing their farm, and the rest 2.7% of the respondents were of practicing Dairy farming. In Kolar District, among 150 respondents majority of the 75.3% respondents were of practicing Vegetable farming in their farm, while that of 10.7% of the respondents were of practicing Food Crops, while the other 8.7% of the respondents were having the livestock rearing, while the rest 5.3% were of practicing the Dairy farming. In an overall among 300 respondents majority of the 218 respondents were of practicing vegetable farming apart Mango Farming, while that of 54 respondents were of practicing livestock rearing, and the 16 respondents were of practicing Food Crop growing, while the rest of the 12 respondents were of practicing dairy farming.

Table describes is the required inputs are available sufficiently to the respondents in the study area. Accordingly among 300 respondents in the study area, in Ramanagaram district among 150 respondents majority of the 80.0% of the respondents are of the opinion that yes, the required inputs are available sufficiently for the mango cultivation. In Kolar district among 150 respondents majority of the 75.3% of the respondents are of the opinion that they are getting the required inputs sufficiently, while the rest 24.7% of the respondents are of the opinion that they are not getting inputs sufficiently. The availability of the inputs for the farmers and others it generally depends on the market condition and the time period actually when the farmers goes to purchase the required inputs for the farming activities. There may be chances that sometimes in some places it may become short of supplies to some dealers in unavoidable condition, so it can be expected that the dealers related to this can store the extra required stock in advance when season nears for the demand for the inputs in the market.

Table describes the mode of transport used to transport Mango from production center to nearest market. Accordingly in the study area among 300 respondents in Ramanagaram district among 150 respondents majority of 38.7% of them were using truck, while 37.3% of the respondents were of using Tempo for the movement of Mango and the 23.3% of the respondents were of using tractors. In Kolar District among 150 respondents majority of 57.3% of the respondents were of using tractors, while the 40.0% of the respondents were of using truck for the movement of the mango from their respective farm to the Market.

Table explains whether the respondents are getting the fair price for Mango in the market. Accordingly in the study area among 300 respondents in Ramanagaram district among 150 respondents majority of the 93.3% are of the opinion that they are getting the fair price for the mango in the market, while that of 6.7% were of the opinion that they were not getting the fair price for their produce in the market. In Kolar District among 150 respondents majority of the 81.3% respondents were of the opinion that they are getting the fair price for the Mango in the market, while that of 18.7% respondents were of the opinion that they are not getting the fair price according to their expected price, in their opinion the reason due to the expenses incurred in the inputs for the mango is increasing at a faster pace.

Table describes the source of information for Mango price in the study area getting by the respondents. Accordingly among 300 respondents in Ramanagaram District among 150 respondents majority of the 52.0% are of the opinion that they were getting the information for Mango price from the website related to agmarknet and also other government related website. While the rest 48.0% are of the opinion that they are of getting the information from directly visiting the market. In Kolar district among 150 respondents majority of the 68.7% respondents were of the opinion that they are getting the information on Mango price by directly visiting the Market. While that of 29.3% are of the opinion that they are getting the information on Mango price from the Website related to Agmarknet and other websites, while the rest 2.0% were of getting the mango price information form Newspaper.

Table shows the vehicles owned by the respondents in the study area. Accordingly in the study are among 300 respondents in Ramanagaram District, among 150 respondents majority of the 89.3% were if owning the two wheeler, while the other 8.7% of the respondents were of owning four wheeler (Car), the rest 2.0% of the respondents were of owning the cart. In Kolar District among 150 respondents 82.7% were of owning the two wheeler vehicles, while that of 15.3% of the respondents were of owning the four wheeler, and only 2 respondents was of owning the truck. Table describes the respondents opinion about whether they are satisfied with the current marketing system for Mango in the study area. Accordingly in the study area among 300 respondents, in Ramanagaram District among 150 respondents majority of the 90.0% respondents are of the opinion that they are satisfied with the current Marketing system in the Market in the study area. While the rest 10.0% were of the opinion that they are not satisfied with current marketing system. In Kolar District among 150 respondents majority of the 63.3% were of satisfied with the current marketing system for Mango in the study area, while the other 36.7% were of not satisfied with the marketing system of the Mango.

Table describes the packing used for mango for transporting to Market. Accordingly in the study area among 300 respondents in Ramanagaram district among 150 respondents majority of the 60.7% were of using plastic Crates for packing, so as to move Mango to the Market, while that of 39.3% were of not using any packing material for transporting it to the market. In Kolar District among 150 respondents majority of the 86.0% were of not using any packing materials for transportation of mango to the market, while the rest of the 14.0% of the respondents were of using plastic crates to transport the mango to the market.

#### Findings of the Study

1. Agricultural inputs has a main issues with the farmers in the study area. Because as the cost of inputs are raising very sharply year by year, there is no subsidy for some farmers with related to inputs is causing a problem to the mango farmers in the study area.
2. Many farmers are moderately satisfied with the price what they get in these market, that is the share price in the consumer price, but accordingly farmers share in the price have not increased according to the external prices prevailing in economy and cost of living in the society.
3. There is a major problem that is at the time of flowering the insects and other Mango flies damages the inner core of the mango fruit, which causes to loss the value of the Mango in the Market.
4. Mango farmers in the current market set up are only at price taking point and they are at a accepting point, they are not getting place in price making decision.
5. Many farmers are of the opinion that they are finding more valuable price in Mango Mela which are organized by the Mango development Board.

#### Suggestions and Conclusion

Agricultural inputs costs need to be managed to affordable for the farmers so that it should be encouraging factor to farmers to grow mangoes. According to farmers view the Mango Mela have attracted many farmers in the study area which many farmers are demanding for more mango melas from coming years and also this melas can be arranged in all the districts so as to increase the income of the Mango farmers. Overall in the study we conclude that Mango plays a prominent role in the economy of the Kolar and Ramanagaram District which gives employment opportunities for many in the economy directly and indirectly. Value Chain of Mango in the study area is having strong hold in all the sense but with running in profitable way, but at farmers end they are needed to be allotted a fair price of share in ultimate consumer price.

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