

## Marketing of Turmeric in the Sangli District, Maharashtra, India

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### Abstract

Due to Globalization there is an increasing need for agricultural marketing. The researcher attempts to study the marketing of Turmeric. This study consists of marketing of turmeric in Sangli district. In Sangli procuring and trading facility and online marketing is available. Identifying potential customer and trading facility is a problem. Agricultural marketing systems and products are needed to be restructured and reoriented to meet the needs arising from the globalization process, new initiatives and measures will be required to be identified and attended to by globalization and agricultural marketing.

**Keywords:** Turmeric; Marketing; Customer; Trading; Farmers

### Introduction

The role of market infrastructural facilities in creating competitiveness, market environment can hardly be over emphasized in the light of past performance of various legislation, rules and regulation that the goal of marketing efficiency can be achieved only providing adequate facility to the farmers which is possible through increasing public investments and paying more attention on development and proper management of market infrastructural facilities. In order to weed out of malpractices in Turmeric marketing to private agencies the Government has interfered to regulate the marketing activities.

This study is outcome of primary survey conducted in the Sangli District, which covers Marketing of Turmeric and suggest remedies to Agricultural Produce Market Committee (APMC) and Growers, Traders of Turmeric produce to proper marketing.

### Statement of the problem

After the discussions with various experts and scholars, the researcher found that the proper marketing management is neglected activity and time attraction must be given for effective growth sales.

### Objectives of the Study

The present research work has been undertaken with the prime objective of studying marketing of turmeric produce in Sangli District.

This prime objective is supported by following sub objectives.

1. To study the marketing pattern of Turmeric in Sangli District.
2. To explore the problems of Turmeric grower and trades.
3. To study the distribution channel of turmeric.
4. To suggest suitable remedial measure to overcome the deficiencies in Turmeric marketing.

### Methodology Adopted

#### Sources of data collection

In order to collect the required information the researcher has used the survey method which is carried out by personally visiting the selected growers and traders to different sources and considered in this research for the collection of required data.

1. Primary sources.
2. Secondary sources.

### Sampling design

The researcher has selected overall 10% Growers that is 100, and 10% of Traders i.e. 40. Turmeric producer and seller as a sample size of its study. In order to solicit the proper responses the researcher has focused on those respondents willing to participate and cooperate in the present study [1].

### Scope and limitations of the study

The study of the study is limited in respect of topical coverage, geographical coverage and analytical coverage. There is also geographical or regional limitation of study that the research is concentrated on the Sangli district regions. Hence geographical scope is limited. There is also analytical limitation of the study that by focusing only on the predetermined objectives. The researcher does not claim this study to the perfect or even complete in itself because the marketing covers diverse aspects. The subject is too vast to give justice in specified time period. The researcher is also aware that there are some functional limitation of study as it was unfamiliar area and the study of marketing of Turmeric. In spite of the above limitations, the study throws light on various marketing strategies to improve marketing of turmeric produce.

### Validity of the study

Agriculture occupies an important position in our economy despite industrialization. It provides employment to 65% of workforce of the country.

Agriculture forms the backbone of the Indian Economy and despite concerted industrialization in the last five decades. Agriculture occupies a place of pride being the largest industry in the country.

Storage and planning for efficient distribution of Agricultural commodities for promotion of economic progress. However, present

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time in our country a time lay between Agricultural production and Agricultural marketing has to be maintained due to various factors – historical, administrative, economic and technical. Therefore the government is all the time engaged primarily in the bridging the gap between demand and supply. “In Agricultural market, we are concerned with demand and supply conditions, marketing operations including marketing functions, functionaries and costs, price fixation, market structure conduct and performance and marketing efficiency”. If the cultivators are derived full benefits of enhancing the agricultural production, there effort will have to be preceded by suitable charges in the field of marketing the agricultural products [2].

In a developing economy like India, marketing should be viewed not only as a series of specialized activities related to production, pricing, and selling of products but a continuing thought process a process which seeks to build the present situation in the desired form of future.

Agricultural sector needs well-functioning marketing to drive growth, employment and economic prosperity in rural areas of the country. In order to provide dynamism and efficiency into the marketing system large investment is required for the development of post-harvest and cold chain infrastructure nearer to farmer’s field.

Turmeric is used in many products. It is also used in making various spices. India is known for spices manufactured throughout world. It is cultivated in states like Maharashtra, Andhra Pradesh, Kerala, and Karnataka. Sangli district in Maharashtra State is well known for Turmeric (Rajapuri type) Production. It has also emerged as a wholesale market in turmeric though; the turmeric production is less than 10% of the total production of turmeric in the country. Turmeric is a production of turmeric in the country. Turmeric is a commodity has commercial, economic, religious, cultural, and medicinal importance.

In view of the above discussion and taking in to account of the various aspects directly affecting the Turmeric marketing in Sangli, all the pertinent problems and having followed all the steps in marketing strategies the researcher has recommended the valuable suggestion which would be more useful to traders and growers of the turmeric produce [3].

## The Turmeric Produce

The name Turmeric is derived from the word “curcuma”. India, the home of spices, enjoys the reputation of growing finest quality turmeric in the world. India exports 20 items of spices and turmeric is one of them. India ranks first in the world in production and export of this commodity. The world over, turmeric is used in food, in dye, in medicinal and so on. Turmeric is the significant agricultural commodity and needs strategic marketing.

The beautiful yellow color of turmeric is due to its curcumin content and flavor due the presence of an essential oil. Turmeric is believed to be native of tropics and is considered to be of South East Asian origin. The name Turmeric is derived from the French ‘Curcuma’. Turmeric (*curcuma longa*) is the most important of the spice crops grown in India it is spice of obtained from the underground rhizomes of the plant. Cured or proceed turmeric is graded and sorted into fingers and splits, the best quality being fingers [4]. The spice is obtained by grading these orange-yellow waxy rhizomes into a fine aromatic yellowish powder which is used as a condiment and as an essential ingredient of curry powder as it contains 24% of turmeric powder. The beautiful yellow color of turmeric is due to the presence of a crystalline matter called

curcumin. India, the home of spices, enjoys the reputation of growing finest quality of turmeric in the world. India exports twenty items of spices and turmeric is one of them. India ranks first in the world in production and export of commodity. The world over, turmeric is being used in food, confectionery and medicines.

Turmeric is an important industry like other industries it also requires capital, labor, land and so on. Due to the peculiarities of agriculture especially its uncertainty and low returns, high rate of rent and limited scope for employment, cultivators cannot manage needed finance without resource to borrowing. One of the most important lessons of universal agrarian history is that the agriculturist must borrow, due to the fact that his capital is locked up land and stock. Unfortunately, the agriculturists candle burns from both side ends having put in so much efforts and toil, it is still not mandatory for him to get back his due share. The intermediaries plays an important role in this they eat lion share of the profit [5]. The wild fluctuation in prices, low returns, high cost of production, and marketing. Turmeric is a commodity having commercial economical, religious, cultural and medicinal importance while the conventional importance is dictated by social sanctification, the commercial importance is derived the fact that it contributes substantially to GNP. This study is an outcome of primary survey conducted in the Sangli district, which covers marketing of turmeric.

## Turmeric produce: preparation for the market

**Harvesting:** After planting, the Turmeric crop gets ready for harvesting in about 8 to 9 months. The main harvesting season starts from February and continues till April. In Maharashtra (Sangli), harvesting starts from February and continues till April, and the main marketing season is March- June. In harvesting the Turmeric crop, care should be taken that the rhizomes are not cut or bruised and that the whole is lifted out with the dry plant, including the base of the stems by digging out rhizomes using pick axe or crow-bar [6]. The leafy tope are then cut off, the roots removed, all the adhering earth is shaken or rubbed off and the rhizomes are then well washed with water. In Maharashtra, the cost of harvesting estimated to be about Rs.1250 to 1400 per hectare.

**Cleaning:** After harvesting, the rhizomes are well washed with water. The separation of bulbs and fingers is done to facilitate uniform cooking of the rhizomes and quicker the process of boiling.

**Boiling:** Formerly, the fresh rhizomes were heaped in the pans or filled in to the pots, and water was added, a thick layer of dried sugar cane leaves or turmeric leaves was packed into the remaining space and, in the Pan method the leaves were covered with cow dung, in the pot method, the lids were fastened with the same material or, in some places, it was added directly to the water. The rhizomes were then boiled over a slow fire until they soften i.e. when a thin pointed stick would penetrate them easily. The boiling takes 3 to 4 hours. The rhizomes were then cooled and spread out to dry in the sun.

## Methods of marketing of turmeric

**Assembling:** In general, the assembling of turmeric-takes place in two ways. First, the grosser they take the produce to the nearby market for sale. In the second method, the different assembling agencies such as village merchants, itinerant merchants, agents of wholesale merchants, exporters etc. purchase turmeric from the farmers in the villages or the farms and take the same to the wholesale markets.

**Sales in assembling markets:** In Tamil Nadu, the producers/

farmers bring their produce directly to the assembling markets at Erode, Salem and Karur. Turmeric is mostly polished at this stage. Double polishing and coloring is normally done later by the business community. The arrivals are routed through any of the three agencies- namely- The Commission Agents, Regulated Markets and Cooperative Marketing Society [7].

The Agricultural Market Committees (AMCs) have appointed the graders to facilitate the growers to grade their commodity preliminarily. Once auction is over, the weighment is done by the weigh men of the Agricultural Market Committee. The payment to the farmers will be arranged on the same day.

**Wholesale merchants and commission agents:** They are the most important agents who provide an important link between sellers and buyers in the assembling markets and take an active part in the marketing of turmeric. They are found to operate in all the assembling markets.

Major role is played by the wholesalers and Commission Agents in the main markets. The wholesalers are having direct contracts with the Exporters and Wholesalers of different States. In Andhra Pradesh, it is estimated that about 90% of the market arrivals is exported to other States as turmeric whole and the balance 10% for local consumption.

They perform a number of functions. After the produce is brought to their premises, the commission agents contact the intending purchasers, show them the samples and negotiate the price on behalf of the sellers and settle the deal. They supervise weighment and delivery and make payment to the sellers after deducting all the marketing expenses including their commission. They assume the responsibility for the payment to the sellers soon after they dispose of the produce even though they may collect the sale value from the buyers at a later date. They also provide storage facilities to the sellers, who may wish to wait for better price in the market. They advance loads to the sellers on the security of the produce deposited with them for sales. In some centers like Erode in Tamil Nadu, Naziabad in Andhra Pradesh and Sangli in Maharashtra, the commission agents give loads on interest to the growers to meet their cultivation expenses and other financial requirements. In such cases, it is customary for the producers to sell their turmeric only to that commission agent from whom they have borrowed. The turmeric is brought by the farmers to the god owns of commission agents in Erode for storage. The god own capacity is about 500 to 500 bags. Kucha receipts are provided to farmers and the produce is weighed and fumigated for storage, and the charges will be deducted from the sale proceeds. The Commission Agents provide advance to the farmers and samples of 2 to 3 kgs of turmeric are drawn and carried to the market yards [8].

The sale proceeds are received from the buyer by the commission agents in 10 to 20 days. The amount will be paid after deducting the advances and expenses incurred. In other markets like Salem, and other places, the Commission Agents operate on similar lines. The only difference is that the auctions are conducted at the premises of Commission Agents and the samples are not carried out to any separate market yards.

### Co-operative marketing societies

The primary objective of Co-operative Marketing Societies is to sell the produce brought by the producer member. The role of the cooperatives in the marketing of turmeric in Tamil Nadu and Maharashtra is briefly discussed here under:

### Market functionaries

**Commission agents:** In most of the assembling markets, commission agents themselves arrange for the disposal of the turmeric brought by the producers. Sometimes, commission agents perform the work of wholesale merchants, when they buy and sell the produce on their behalf.

**Brokers:** Brokers bring buyers and sellers together. They also perform the work as commission agents in some markets. The present survey reveals that brokers are found to buy operating in Cochin Market, Kerala and Burma Bazaar Market in Calcutta, West Bengal, where the brokerage of Rs. 2.50 is paid each buyer and the seller and Rs. 1.20 by sellers respectively.

**Weighment:** The commission agents engage their own men for weighment of the produce, in all the non-regulated markets. But in regulated markets, the weigh men may be the employees of the market committee or the commission agents, but they are licensed. They are expected to keep records to the quantities weighed by them and the market committee authorities supervise their work. The weigh men charges are prescribed by the market committee in regulated markets. The weighment charges are generally paid by the sellers.

**Hamals (Coolies):** The hamals attend the work of handling of the produce in the assembling markets or at places of delivery. In unregulated markets, they may be the employees of the commission agents or in most cases they are daily labors. However, in regulated markets, their charges are prescribed by the market committee.

**System of sale:** Open auctions and open agreements are the two important systems of sale followed in respect of turmeric in most of the assembling markets in our country. Sale by open auction is followed in the markets of Andhra Pradesh, Maharashtra, Tamil Nadu, while open agreement system is practiced in the States of Orissa and Kerala.

**Open auction:** This method of sale prevalent both in regulated markets of Duggirala, Tannku, Naziabad etc. and also in Cuddapah, Erode, Salem in Tamil Nadu and Sangli Market at Maharashtra State. Under this system, turmeric is brought by the producers or village merchants for sale to the commission agents, is separately auctioned by lots and is sold to the highest bidder from amongst the buyers participating in the auction, after the consent of the seller is obtained in regard to the price. Before auction, the producer of each seller is generally either heaped upon exhibited in open bags in front of commission agent's shops for examination of the quality by the buyers. Generally, the auction commences and is carried on between certain fixed hours, although during peak seasons, when arrivals are heavy, the auction may be continued throughout the day. The auctions are regulated markets, the auctions are supervised by the market committee authorities who also record the weight of each lot and register after the auction of each lot is completed. Generally, in most of the markets, the prices are offered after the buyers have examined the entire lot. Whenever the sellers are not agreeable to the price offered for their lot on a particular day, the lot may be retained for auction on the next day. In such cases, the lots unsold are kept overnight in the premises of the commission agents.

The commission agents arrange for the weighment and delivery of the produce to the buyers, after the auction is completed and the deal settled. The commission agent makes payment to the sellers on the same day after deduction various charges including his commission and collect the sale amount from the buyers later as manually agreed upon.

**Market charges:** In assembling market, the buyers and sellers have to pay in cash or sometimes in kind for various services, while selling or buying. The market charges include commission for commission agents, brokerage, charges of weighment and handling municipal tolls and taxes, and other relevant trade allowance etc. the commission get the commission on the basis of either the value or the weight of the produce. The market charges may be payable by sellers or by buyers in some markets, and by both in some markets.

**Distribution:** The various agencies engaged in the distribution of turmeric are (i) Merchants at assembling markets, (ii) forwarding agents; (iii) wholesale merchants at distributing and consuming markets; (iv) retailers; and (v) exporters.

The bulk of the marketable surpluses of turmeric available in the markets are purchased by these merchants. After that, they dispatch turmeric to the several distributing or consuming markets by sorting, grading, polishing etc. according to the preferences of the buyers.

**Forwarding agents:** Forwarding agents engaged in the assembling markets like, Sangli, Cuddapah, Erode etc. purchase turmeric in these markets on behalf of their Principals who may be either exporters or wholesale merchants at the distributing or consuming markets. They purchase the produce on the basis of instructions of their Principal agency and dispatch the produce to their principals after doing necessary processing. They receive commission from their principals for rendering the services.

**Retailers:** The consumers obtain their requirements of turmeric from the retailers; retailers are generally small shop keepers dealing in all house hold articles like, rice, pulses, oils and other provisions. The retailers get their supplies of turmeric from local wholesale merchants in very small quantities.

**Exporters:** Exporters purchase turmeric with a view to export to foreign markets and as such the quantities purchased by them do not figure in the distribution within the country. Exporters mainly operate in port towns like Mumbai, Chennai, Cochin, etc. and also in the assembling centers like, Erode, Calico, Aleppo, Karri, etc. The exporters at assembling markets purchase turmeric locally and dispatch the produce to foreign buyers after further processing and grading.

### **Turmeric business at Sangli district (study area)**

Sangli district in the Maharashtra State is a well-known for Turmeric (Rajapuri Type) production. It has also emerged as a wholesale market in the Turmeric through, the Turmeric production is less than 10% of the total production of Turmeric in country. This Turmeric business was established by administrator of Sangli state Captain Bark. The local crop of Sangli is quite small. But larger quantities of turmeric are traded at Sangli. The Sangli Turmeric market turnover is around Rs. 500 corer. Sangli district is the famous and the largest Turmeric processing centre and also Turmeric marketing center in the State of Maharashtra. The Sangli district is renowned throughout India for its Turmeric market. A unique turmeric storage method is adopted here.

In Sangli, there are two prominent and old organizations viz operating Turmeric Business known as A.P.M.C. Sangli which deals with open auction Trading System and The Spices and Oil Seeds Exchange Ltd. which deals with Future Contract Trading system of Turmeric Business. Open auction system is practice faded when the Agricultural Produce Market Act came into existence. The closed Tender System has given way to Open Auction System. Under this system if growers wish to sell their produce to the merchants of marketing society, the produce is displayed in the market yard and

inspects the Turmeric filled gunny bags displayed in rows and quote prices for each variety in tender slips and insert them in the tender boxes kept in the yard. The price determination of Turmeric in the market take place in following way one of representative from A.P.M.C. and Traders and agents assemble together of market place were first representative from APMC take initiative to set the beginning price for the Turmeric which go on rising till the response from the other member of stagnate of particular price announce by representative that the stagnated state of is taken as a final price. Theoretically, the open auction system is more transparent but in reality, in the opinion of the growers, the commission agents join hands in an unethical manner and exploit the growers. The Spices and Oil Seeds Exchange Ltd. one of prominent and oldest organization which deals with future contract trading; now mostly the future contract trading business system is carried out through online marketing system.

### **Agricultural produce market committee (APMC) Sangli**

Turmeric business of the Sangli primarily located in center place known as Sangli Market Yard envisage the following aspects successful outcome. The Turmeric market in Sangli district is situated in the outskirts of the city and is about 2 kms away on the Sangli- Miraj Road. All the marketing activities of the market are controlled by the Agricultural Produce Marketing Committee, Sangli. The total area of the market yard is about 99 Acres 38 R land is under acquisition process to extend the market yard. Transportation facility however is inadequate and the growers depend upon trucks and bullock carts to assemble the produce at the yard. To take part in the activities of the actual trade in the market yard, the person should procure a license from the market committee. The arrival of larger quantities of turmeric in Sangli is primarily due to the existence of the forward market and open auction at A.P.M.C. at Sangli in the form of rain-proof and weather-proof pits. The other contributing factors are good transport facilities and excellent banking facilities based on very good relations between banks and the trading community for quite a long time. There are available facilities for top class polishing of turmeric. AGMARK facilities are also available. Sangli is well connected with Mumbai port directly, thus reducing the heavy costs involved in storage, loading and unloading labor charges at Mumbai. As a result of all these facilities large quantities are traded at Sangli for local as well as for export purposes.

### **Market charges**

APMC market fee: 0.85 paisa (market cess: Rs. 0.80 paisa and 0.50 paisa supervision fee for the Government) (for per Rs. 100/- worth) Weighment charges: Rs. 1.65 paisa for per quintal, Hamalies (Coolies Charges): Rs. 2.66 per quintal Brokerage: 6% to commission agent Transportation Charges: Bullock carts: Rs. 8 to 10 (in local) Trucks as per distance. Storage in the central ware houses costs Rs. 8 per bag of Turmeric for one month. The purchase commission is 6% (Brokerage) per quintal and if sale is made by farmers or merchant from other places at Sangli, at 3% per quintal has to be paid by the seller to the commission agent. The present approximate expense for putting turmeric in pit is about Rs. 50 per quintal (without Adat (Traders commission)). When pit rents are low, this expenditure comes to about Rs. 14 per quintal. This expenditure includes rent charges, labour charges for making pala, weighment charges, and transport charges to the place of pit, etc.

### **Data Presentation and Analysis**

#### **Introduction**

After having collected the reliable information from growers

through primary and secondary sources, the same data is tabulated, graphically, represented in Figure 1 and thoroughly analyzed with the intention of developing proper inferences.

From the above Figure 1, it is found that, majority of the respondents i.e. 85% of respondents prefer 'Rajapuri' type of turmeric for the better productivity. Again 5% of the respondents prefer 'Kadappa' type of turmeric. Similarly, 5% of the respondents prefer to 'Selam'. Very few i.e. 3% of the respondents prefer 'Nizamabad' type of turmeric and remaining 2% of the respondents prefer other type. It seems that, majority of the respondents prefer to 'Rajapuri' type of turmeric for the better productivity.

From the above Figure 2, indicates that, there is response towards factors affecting of turmeric produce.

With respect to unfavorable climate of the total, 15% respondents are of the opinion that their turmeric produce is affected due to unfavorable climates with regards, poor marketing policies again 15% respondents are of the opinion that their turmeric produce is affected by poor marketing policies also 15% respondents have opined that their produce is affected due to unfair practices. But majority of respondents that is 85%, their turmeric produce is affected by mismanage of water resources and remaining 5% their turmeric, produce is affected due to lack of education.

From the above Figure 3, it indicates that, majority of the

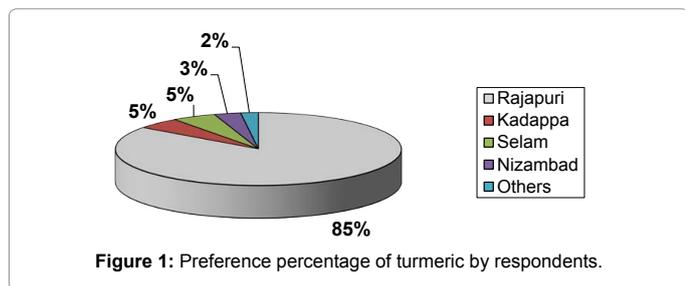


Figure 1: Preference percentage of turmeric by respondents.

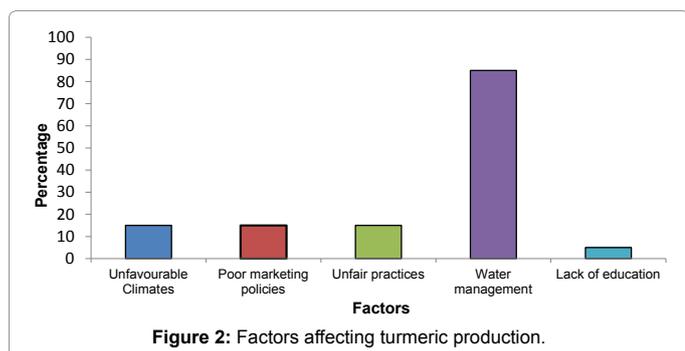


Figure 2: Factors affecting turmeric production.

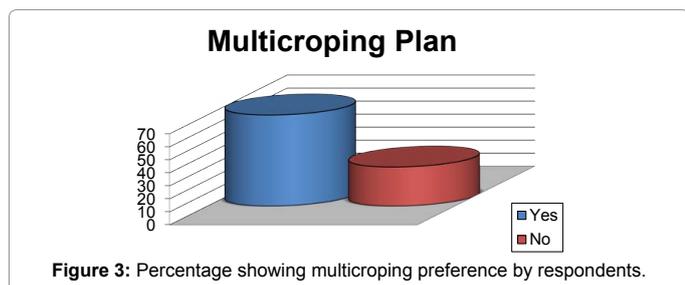


Figure 3: Percentage showing multicropping preference by respondents.

respondents i.e. 70% of the respondents prefer multi-cropping plan and 30% of respondents prefer producing of a turmeric yield only.

It seems that, very few of the growers fully concentrate on purely turmeric yield.

From the above Figure 4 it is observed that almost all the respondents i.e. 90% of respondents are aware about grading and standardization and very few 10% of the respondents are unaware about grading and standardization of turmeric yield. It seems that, almost all growers prefer grading and standardization.

From the above Figure 5, it is observed that 100% of respondents said that there is a good market demand for their turmeric yield.

It reveals that, almost all the growers are having the availability of market demand for their yield. Traders and Sellers through primary and secondary sources, the same data is tabulated, graphically, represented and thoroughly analyzed with the intention of developing proper inferences.

From the above Figure 6, it indicates that, majority of the respondents i.e. 75% respondents prefer quality of turmeric and 20% respondents gives preference to market Demand & Supply. Only 5% respondents consider online marketing. It seems that majority of

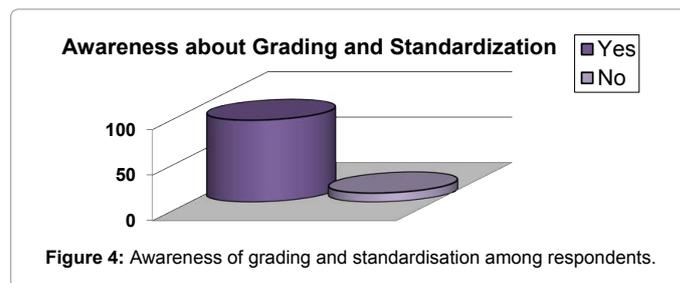


Figure 4: Awareness of grading and standardisation among respondents.

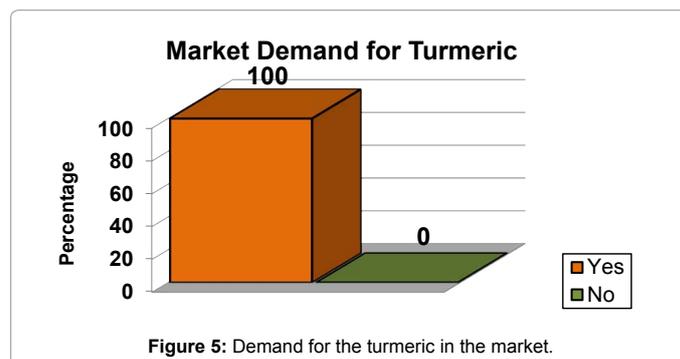


Figure 5: Demand for the turmeric in the market.

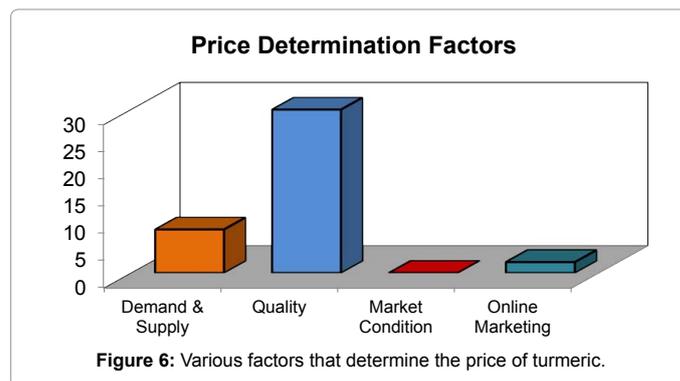


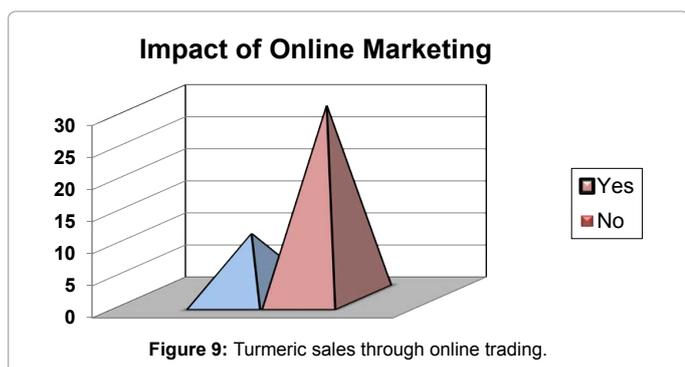
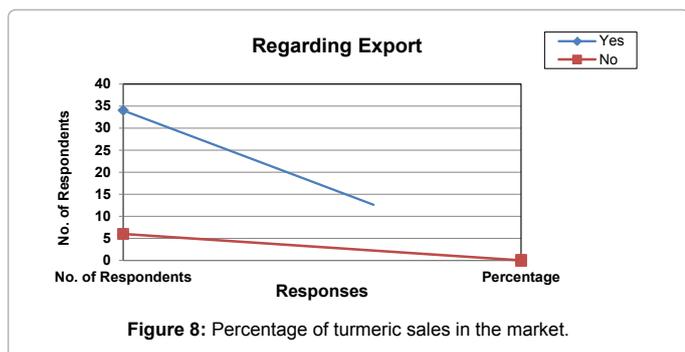
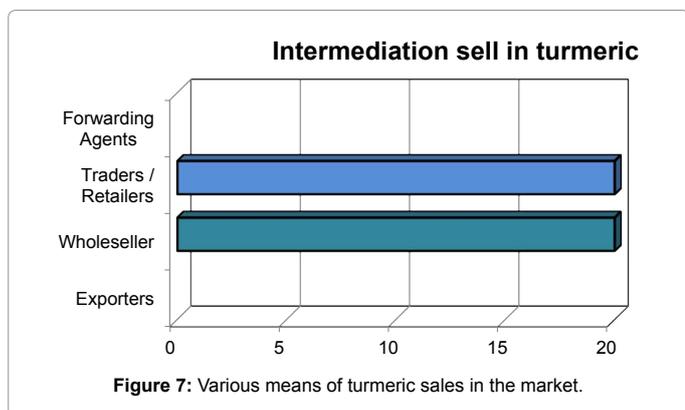
Figure 6: Various factors that determine the price of turmeric.

traders and sellers consider quality of turmeric produce as a important factor in price determination.

From the above Figure 7, it is observed that, majority of respondents i.e. 50% respondents agreed that wholesalers are intermediated to sell the product to customer and similarly 50% respondents belong to traders and retailer play an important role in the selling of turmeric. It seems that majority of turmeric trade is carried out through wholesaler, traders and retailers.

From the above Figure 8, it is observed that, majority of respondents i.e. 85% respondents, selling their turmeric product in domestic market and 6% respondents are exporting the turmeric produce. It seems that almost all the traders are interested in the domestic business of turmeric.

From the above Figure 9, it is shown that majority of the respondents 25% at respondents having awareness about impact of online marketing system and 75% of respondents still do not having awareness about impact online marketing system on turmeric marketing.



It is seemed that majority of the traders and sellers are not affected with effect of online marketing system.

### Major Findings and Suggestions

It is found that, the Rajapuri type of turmeric variety is more popular amongst the growers due to its length, color and yield quality and more favorable response from the growers and better remunerative price for this yield.

It is suggested that growers need to study the high yielding variety of turmeric like 'Rajapuri', get the consultancies of Agricultural officers in generating such type of varieties, cultivating it at proper timing, right time management of water and fertilizer requirement for better produce.

It is observed that majority of the farmers are not benefiting from various Government schemes and subsidies due to lack of awareness of education thus could not avail the benefits related to using scientific cultivation practices, subsidies fertilizers, pest controls etc.

It is suggested that, the policy makers should create awareness campaigns educate the farmers regarding proper cultivation practice, visit of agriculture officers, testing of soil and provide necessary information regarding various Governments schemes and policies. It is found majority of the growers cultivate turmeric produce as an alternative with other crops. This is the prime reason for low productivity because of mixing of crops it results in various crop diseases and by using different pest control.

It is suggested that, turmeric produce which is now treated as a secondary of alternative crop need to be taken as prime crop and not taking as a multicrop, so as to avoid the problems resulting from another crop in spreading various other diseases. It is observed that almost all the growers are aware with grading and standardization of the produce like color of the produce, its length, weight, thickness will result into 'A' grade, thus it seems that majority of the farmers or growers are aware about these factors.

Growers need to constantly review and check the quality of the produce. They should try to understand the benchmark set by some of the successful growers and meet the norms of Government bodies like AG MARK etc.

It is observed that almost all the growers are aware about the modern techniques i.e. proper cultivating with the use of tractors, boiling the turmeric, polishing the turmeric produce with the help of polish machine etc.

It is observed that almost all the growers do not have their own storing facility for their produce because of costly infrastructure maintenance of the property. It is suggested that the material growers need to take the help of rental storage systems seasonally and procure the produce in a very effective manner. It is analyzed that majority of growers do not having their own storing facility for the turmeric produce because it seems that almost all the growers incur high storage expenditure. It is suggested that turmeric growers need to unite and contribute towards setting permanent storage facility for them on co-operative basis. It is observed that, majority growers give preference to Central Government warehouse to storage yield and some of the growers prefer private owned storage facility again very few prefer natural pits. Because it is growers who rely on Government storage warehouses as the cost of setting up private storage is a costly business. It is suggested that growers need to increase the capacity of natural

pit storing facility. It is found that, still many of the growers do not get right remunerative price for their yield due to high expenditure for cultivation of turmeric and high use of pesticide, seeds and water and other middleman commission etc. It is suggested that turmeric growers need to unite and bargain on the right remunerative price with necessary maintenance of the quality yield. It is found that the quality produce is major factor in the determination of the price. Good quality produce will bring good price for the traders/sellers. It is suggested that sellers need to differentiate the produce on quality basis and charges more good quality produce. It is found majority of turmeric trade is carried out through wholesalers, traders and retailers. These play an important role in marketing of the turmeric produce. It is suggested that the distribution channel need to be more effective so, as to flow the produce at a right time at right place. It is observed that commission agents do not have any role in price determination of turmeric produce because market is based on open auction where turmeric is purchased directly from the traders. It is suggested that growers need to be involved in a price determination of turmeric produce as both traders and purchaser disagree the role of middlemen.

It is observed that, there is delay in payment from the customers because the turmeric produce has to be marketed in different forms. It is suggested traders and purchasers of turmeric produce have to sign memorandum of understanding (MOU) payments to avoid delay. It is found that grading and standardization play an important role in deciding the quality of the produce. It is suggested that grading and standardization of the produce have to be implemented as per guidelines by the certifying authorities. It is found that turmeric has good market because turmeric produce has multiple usages. So, most of the traders were satisfied with the turmeric business. It is suggested that the traders and sellers have no market their produce in new and untapped market. It is observed that still majority of traders and sellers are not involved in future trading. It is suggested that training and awareness programme have to be connected for commodity trading. So that they can take interest in a future trading market system. It is found that there is no role of Government bodies like A.P.M. (Agriculture Produce Market Committee) and MSAMB (Maharashtra State Agriculture Marketing Board) in price determination of turmeric produce due to "Open Auction" and future Trading Marketing System. It is suggested that APMC & MSAMB need to reframe their constitution for involving in a price determination of turmeric produce. It is observed that almost all the traders are interested in the domestic business of turmeric than the export due to high 'charged license fee for the export.

It is suggested that all traders and seller have to unit and apply to Central Government to reduce export license fees for enhancing export

business of turmeric produce. It is observed that majority of the sellers and traders sell their turmeric produce directly to commission agent's retailers and small sellers. It is suggested that trader and sellers need to concentrate on the direct sell to the customers. It will give more margin as profit to trader and sellers.

It is found that, majority of traders and seller get the financial assistance from the co-operative and other banks due to the good demand for the turmeric produce among the society. It is suggested that, last trader's i.e. small traders and sellers have to be benefited by the banks, for that bank's need to create awareness among the traders and sellers regarding loans. It is observed that majority of the traders and sellers do not have proper transportation facility, due to this reason they have exclusive private transportation. It is suggested that, association of turmeric traders/sellers as well as growers come together and with the help of APMC start their own transportation agency which will give them proper service at reasonable charges. It is found that surprisingly, all the traders and sellers do not have problems with labour for internal transportation, due to "Labor union in Maharashtra Mathadi Kamgar Union". It is suggested that, "Mathadi Kamgar Union" i.e. labor Union have to concentrate on work efficiency and labor welfare than the strikes. It is found that majority of traders and sellers are not affected with effect of online marketing system due to the fair and traditional open auction market system at Sangli Market Yard and also misunderstanding about online marketing system. It is suggested that, all traders and sellers have to develop interest about the online marketing system, i.e. website NCDEX National Commodity Derivative Exchange, which is helpful for growing turmeric business.

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