ABSTRACT
Fruits & Vegetables play an important part in having healthy life style. Fruits & Vegetables in proper balance prevent many diseases. Marketing of fruits & vegetables is more important as fruits and vegetables are perishable, seasonal and available in bulk. It is tough job to store the fruits and vegetables easily. Hence its proper marketing needs to be done. In India fruits & a vegetable marketing is mostly done in weekly bazaars. Majority of Indian population is based on agriculture as occupation the market of fruits & vegetable is in large scale. APMC operated taluka wise play an important role in marketing of fruits & vegetables. There has been concern in the recent years regarding the efficiency of marketing of fruits and vegetables in India. It is believed that poor efficiency in the marketing channels and Poor marketing infrastructure is leading to high and fluctuating consumer prices. The present paper is an attempt to elaborate fruits & vegetables marketing in Pune district.

Key words: Marketing Efficiency, Marketing, Fruits, Vegetables, Consumer price etc.

INTRODUCTION
India ranks second in the world in the production of Vegetables and third in production of fruits. Fruits and vegetable has gained more importance. Fruits & Vegetables farming is mostly labour intensive in India and provide substantial employment not only in production but also transportation, processing and marketing. For developed economies marketing efficiency of fruits and vegetable retailing industries is becoming increasingly important. India's diverse climate ensures availability of all varieties of fresh fruits & vegetables. There are certain problems faced by the farmers, wholesalers, retailers and customers in fruits & vegetable marketing. Like inappropriate estimation of market, fluctuation in demand & supply, price uncertainty, mismatch between production cost & selling cost. There are also the problems faced like availability of infrastructure, finance and credit supply on time, improper logistic channels. The big challenge is to have proper balance with existing intermediaries. Fruits & vegetables marketing have a huge opportunity with respect to Pune district. By having proper distribution channel the fruits and vegetables marketing efficiency can be increased.

OBJECTIVES
1. To study fruits & vegetables marketing in Pune district.
2. To identify problems faced by stakeholders, fruits and vegetables marketing problems and suggest suitable strategies.
3. To study the factors influencing the marketing cost, market margin and marketing efficiency.

HYPOTHESES OF THE STUDY
1. There is tremendous fluctuation in Fruits and Vegetables market price.
2. Marketing efficiency and profitability can be enhanced by proper marketing channel of fruits & vegetables.
3. Producers are unable to make appropriate marketing price estimation.
4. There is collusion among traders of fruits & Vegetables.

SCOPE OF THE STUDY
Geographical scope- Research work is related with Pune district only.
Selected Fruits : 1. Pomegranate. 2. Guava
Selected Vegetables : 1. Brinjal. 2. Tomato
LIMITATIONS OF THE STUDY

1. Study is related with selected Pune district only.
2. Study is related with selected fruits & vegetables and other are not covered.

RESEARCH METHODOLOGY

a) Primary data – Primary data is gathered from small retailers, wholesalers and farmers. Structured questionnaire is prepared and it is filled up by 200 farmers, 30 whole sellers & 60 retailers.
b) Secondary Data – Secondary data is gathered mainly from research articles, reference books on Fruits and vegetables vegetable retailing and retail management, research journals, publications, reports, websites, records from Agriculture Universities and APMC.
c) Population - Population for the study refers to the entire group of farmers, whole sellers . Retailers APMC related with production and marketing of fruits & vegetables Pune District.
d) Selection of Sample –
e) Selection of District –

Table 1: Selection of District (Pune district has been selected.)

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Name of the District Selected</th>
<th>Area Covered under Fruits (Ha.)</th>
<th>Area Covered under Vegetables (Ha.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pune</td>
<td>28551</td>
<td>25672</td>
</tr>
</tbody>
</table>

(Source: Report of the Joint Inspection Team for their visit to Maharashtra during 27th May to 3rd June, 2015 to review National Horticulture Mission Progress & District Profiles)

Justification for selection of District: Selected district have more area under fruits & vegetable cultivation

Table 2: Selection of Taluka and APMC

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Selected District</th>
<th>Selected Taluka</th>
<th>Selected APMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pune</td>
<td>Khed</td>
<td>Khed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Junnar</td>
<td>Junnar (Narayangaon)</td>
</tr>
</tbody>
</table>

Justification for selection of Taluka's & APMC: Selected Talukas have more area under cultivation for selected fruits & vegetables. AS the selection of Taluka is done its APMC is selected.

Table 3: Selection of Fruits and Vegetables Producer

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Selected District</th>
<th>Selected Taluka</th>
<th>Fruit Growers</th>
<th>Vegetable Growers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pune</td>
<td>Khed</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Junnar</td>
<td>30</td>
<td>70</td>
</tr>
</tbody>
</table>

Justification for selection of Fruit & vegetable Growers: Simple random & convenient sampling method is used for the selection of fruits & vegetables farmer in selected talukas.

Table 4: Selection of whole sellers & Retailers

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>District</th>
<th>Taluka</th>
<th>Fruit Whole seller</th>
<th>Vegetable Whole seller</th>
<th>Fruit Retailer</th>
<th>Vegetable Retailer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pune</td>
<td>Khed</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Junnar</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

Justification for selection of whole sellers & retailers: Convenient sampling method is used for selection of whole sellers & retailers for fruits & Vegetables.
f) **Techniques of Analysis**—Questionnaire is used to collect the data from respondents. Several questioning techniques is used to design questionnaire. The study has employed five point Likert scaled questions, multiple choice rating questions, dichotomous questions, close ended questions and single answer questions respectively. Excel and SPSS is used for data analysis.

**FINDINGS**

1. 95% farmers are male & 5% farmers are female. This shows that majority of farmers are male. 25% belongs to age category of 18-35, 38% to 36-45 and 37% above 46 years. This indicates that majority of farmers from age group above 36 yrs. 60% farmers are undergraduate followed by 32% graduate & 8% post graduate indicating that the literacy level in farmers is very poor.

2. 58% of irrigation is through flow, 15% by sprinkler & 27% by drip. This indicates poor awareness about proper & efficient irrigation method.

3. 65% family members work as the labour in filled & 35% farmers utilize the paid labour. This misleads poor calculation of variable cost.

4. 82% farmers are not aware about changing marketing practices. This indicates the inefficient use of proper marketing practices by farmers.

5. 100% farmers agree that pricing method of fruits and vegetable is wrong as price is governed by buyer and not seller. This leads to the wrong estimations of price & profit.

6. 94% farmers agree that inability to maintain stock is the major problem. This indicates that poor infrastructural facilities are available with high cost.

7. 78% said low investment, 82% said difficulties in getting returns from trades, 41% competition from other farmers, 74% said increased electricity rate, 16% said increased bank interest rates, 88% said price estimation, 74% said credit facility, 36% said natural calamities, 63% said demand estimation, 82% exploitation by traders, 73% said transport charges and 26% said non cooperation from Government officials are the major problems faced by farmers.

8. 14% farmers sell their produce in weekly markets, 16 commission agents, 18% whole sellers, 2% export agencies, 36% in nearest APMC and 14% to retailer. This indicates the farmers are not aware of proper marketing channel.

9. 33% farmers say that they receive payment after more than two days, 27% say two days, 27% say after one day and 12% say that they receive payment on same day. This indicates that the payment system is not standardized and regulated.

10. 42% farmers says profit margin is below 10%, 42% say between 11-20%, 10% say between 21-30%, 5% say between 31-40% and 1% say it's more than 40%. This indicates the profit share of farmers is very low and unpredictable.

11. 53% farmers agree that fruits are more profitable, 25% say vegetables and 3% say other crops are more profitable. This indicates the big reforms are needed to increase the profitability in vegetables & fruits.

12. 88% farmers say that there is no impact of government policies on farming of fruits & vegetables. This indicates that awareness among farmers regarding govt. policies is poor and need to be enhanced.

13. 100% farmers agree that they do not get the estimated price. This indicates that estimation is poor and pricing method is faulty.

14. 98% farmers say traders policies, 83% say faulty distribution channel, 70% say Government policies, 40% say excess production & 21% say natural calamities are the reason for not getting estimated price.
15. 76% farmers are not satisfied with role of APMC in selling fruits & 84% farmers are not satisfied with role of APMC in selling vegetables. This indicates that the role of APMC is inefficient in protecting farmer's interest.

16. 94% farmers agree that there is collusion among traders. This indicates the serious threat for efficient marketing system for farmers.

17. 86% farmers say government does not have control over traders. This indicates the legal amendments in rules for traders and APMC and their serious implementation is needed.

18. 76% retailers said marketing industry is going through structural change, 61.1% said system change is there and 82% said marketing industry changing in terms of service. 93% retailers agreed that now customers are having more options, 86% said customers taste is changing, 76% said customers beliefs are changing and 53% said there is change in customers loyalty. It states that customer behavioral pattern is changing.

19. 83% retailers say that marketing of fruits and vegetable have change in and as impact on business. terms of less pace, 87% say ambience, 72% say credit facility, 65% say parking facility, 73% say variety of commodity and brand, 81% say proximity, 93% say relationship with retailers, 82 say sale in loose quantity, 92% say place, 78% retailers say billing system, 88% say credit card system, 62% say costlier commodity price, 64% say multiple counters, 89% say supporting staff, 88% say delivery facility, 67% say discount facility & 89% say advertisement does not have impact on business. From this it can be concluded that retailers need to be made aware of changing marketing practices thoroughly.

20. 44% retailers agree that margin of profit is more than 40%, 30% say it is between 31-40%, 19% say it is 21-30% & 7% say it is between 11-20%.

21. 66% retailers say that prices are not as per estimation, while 44% retailers say that prices are as per estimation.

22. 70% retailers said there is no role of APMC in price control while 30% said APC as the role in price control.

23. 93% retailers agreed that distribution channel as impact on profit & 7% say that there is no impact of distribution channel on profit.

24. 77% retailers agree that the pricing system of fruits & vegetables is not correct and 33% say it is correct.

25. 87% whole sellers are aware of changing trade practices of fruits & vegetables marketing.

26. 93% whole sellers agree that customer behavior is changing in terms of taste, 90% say in terms of loyalty and 77% say it is changing in terms of belief. 85% whole sellers agree that wholesale trade is going change in terms of services, 80% in terms of systems & 70% in terms of structure.

27. 10% wholesellers strongly disagreed and 90% strongly agreed that discount given affect business.

28. 13% wholesellers strongly disagreed and 87% strongly agreed that stock maintenance affect business.

29. 87% wholesellers say that variety of fruits & vegetables as impact on their business.

30. 47% farmers agreed that their profit margin is above 40%, 20% said it is between 21-40, 28% said it is between 21-30% and 5% said it is between 11-20%.

31. 82% who sellers say prices are as per their estimation while 18% denied.

32. 72% whole sellers say that govt policy has an impact on business while 28% say there is no any impact of Govt. policy.

33. 68% whole sellers say that APC facilities are not up to the mark, 25% say it is good while 7% say it is very good.

34. 75% APMC members says traders policy, 67% say wrong estimation by farmers, 67% says government policy, 58% say demand supply imbalance & 50% say perishable nature of commodity is the major reason for price fluctuation.

35. 100% APMC members said that government should decide the pricing policy, 83% said free storage facility for farmers and 75% said there should be strict guidelines for traders from government.
36. 100% APMC members said most common charges paid by farmers are for labour, weighing, commission and
34% said for warehouse charges are paid.
37. 100% APMC members say there is impact of distribution channel on pricing & Profit
38. 100% APMC members say that trader's margin is more than 40%. & 75% APMC members say that farmers
margin is below 20% and 25% APMC members say it is between 20-40%.
39. 100% APMC members agree that price dependency is on traders policy. 83% say on quality, 75% say on demand & supply. While 100% APMC member agree that price does not depend on producer's policy.
40. 100% APMC member agree that there is collusion among traders.
41. APMC members suggest that farmers should encourage contract framing or group farming. They should take trainings on forecasting demand. They should plan the production schedule rather than following everyone. They should try to be present in APMC during auction as majority farmers send the produce and come to collect receipts.

SUGGESTIONS

1. Farmers should be made aware about proper marketing channels. This will increase marketing efficiency. Share of farmer in consumer rupee needs to be increased by various initiatives. Government needs to take special initiative in this regards through state marketing board.
2. Young qualified force should be attracted by launching new schemes for educated and young farmers. Professionalism will increase by this. Pensions system can be implemented in agriculture sector.
3. The operational & maintenance cost can be cut down by group farming and contract farming. Infrastructural facilities for fruits & vegetables must be completely provided by Government in order to tackle the problem of storage & portability of fruits & vegetables.
4. Initiatives to train farmers in having proper accounting will help them in tracking the production cost efficiently.
5. Markets at micro level need to be established with cold storage and infrastructural facilities for drying, processing, grading, storing, weighing, packaging, labeling & financing. Farmers should be made aware about the benefits in trading through APMC.
6. Special horticultural and agricultural trainings need to be provided to farmer's family to increase skills in order enhance the efficiency. State Agriculture Marketing Board has to take initiative in making famers aware about changing marketing practices. This will help in efficient use of proper marketing practices by farmers.
7. Forward & backward linkages, Future trading and specially input – output linkage needs of restructuring in the changing environment of agricultural marketing to increase share o farmer in consumer rupee. APMC needs to take strict initiative against collusion of traders to avoid the exploitation of producers.
8. Facilities of APMC need to be reviewed and further modification has to be considered to increase satisfaction level of its stake holders. Government should make efforts to provide physical facilities in and around the markets including storage, transport, processing leading in hindering the intermediaries in taking advantages from the situation.
9. Standard pricing policy for agriculture as to be prepared to have efficient distribution of consumer rupee among various stake holders. The price determining factor is traders policy this as to be shifted to producer policy considering the volatile nature of agriculture environment. Branding of fruits and vegetables should be initiated.
10. The online services can add in the value of fruits & vegetables marketing in large extent. Selection of proper channel of distribution yields more profit.
11. Fruits & vegetables market is going through change in terms of customer, structure, system & service. Farmers and traders need to be made aware and trained to sustain in this changing marketing environment.
Framers need to be provided knowledge about marketing cost, marketing margin and marketing efficiency and its estimation. Government has to take initiative in this with various institutions.

12. Agricultural universities & marketing boards. Should take initiative in designing channel of distribution for fruits and vegetables. They can help farmers need to plan their produce according to market and for these the extensive farmer training has to be taken in hands with various Government & private institutions.

13. Fluctuating market prices can be controlled with support price policies if implemented properly and efficiently. Training for the appropriate price estimation is the biggest call of hour and it has to initiate. Collusion has to be developed between producers and traders through various training programs and APMC acting as mediator in it.

14. The APMC must setup infrastructure with international standards in this era of liberalization, privatization and globalization.

CONCLUSION

Increase in literacy of consumer fruits & vegetables industry is in boom and through drastic change. There is change in customers' behavioral pattern and consumption pattern which has changed the scenario of retail industry. The share of producer in consumer rupees is hardly 8-15 percent which on other side is above 85% of the intermediaries. This states the need of reforms in fruit & vegetables retail industry in order to avoid exploitation of producer. Problems like availability of infrastructure finance and guidance is restricting them to select proper marketing channel. Labor needs to be managed properly and efficiently. Efficiency of marketing of fruits & vegetables is hampering due to lack of awareness about marketing environment among producers. In these lights of marketing reforms the problems of fruits and vegetables marketing are studied in this research and tried to overcome with some suggestions. Producers share as to be increased in the consumer rupees with proper marketing strategies. Government has to play a major role in increasing the marketing efficiency and solve the problems of producer and other intermediaries. This study has definitely found need of modern and redefined research tools and methodology in field of Agricultural marketing. Researcher is very much sure that these suggestions will improve the efficiency of Marketing of fruits & vegetables. Government has to play a lead role in this with the help of State Agriculture marketing Board and APMC with the private institutions.

REFERENCES