Chapter No. 07:

Findings, Conclusions and Suggestions.

- Introduction.
- Findings of the study.
- Hypotheses.
- Suggestions.
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**Introduction:**

The food processing sector has been identified as a thrust area for development. This industry has been included in the priority lending sector. Most food processing enterprises have been exempted from industrial licensing under the Industries (Development and Regulation) Act, 1951, with the exception of beer and alcoholic drinks and items reserved for Small Scale Sector. The demand for processed food is increasing due to rise in personal income, change in life style, increasing standard of living, social change, increasing number of hotel, restaurant, hostel etc. Due to shortage of time and increasing number of working women, the demand for instant baby food have increased a lot. At last it can be concluded that the prospect of fruit and vegetable processing industry in Marathwada region is bright. With large amount of local raw materials, infrastructural facilities, establishment of training institutions etc helps the entrepreneur to establish the food processing industry in the state.

The contribution of fruits and vegetables processing units to gross domestic product and gross domestic product of Marathwada region is larger than common belief. The sector has emerged as a major employer in the economy of the region as well as in the state. In addition to these the study reveals that the sector in the district faces some serious problems like capital, procurement of raw material, power supply etc. The Government officials and the others who are involved in the sector must perform awareness raising activities for the development of food processing sector. However, before setting up any food processing unit in the region, the entrepreneur is to make a thorough survey (SOWT analysis)
about the availability of local fruits and vegetables, the power position, soft water, availability of labors, packaging materials etc. Entrepreneurial training programmes related to the problems should be organized for small entrepreneurs so that they can gain the skill and knowledge. Moreover technology up gradation, financial management, material management, manufacturing techniques of agro products, brand promotion, advertising the product are some important areas of training needed by food processing entrepreneurs. Training should be given regarding environmental management, business opportunities and guidance, processing of agro products, labor management and procurement of raw materials. The system of contract farming must be encouraged which can solve the problem of procurement of raw materials.

The industry should be set up technically suitable for processing multiple food items over different seasons. Proper coverage should be given to all entrepreneurs regarding Govt. sponsored programmes. Before imparting training, the selections of the entrepreneur must be done after reviewing their project, objectives in a channelized manner. The resource persons must be experienced and have enough orientation to the programme. Food processing industry should be brought under an independent ministry of food processing industry at state level to coordinate with food processing ministry at the centre to avail the benefits of various central schemes. The general public should be given large scale publicity about the use of processed product. There are various opportunities and schemes forwarded by government and other levels, our entrepreneurs should utilize these opportunities
for the development of their own as well as the state economy as a whole. Analyzing the important variables in detail the study recommend a concrete approach for developing a comprehensive plan for expansion of different food based industries in the state. This exercise would not only provide a strong base and alternative option for creation of additional employment opportunities and avenues of income for rural households but it would help in reduction in the rate of rural-urban migration of population.

**Findings of the study:**

- 24 (15%) respondents were comes from the age group of 20 to 30 years, 51 (31.88%) respondents were from 31 to 40 year age group, 35 (21.88%) respondents were belongs to the age group of 41 to 50 years, 33 (20.62%) respondents were represents the age group of 51 to 60 and 17 (10.62%) were selected from the age group of 61 years and above.

- 107 (88.71%) were selected from male category while remaining 53 (33.12%) respondents were selected from female category.

- 64 (40%) selected from open category, 22 (13.75%) respondents were selected from S.C. category, 9 (5.62%) respondents were belongs to S.T. category, 16 (10%) respondents were selected from N.T. / D.N.T. category and 49 (30.63%) respondents were selected from the O.B.C. category.
- Out of 160 selected respondents 9 (5.63%) were Non-matric, 19 (11.87%) respondents were matric passed, 27 (16.88%) respondents were educated up to H.S.C, 52 (32.50) were graduate, 32 (20%) respondents were post-graduate and only 21 (13.12%) were completed food processing diploma.

- 122 (76.25%) respondents were married, 21 (13.13%) respondents were unmarried and 17 (10.62%) respondents were widowed or separated.

- Out of 160 selected respondents 7 (4.37%) respondent’s permanent family occupation was seasonal labours, 38 (23.75%) respondent’s family occupation was agriculture, 32 (20%) respondent’s family engaged in the services, 72 (45%) respondent’s family occupation was small business and 11 (6.88%) respondent’s family was engaged in other types of activities.

- The study shows that in 29 (18.13%) respondent’s family there was only one non-earner member, 41 (25.63%) respondent’s having 2 non members in their family, in 46 (20%) respondent’s family there was 3 non-earners members, 31 (19.37%) respondent’s family there was 4 members and in 13 (8.12%) respondent’s family 5 or more persons were non-earners.

- Out of 160 selected respondents; 17 (10.63%) respondents were engaged in fruits and vegetable processing units; 24 (15%) respondent’s units were under milk and milk products,
18 (11.25%) respondents were started meat, poultry and fishery unit under food processing sector, 22 (13.75%) respondents were engaged in grain processing units, 26 (16.25%) respondents were doing business in confectionary or consumer food products sector, 3 (1.88%) respondents were started mineral water units, 3 (1.88%) respondents were engaged in soft drink manufacturing business, 13 (8.13%) respondents were having cereals processing units, 16 (10%) respondents were in bread and bakery segments; 2 (1.25%) respondents were in edible oil sector of food processing industries, 5 (3.12%) respondents were engaged in spices processing units and 11 (6.86%) respondents were selected from Papad, Pickles, Chutany making industries.

- 16 (10%) respondents were started their business activity from last 2 years, 41 (25.63%) respondents established their unit from 2 to 4 years, 38 (23.75%) respondents were opened their food processing business from 4 to 6 years; 37 (23.12%) respondents were in food processing industry from last 6 to 8 years and 28 (17.50%) respondents were in food processing business from more than last 8 years.

- It can be noted that out of 160 selected respondents, 131 (81.88%) business units were registered with the government authorities while 18 (11.25%) business units was not registered with any government office and 11 (6.87%) respondents told that they were under the process of registration.
- 94 (58.75%) respondent’s business ownership was on the basis of single owner; followed by 43 (26.88%) respondents were partners in their business; 11 (6.88%) respondents were started food processing units under SHG activities; 5 (3.12%) respondents were member of food processing cooperative society and 7 (4.37%) units are under Private Ltd. Company.

- 89 (55.63%) respondents started their business activities at their own level; followed by 41 (25.62%) respondents were started their units under the Prime Minister Rozgar Yojana, 19 (11.88%) respondents undertakes their business activities under Swarnjayant Gram Swarozar Yojana, and 11 (6.87%) respondents started their business with the help of Self Help Group.

- 91 (56.88%) respondents were started their industrial units in urban areas; followed by 38 (23.75%) respondents were opened their food processing units in rural areas while remaining 31 (19.37%) respondents started their units at semi-urban areas of Marathwada region.

- It is concluded from the study that out of 160 respondents; 44 (27.50%) respondents were having fully automatic processing units; followed by 64 (40%) respondents were adopted semi-automatic processing technique while remaining 52 (32.50%) respondents using manual methods for food processing.
37 (23.12%) respondents were participated in food processing units due to their traditional family business, followed by 60 (37.50%) respondents told that they were motivated by governments programmes for food processing units, 11 (6.88%) respondents were opined that due to Self Help Group they were joined to food processing industry, 5 (3.12%) respondents were member of Food Processing Cooperative Society and that’s why they joined the business activity and 47 (29.38%) respondents were told that they were self motivated to start food processing units.

91 (56.88%) respondent’s business nature was permanent, followed by 43 (26.87%) respondents were engaged in seasonal type of business activities and 26 (16.25%) respondent’s business nature was a shortest period.

Out of 160 respondents; 54 (33.75%) respondents were invested up to Rs. 5 lakh in their food processing business, followed by 31 (19.38%) respondents were employed the amount of Rs. 5 to 10 lakh, 29 (18.12%) respondents told that they invested Rs. 10 to 15 lakh Rs. in their business as capital, 25 (15.63%) respondents were invested Rs. 15 to 20 Lakh, and 21 (13.12%) respondent’s invested more than Rs. 20 Lakh in the business as capital.

53 (33.13%) respondent were invested their own funds /saving or funds from friends or relatives as capital in the business, followed by 18 (11.25%) respondent’s business financial source was private finance from local money.
lenders, 78 (48.75%) respondents were availed finance from bank or financial institutions and remaining 11 (6.87%) respondents were provided the funds by their self help groups.

- 53 (33.13%) respondent were invested their own funds /saving or funds from friends or relatives as capital in the business, followed by 18 (11.25%) respondent’s business financial source was private finance from local money lenders, 78 (48.75%) respondents were availed finance from bank or financial institutions and remaining 11 (6.87%) respondents were provided the funds by their self help groups.

- It is concluded from the study that; out of 160 selected respondents; 64 (41.25%) respondents have their own business land; 27 (18.75%) respondents undertook a rented land for business purpose, 48 (11.25%) respondent’s told that they conducted their business on government allotted land under various programmes and 21 (20.63%) respondents were not developed their business on leased land or space.

- 51 (31.88%) respondents have completed the training programme organized by DIC; followed by 21 (13.12%) respondents completed food processing diploma course, 35 (21.88%) respondent’s told that they attended conferences and seminar on food processing and 53 (33.12%) respondents were not obtained any training programme on food processing.
57 (35.63%) respondents using primary processing method on food products; followed by 47 (29.38%) respondents use secondary processing on food products, 27 (16.87%) respondent’s told that they were directly engaged in manufacturing of food products and 29 (18.12%) respondents were engaged in grading and packaging of food products.

23 (14.38%) respondents using their own agro products for food processing; followed by 31 (19.37%) respondents were purchases raw material from farms, 42 (26.25%) respondents purchases raw material from local market places; 37 (23.13%) respondents told that they were purchases required raw material from district places and 27 (16.87%) respondents were purchases raw material from out of state.

25 (15.63%) respondents suffer losses of 10 per cent wastage; followed by 32 (20%) respondent’s production wastage was 11 to 20 per cent, 47 (29.37%) respondents told that there were 21 to 30 per cent wastage possibility in their business; 39 (24.38%) respondents told that 31 to 40 per cent wastage standard in their food processing units and 17 (10.62%) respondents facing a major challenge about wastage more than 41 per cent.

46 (28.75%) respondents suffer losses of wastage due to not availability of cold storage facility; followed by 53 (33.12%) respondents were not having own refrezration van for transportation and due to this wastages were occurred, 48 (30%) respondents complained that due to low quality of raw
material more wastage were remains in food processing; 31 (19.38%) respondents told that lack of automation of industrial units heavy wastage were remains and 33 (20.63%) respondents told that only normal wastage were seen in their business no abnormal wastage were in their food processing business.

- Out of 160 selected respondents; 26 (16.25%) respondents were benefited of Government Cold storage for storing of their products; 69 (43.13%) respondents were benefited by government subsidy, 39 (24.38%) respondents supported by government by way of raw material, 33 (20.63%) respondents were sells their food products to the government, and 48 (30%) respondents were allotted government land / space or shade.

- 39 (24.38%) respondents were adopting modern technology and machinery for manufacturing and processing; followed by 38 (23.75%) respondents were uses old or traditional type of machinery or technology for their business; 17 (10.62%) respondents were adopted partially manual or partially machinery for their food processing units; 37 (23.13%) respondents told that they were processing the food products by manually and remaining 29 (18.12%) respondents business is depends on only grading, packaging and distribution of food products so there is no need of modern technology in their business.
Out of 160 selected respondents 65 (40.63%) respondent’s business were completely depends on electricity supply; followed by 56 (35%) respondents told that the need of electricity is 50 per cent of their business and 39 (24.37%) respondents told that electricity supply is not the compulsory requirements for their business.

57 (32.73%) respondent’s business activities required skill labour, followed by 51 (31.87%) respondents were required semi-skilled labour for their business activities and 52 (32.50%) respondents running their business activity by unskilled labours.

Out of selected 160 respondents; 35 (21.88%) were engaged up to 5 workers in their food processing business, 44 (27.50%) respondents were giving the employment opportunity to 6 to 10 people in their business, 27 (16.88%) respondents business units provided employment opportunity to 11 to 15 workers, 29 (18.12%) respondents were engaged 16 to 20 workers in their business and 25 (15.62%) respondents were engaged more than 21 labours in their industrial units.

37 (23.13%) respondent’s annual turnover was up to Rs. 2 Lakh, followed by 51 (31.88%) respondents secured turnover during Rs. 2 to 4 lakh, 30 (18.75%) respondent’s annual sales was Rs. 5-7 Lakh, 23 (14.37%) respondent’s annual turnover records during Rs. 7-10 Lakh, and 19 (11.87%) respondents
turnover shows high performance in sales during the year was more than Rs. 10 lakh.

- 58 (36.25%) respondent’s annual profit was up to Rs. 2 Lakh, followed by 43 (26.88%) respondents earned profit from the food processing business during Rs. 2 to 2 lakh, 27 (16.88%) respondent’s annual profit was Rs. 3-4 Lakh, 21 (13.12%) respondent’s recorded profit during the year was Rs. 4-5 Lakh, and 11 (6.87%) respondents shows their strong performance in their profit volume during the year was more than Rs. 5 lakh.

- 33 (20.63%) respondents supplies their produced goods to the directly government stores, followed by 51 (31.88%) respondents sales their products at wholesale open market, 61 (38.13%) respondents told that they sold their product at retail markets, 29 (18.13%) respondents marketed their products to big industrial houses, and 29 (18.13%) respondents marketed their products at weekly bazaars or exhibitions.

- 67 (41.88%) respondent’s areas of marketing was restricted to local only, followed by 59 (36.88%) respondents told that they were sold their products also at district level markets, 34 (21.25%) respondents marketing area limited up to state level and 21 (13.13%) respondents told that they were sold their products out of the state of Maharashtra.
67 (41.88%) respondent’s told that the concentrate on quality manufacturing or processing of food products, followed by 51 (31.88%) respondents told that they were strictly followed government rules and regulations about food processing, 49 (30.63%) respondents told that food inspector continuously checking their food products; 71 (44.37%) respondents obtained standard grade like ISO, ISI, Agmark for their food products and they strictly followed standard grading system and 37 (23.13%) respondents told that they were undertook internal control system for securing of food products.

It is concluded from the study that on an average 30.63 per cent respondent ranked to fully adequate, 20.62 per cent respondents were ranked to somewhat adequate, 45 per cent respondents ranked not adequate and 3.75 per cent respondents were not having any opinion in this matter.

147 (91.88%) respondents told that they were continuously facing the financial problems i.e. Shortage of funds, Recovery from debtors, Bank guarantee, less sanction of loan, delayed in payment, heavy installments & rate of interests, Misbehavior of bank officers in their unit.

135 (84.38%) respondents facing the problems which are related to marketing, Packing, Product finishing, Advertising, Supply of products, and logistics.

133 (83.13%) respondents expressed that they were infrastructural problems like electricity supply, road
networks, governments support for their food processing industry.

- 124 (77.50%) respondents were opined that non-availability of skilled or semi-skilled labours is one of the major problems in food processing industry.

- 111 (69.38%) respondents told that the cold storage facilities is one of the important factor for food processing industry but such type of facilities is not provided by any agency.

- 97 (60.63%) respondents complained that required raw material is available in only in the specific seasons that’s why overstock is maintained for that.

- 87 (54.38%) respondents complained that the research training & guidance for their business are not available for them; and the expert from the city areas were not interested to come.

- 76 (47.50%) respondents were disappearing from the government support for their units. They were facing the problems from food inspectors or government officers. They were expecting government support in different activities.

- 55 (34.38%) respondents expressed that cultural barriers or preferences is one of the problems related to food industries.
• 49 (30.63%) respondents expressed that Market information and Technical Know-how is not reachable to them for development of food processing unit.

• It concluded from the study that 29 (18.12%) respondents were fully satisfied in their food processing units; followed by 13 (8.13%) respondents were just satisfied; 7 (4.37%) respondents were not responded; highest number of respondents i.e. 79 (49.38%) told that they were not satisfied and 32 (20%) respondents were fully not satisfied in food processing industry.

Hypotheses:
Hypothesis No. 01:

Food processing units in Marathwada region started under Government Programmes.

Central or State government started number of programmes or schemes for the development of food processing industry. The Table No. 6.12 raveled that out of 160 selected respondents, 41 (25.62%) respondents were started their units under the Prime Minister Rozgar Yojana, 19 (11.88%) respondents undertakes their business activities under Swarnjayant Gram Swarozar Yojana. It is concluded from the discussion that only 41+19= 60 (50%) respondents were started their units under government programmes. The hypothesis formulated for the study is rejected on the basis of Table No. 6.12.
Hypothesis No. 02:
Food processing units faces the problems of wastage up to 40% during the production process.
It is concluded from the Table No. 6.24 that; 25 (15.63%) respondents suffer losses of 10 per cent wastage; followed by 32 (20%) respondent’s production wastage was 11 to 20 per cent, 47 (29.37%) respondents told that there were 21 to 30 per cent wastage possibility in their business; 39 (24.38%) respondents told that 31 to 40 per cent wastage standard in their food processing units and 17 (10.62%) respondents facing a major challenge about wastage more than 41 per cent. It is concluded form the Table No. 6.24 that heavy food wastage were seen during the processing of food in selected industrial units; that’s why the hypothesis selected for the study is highly accepted.

Hypothesis No. 03:
Infrastructure facilities are not adequate in Marathwada region for food processing industry.
It concluded from the Table No. 6.36 that on an average 30.63 per cent respondent ranked to fully adequate, 20.62 per cent respondents were ranked to somewhat adequate, 45 per cent respondents ranked not adequate and 3.75 per cent respondents were not having any opinion in this matter. Only 51 per cent respondent told that adequate infrastructure facilities were available to food processing industry, hence on the basis of Table No. 6.36 the hypothesis formulated for the study is accepted.
Conclusions:

The following conclusions were drawn on the basis of present study.

- India is the second largest producer of food in the world. Whether it is canned food, processed food, food grains, dairy products, frozen food, fish, meat, poultry, the Indian agro industry has a huge potential.

- India's food-processing sector covers fruit and vegetables; meat and poultry; milk and milk products, alcoholic beverages, fisheries, plantation, grain processing and other consumer product like confectionery, chocolates and cocoa products, soya-based products, mineral water, high protein foods etc.

- Food processing industries are beneficial to relieve pressure on land, establish linkages between agriculture and industry, increase employment opportunities, improve the economic well-being of rural people by increasing their income, and to prevent migration of rural population to cities, which increase slums.

- India's strong agricultural base and accelerating economic growth holds a significant potential for the Food Processing Industry that provides a strong link between agriculture and consumers.
• Processing is done to make raw commodities edible through primary and secondary processing and ready to eat through tertiary processing.

• Processing foods also makes it possible for manufacturers to provide consumers with a greater variety of foods.

• Food-processing is now regarded as the sunrise sector in Marathwada region in view of its large potential for growth and likely socio economic impact specifically on employment and income generation.

• Globalization of the economy together with government incentives has created new opportunities in the food processing industry.

• Properly developed, food-processing sector can make the state a major player at the global level for marketing and supply of processed food, feed and a wide range of animal products.

• Only 2 per cent fruits and vegetables, 35 per cent milk, 21 per cent of meat and 6 per cent of poultry products are only being processed at present.

• The total food production of India is estimated to double in the next ten years. Hence there is an opportunity for large investments in food and food processing technologies, skills and equipment.
There is ample of opportunities for investments in food and food-processing technologies, equipments, especially in areas of canning, dairy and food-processing, specialty processing, packaging, frozen food and thermo processing, cold chains and in the area of food retail.

The Food processing sector currently faces many challenges emanating from the poor performance of the national economy, uncertainties that exist over access to finances, limited research, limited technical advice, limited marketing information and lack of reliable markets.

Food-processing industry is facing constraints like non-availability of adequate infrastructural facilities, lack of adequate quality control and testing infrastructure, inefficient supply chain, seasonality of raw material, high inventory carrying cost, high taxation, high packaging cost, affordability and cultural preference of fresh food.

Many positive developments in the food processing sector have also resulted in the apprehension about the emerging skill shortages due to mismatch between the demand for specific skills and available supply.

Good processing techniques, packaging, transportation and storage can play an important role in reducing spoilage and extending shelf life.
A well developed food processing industry is expected to increase farm gate prices, reduce wastages, ensure value addition, promote crop diversification, generate employment opportunities as well as export earnings.

Marathwada region has a large untapped customer base and even a small footprint in the domestic market would enable the player to gain significant volumes.

The development and implementation of new food processing technologies enhances food quality and safety.

The number of working women, single students / professionals and nuclear families are creating demand for processed ready-to-eat foods.

Growth of food processing industries would provide expanding demand for farm produce, vegetables, fruits and other greens that would help improve agricultural incomes.

The food processing industry has strong backward linkages with rural economy, as all the raw material is produced by rural people. Hence, any growth in food processing industry, positive or negative will have a direct impact on economy of rural India.

Food processing industries are included in the list of priority sector for bank lending in order to ensure easy availability of credit to them.
Food processing industry employs 13 million people directly and 35 million people indirectly and the kind of growth industry is having it is expected that it will create job opportunities for large part of workforce.

This industry also generates significant employment not only in the production line but all along the supply chain: storage of produce, distribution and in retailing.

Food products are the single largest component of private consumption expenditure, accounting for as much as 49 per cent of the total spending.

The absence of proper cold storage facilities leads to wastage of produce, which amounts as high as 35 per cent.

The entry of big brands in food industry has created a tiff competition for local small players.

Market information not easily accessible to Small entrepreneurs. They cannot buy international journals / magazines to find the latest trends in demand /innovation. Most of them also don’t know how to use internet for business/marketing.

The government has laboratories that food producers send their products too to be tested to receive the appropriate certification.
The Food Processing Industry in India is on an assured track of growth and profitability. It is expected to attract phenomenal investment in capital, human, technological and financial areas.

The total food production of India is estimated to double in the next ten years. Hence there is an opportunity for large investments in food and food processing technologies, skills and equipment.

India's strong agricultural base and accelerating economic growth holds a significant potential for the Food Processing Industry that provides a strong link between agriculture and consumers.

Food-processing sector has the potential of attracting US $33 billion of investment in 10 years and generate employment of 9 million person-days.

The percentage of income spent in households will drive growth in the food market. Food accounts for the largest share of consumer spending.

The food-processing sector in India is clearly an attractive sector for investment and offers significant growth potential to investors.

The liberalization of the Indian economy and world trade and rising consumer prosperity has thrown up new opportunities...
for diversification in the food-processing sector and opened new vistas for growth.

- Indian food industry is gradually making an important mark in the global food arena as a large producer and exporter of agro food products.

- Food processing industries play a crucial role in reducing post-harvest losses.

- Promotion of food processing also helps in energy conservation by reducing energy wastages in home cooking.

- Processed foods need to be offered to the consumer in hygienic and attractive packaging, and at low incremental costs.

- The food sector in India is governed by a number of different statutes rather than a single comprehensive enactment.

- Shortage of skilled, semi-skilled and unskilled workers has emerged as a critical factor impacting the competitiveness of Indian food industry.

- Food processing industry would help in reducing rural urban disparity and ensuring household food and nutritional security for all at an affordable cost.
India is a front runner in many fruits and vegetables with share in world production as - 41 per cent of mango, 23 per cent of banana, 24 per cent of cashew nut, 10 per cent of onion, 30 per cent of cauliflower, 36 per cent of green peas.

The technology is available but political will and commitment is required to implement the program to shape a new India in the new millennium where everyone would be healthy and happy.

A substantial amount of post harvest losses could be prevented if appropriate agro-processing centers having backward linkage with farmers to ensure constant supply of quality raw food materials are established and operated.

Indian food processing industry is growing at a healthy rate, and two sectors which are driving the growth are dairy sector and horticulture sector.

Safety is also a major concern in food processing, especially industrial processing to create packaged foods which are sold commercially.

Indian Organic Food industry currently pegged at $ 189 million in 2011 is stated to grow at a 45 per cent, to reach $ 1733 million by 2017.

Currently most of the processing in India is manual. There is limited use of technology like pre-cooling facilities for
vegetables, controlled atmospheric storage and irradiation facilities.

- It is important that the farmers and backward communities working in rural food-processing units are treated at the top of the growth process. Rapid and sustained poverty reduction requires economic growth which is inclusive and the one that allows people to contribute to and benefit from it.

- The challenges for the food preservation, distribution and processing sectors are diverse and demanding, and need to be addressed on several fronts to derive maximum market benefits.

- Out of the agro processing sector in rural areas, the food processing industry is the second most important Industry, in terms of revenue generation. But there is a huge productivity gap because of the use of traditional technology in production.

- No industrial license required for food and agro processing industries except for alcoholic beverages and items reserved for small scale sector.

- The sector has been characterised by poor marketing, transport and communication infrastructure. The market density of fruits and vegetables is low and facilities for storage and cold chains in the hinterlands are woefully inadequate. Erratic and inadequate power supply, lack of
roads, education and health facilities and no or low rural industrialization accentuates the problems. There is lack of integration of local markets with national and global ones to support faster and more diversified growth. Lack of maintenance of infrastructure because of limited and declining public resources and the absence of community involvement in the protection of community assets and poor cargo facilities at airports and ports are other bottlenecks. Infrastructure for extension of food technology is hampered. Moreover, there is lack of organised marketing system in meat and poultry products. The system is obsolete, with primitive methods of sale of live birds or unhygienic slaughtered birds. A similar poor system exists in towns and small cities in the case of pork and pork products.

- Financial institutions do not have the capacity to appraise hi-tech export-oriented projects. There are no suitable insurance schemes for such projects, most of which deal in export of perishables. In financing projects like high density farming, greenhouse floriculture, controlled environment livestock farming, bio-technology, tissue culture, embryo transfer technology, bio-pesticides and bio-fertilizer, etc., the banks face considerable risk like credit risks. With new technology, the risk perception is higher than the existing one. Since it has not been tested in actual situations, the chances of failure of new technology are higher. For risk of rejection by consumer or by sovereign intervention foreign exchange risks, ECGC cover is available only in cases of insolvency/default of importers.
- Taxes on processed food in India are among the highest in the world. No other country imposes excise duty on processed food. No country distinguishes between branded and unbranded food sectors for taxation. There is excise duty of 16% in the form of CENVAT levied on food products and then there is sales tax, octroi, mandi samiti, entry tax and customs duty on material, levied by the Central/State/Local bodies. The net effect ranges from 21% to 30% on various food items. India is the only country to have levied excise duty on machinery and equipment for processed foods.

- Indian consumers are very price-sensitive and cost reductions are imperative to raise demand and consumption of food products. Since the net effect of various taxes falls directly on the price, the off-take of processed food items remains low.

**Suggestions:**

*The following suggestions were offered for betterment of food processing industries in Marathwada region.*

- Processed foods need to be offered to the consumer in hygienic and attractive packaging, and at low incremental costs.

- The food processing sector is governed by statues rather than a single comprehensive policy on food processing. India urgently needs a national food processing policy which
incorporates tax breaks for the sector. The policy to be effective will have to be comprehensive and adopt a number of legislative, administrative and promotional measures. The policy should evolve through detailed discussions between all the stakeholders.

- In the emerging scenario, the Food Engineering professional needs to develop sufficient awareness and appreciation of the relevant principles of life sciences, and physical sciences, as well as of a wide variety of other topics including: nutrition, preservation and storage techniques, processing unit operations, bio-processing, waste management, distribution and supply chain management, food laws and regulations and so on.

- Besides, the professional needs to develop an appreciation of R&D and innovation in critical technology areas such as newer or novel process development in preservation and storage techniques, theology, colloids and dispersal systems, packaging-polymers and composites, sensors for detection and process control, bioprocess engineering etc.

- Establishment of modern plants with sophisticated technology would help reduce crop wastage due to seasonal gluts and the perishable nature of farm products.

- Integrated cold chain and preservation infrastructure can be set up by individuals or groups of entrepreneurs with
business interest in cold chain solutions and also by those who manage supply chain.

- The Government of India and Maharashtra should give considerable importance to the food-processing sector.

- Universities should offer special courses for food processing and entrepreneurship development.

- The food processing industries in Marathwada should obtain ISO 22000:2005 for maintaining the quality in processed foods.

- A Food Map should be developed by the government with the help of food clusters across the country. The Food Map will not only help identify strengths in terms of crop strength, production, processing, but also help the government to ensure the desired interventions to expand the food export market and develop brand India.

- The Food Processing Ministry should working to devise new schemes to provide last mile delivery to farmers, which include ‘Farm to Shelf’ schemes like setting up mobile processing vans which could reach out to farmers, and setting up small food processing units providing business incubation, training and a processing centre at village level so that farmers’ produce is processed and reach markets.
- It is suggested that de-regulate and simplify governmental systems, processes and clearances that delay food processing projects, causing huge losses to the companies putting up projects.

- It is suggested that minimize wastage at all stages in the food processing chain by the development of infrastructure for storage, transportation and processing of agro-food produce.

- Use efficiently agricultural residues and by-products of the primary agricultural produce as well as of the processed industry.

- Encourage R&D in food processing for product and process development and improved packaging.

- Provide policy support, promotional initiatives and physical facilities to promote value added exports.

- Promote rationalization of tariffs and duties relating to food processing sector.

- Create the critical infrastructure to fill the gaps in the supply chain from farm to consumer.

- Entrepreneurship Development Programme / Training on Food Processing Industries should have been conducted with the help of the Food Processing Industries, Govt. of India and Maharashtra in Marathwada region.
With growing health awareness among the people coupled with rising disposable incomes and support from Indian government, organic food will surely secure a permanent place in Indian households.

The challenges for the food preservation, distribution and processing sectors are diverse and demanding, and need to be addressed on several fronts to derive maximum market benefits.

The government and the industry should focus on market needs and try to meet the demand, rather than putting our own production in the market with low realisation.

The focus should be market-backward, and not production-forward. If there is a demand for fruits and vegetables, we must supply the same instead of supplying the same fruit, thus fetching a lower price. Although it is a long process and will take time, the government, agricultural universities and companies should focus on this.

Success stories include grapes and banana. They have changed the economics of the trade. The same route must be followed in case of other fruit and vegetables.

All food processing units will get 25 per cent grant once there proposal is approved and same will be routed through only one channel which hassle free.
- MOFPI will provide all technical and financial assistance to food processing units in Marathwada region.

- Joint Committee will be formed to solve the problems related to food processing through one window.

- 100 per cent tax benefit for cold storage for initial 5 yrs. FDI are also encouraged.

- National plan for improvement and extension of food-processing technology at farm, traditional small industry and modern industry levels should be prepared. The plan should take into account the diversity in resources and needs of different regions in the Country. It should include programme details and implementation schedule for the first four or five years. The progress of plan implementation should be periodically reviewed to allow adjustments and corrective measures, and to develop programme details for the years beyond the period under review.

- Thrust areas for research and development should be identified and medium term research and development programme should be prepared and implemented to support the national plan for improvement and extension of food-processing technology at different levels. Treatment and utilization of effluents from food-processing industry should be included in the R.D. programme.
■ Emphasis should be put on the establishment of new food-industrial plants in the production catchments to minimize transport cost, make use lower cost land and more abundant water supply, create employment opportunity in the rural sector and utilize process waste and by-products for feed, irrigation and manure.

■ Establishment of cold chain and provision of low cost pre-cooling facilities for farmers, entrepreneurs, traders and consumers would be encouraged and they will be trained to bring about attitude changes. Efforts will be made to disseminate market intelligence to enable farmers to fetch higher value for their produce.

■ Efforts will be made to motivate farmers/industries to use insulated / refrigerated vehicles for transporting raw materials from the place of production / harvest to the point of consumption, to avoid wastage and quality deterioration.

■ Establishment of cold storages and cold chain facilities would be encouraged.

■ The interactive between technology, economy, environment and society will be promoted for quicker development of agro-processing industries and to build up a substantial base for production of value-added products for domestic and export market with special emphasis on food safety and quality, taking into account all aspects of Total Quality Management (TQM) and Hazard Analysis and Critical
Control Points (HACCP) to achieve international standards. Sustained R&D activities will be encouraged through recognised institutions having expertise in respective fields.

- Extensive training will be provided to farmers and cooperatives in postharvest management of agro-produce to encourage creating pre-processing facilities near farms. Facilities may include provision for washing, fumigation, packaging, etc.

- Efforts will be made to encourage the setting up of agro-processing facilities as close to the area of production as possible to avoid wastages in transporting raw materials to faraway places and to ensure increased value addition, specially for horticultural produce.

- Efforts will be made to improve general awareness about the advantages of consuming processed foods to stimulate domestic demand. Unfounded apprehensions about consuming processed food will also be removed.

- The Central and State Governments will work closely and evolve joint efforts to provide an enabling environment to entrepreneurs to set up food processing enterprises in the backward districts of Marathwada region.

- Fiscal initiatives/interventions like rationalization of tax structure on fresh food as also processed foods and machinery are a must. This is necessary to provide processed
food at reasonable prices as well as to stimulate domestic demand. The aims of the National Policy on food enterprises are sought to be achieved by adopting initiatives and practices congenial to industrial development in the processed food sector. A concentrated promotion campaign is vital to create market for processed foods. Multinational companies can take care of their products for they have large funds for promotional campaigns. The Department will continue to provide financial assistance to industry associations, NGOs/Cooperatives, private sector units, state government organisation for market promotion and brand formation.

- Efforts will be made to expand the availability of raw material and improve their quality for agro-based processing activities round the year by increasing production, improving productivity and yield.

- The information / database for the industry will be strengthened to ensure greater reliability and thus help in planning and policy making. This is proposed to be achieved through studies and surveys in various states. The information will be vital for the industry to plan investments in appropriate sector matching availability of resources and market conditions.

- The development and implementation of new technologies enhances food quality and safety. New and innovative
products, some with unique product attributes, have been developed through the use of new processing technologies.

**Future studies:**
The following studies can be undertaken –

- Similar study with area specific with more samples.
- Comparative studies of women entrepreneurs between districts and state.
- Similar study with women engaged in other type of enterprises.
- Studies including the perception of others regarding women entrepreneurs can be undertaken.
- Study of wastages in food processing sectors.
- Employment opportunities in food processing sectors.
- Entrepreneurship development in food processing sector of Marathwada region.