CHAPTER - VI
CONCLUSION AND RECOMMENDATIONS

In this chapter, all the main points of previous discussion put together as conclusion. For this purpose it has been divided into two sections. Section I deals with conclusion and main findings, and section II deals with recommendations.

Section –I

Conclusion and main findings

1. Areas where competencies to be capitalized upon

1.1 One of the findings of this study is that availability of Raw material is emerged as strength of Processed Food Industry. Further, there is significant difference in availability of raw material among processed food Industries due to significant difference in storage facility, seasonal availability, nature of raw material (e.g. perishability) etc. Easy availability of raw material is also supported by Dev (2004)

1.2 Another strength of the Processed Food Industry comes out to be in terms of quality of raw material. Although, there is significant difference in quality of raw material among processed food Industries but it is due to differences of technology used and scale of industry.

1.3 Variety of Raw material is also strength of Processed Food Industry. Further, there is significant difference in varieties of raw material among processed food Industries as small players are not enjoying competitiveness in terms of varieties of raw material because they purchase raw material from local markets therefore they doesn’t have much choice of variety of raw material, whereas larger ones enjoy economies of scale in procuring even form off places.

1.4 Processed Food Industry is enjoying comparative advantage in terms of storage facility. In auxiliary, there is significant difference in
storage facility among processed food Industries due to difference in scale of Industries and availability of raw material.

1.5 Processed Food Industry is having competitiveness in terms of **cost of raw material** as units are closer to grower’s location and prices are depressed during harvesting time. However, there is significant difference among processed food Industries due to difference in the availability and storage facility of raw material.

1.6 Processed Food Industry is having comparative advantage in terms of **labour availability** and there is no significant difference among processed food Industries because of labour intensive nature of Indian economy.

1.7 Processed Food Industry however is having potential in terms of **unskilled labour cost** and enjoying competitiveness. There is no significant difference in unskilled labour cost among processed food Industries.

1.8 Processed Food Industry is enjoying competitiveness in **Discount and rebate** as it’s mean value is greater than 3 and weighted average more than 0.20. However, there is significant difference in discount and rebates among processed food Industries due to difference in scale of industry. The competitiveness is low in large size due to their established brands and they prefer not to compete on the basis of price, moreover the large size players are operating under cooperative forms of business.

1.9 Pricing policy is competitive in the Processed Food Industry and there is significant difference in pricing policies among processed food Industries due to difference in scale of industry.

1.10 **Pricing at low margin** is comes out as a strength of Processed Food Industry. However, there is significant difference in pricing among processed food Industries due to difference in pricing policies.

1.11 Processed Food Industry is having competitiveness in terms of **transportation availability**. There is significant difference in availability of transportation among processed food Industries due to
difference in transportation cost, difference in cold storage facility and scale of industry.

1.12 During transportation Processed Food Industry enjoys competitiveness in terms of security of goods. Further, there is significant difference in security of goods among processed food Industries due to scale of industry and technology differences.

1.13 Loading and unloading services are manifesting itself as strength of Processed Food Industry. However, there is significant difference among processed food Industries due to significant difference in transportation availability and transportation cost.

1.14 Processed Food Industry is having comparative advantage in terms of storage facility. There is significant difference among processed food Industries due difference in scale of industry.

1.15 Processed Food Industry is having comparative advantage in terms of Packaging attractiveness and preservability. There is no significant difference among processed food Industries as packaging technology used by all of them is almost same.

1.16 Processed Food Industry is having competitiveness in terms of handling and storage quality of Packaging. However, there is significant difference among processed food Industries due to significant difference in Packaging cost and nature of goods.

2. Weaknesses and bottlenecks those are retarding the industry

2.1 The study points out the seasonal availability of raw material as a weakness in Processed Food Industry. Further, there is significant difference among Processed Food Industries due to difference in storage facility according to the scale of Industry.

2.2 Processed Food Industry is facing main obstacles in terms of labour Productivity as its mean value is less than three and weighted average of less than 0.20. Literature also found that the same as there is a significant difference in productivity of Labour among processed food Industries due to difference in lack of fringe benefits, trained personal, lack of modern technology and scale of the industry.
particularly in Processed Fruit & vegetables, dairy products and bakery Industry (Mathur, 2000). Processed Food Industry is also not having competitiveness in terms of labour turnover due to unhealthy working conditions and social bonding of the labour thus leading to high turnover. Problem in terms of labour productivity and labour turnover is also supported by Singh (2013).

2.3 Skilled labour cost has comes out as a weakness of Processed Food Industry and there is significant difference in skilled labour cost among processed food Industries. The small players unable to afford training to their employees to develop appropriate skill therefore, they have low competitiveness on this aspect.

2.4 Labour demand is affecting the competitiveness of Processed Food Industry and there is significant difference in labour demands among processed food Industries due to difference in scale of Industries.

2.5 Labour union is affecting the production of Processed Food Industry and there is no significant difference in Labour union among processed food Industries due to labour intensive nature of Indian economy.

2.6 Trained personal are not easily available in the Processed Food Industry. There is significant difference in availability of trained personal among processed food Industries due to differences in labour productivity and skilled labour cost.

2.7 Processed Food Industry is not having comparative advantage in terms of power availability. Further, there is significant difference among processed food Industries due to scale of Industry and government policies towards the industry and it is adversely affecting them all. Power is a big problem of Processed Food Industry which is also proved by Singh (1999).

2.8 Low quality of power is retarding the Processed Food Industry due to frequent cuts and there is no significant difference in quality of power among processed food Industries.

2.9 Power cost is manifesting itself as a weakness of Processed Food Industry and there is significant difference in power cost among processed food Industries due to power losses.
2.10 Processed Food Industry is not having any comparative advantage in terms of *pricing flexibility*. There is a significant difference in price flexibility among processed food Industries due to price competitiveness and difference in pricing policies. There is not much competition in this segment as there are few players in the market therefore; competitiveness is low. Processed Food Industry is facing problem of price flexibility as supported by Kolhapure (2015).

2.11 Processed Food Industry is losing competitiveness in terms of *transportation cost* and there is significant difference among processed food Industries due to significant difference in availability of transportation. Due to poor network of roads and poor quality of construction, traffic load is heavy, further encroachment of road not following traffic rules lesser availability of parking facilities, no separate lane for transportation vehicles add to the logistic cost and make the industry looses competitiveness in the transportation cost.

2.12 *Due to Spoilage* Processed Food Industry is losing competitiveness. There is high spoilage due to lack of transportation infrastructure and unprofessional manpower in this field. Further, there is significant difference among processed food Industries due to difference in availability of transportation and nature of goods. Majumdar (2013) also analysed that around 20 to 25% food stock is lost due to spoilage.

2.13 Processed Food Industry is not having advantage in terms of *re-usage and eco friendly quality of package* due to non availability of modern technology in packaging. There is significant difference in among processed food Industries due to difference in scale of industry.

2.14 *High packaging cost* is a drawback of Processed Food Industry and there is significant difference in packaging cost among processed food Industries due to difference in its handling, storage and reuse capacity.
3. Local and global opportunities that can move industry on the place that it’s deserves.

3.1 Media can play crucial role and generates demand/opportunity for Processed Food Industry having mean value more than three. There is significant difference among processed food Industries due to difference in media availability and media promotional changes.

3.2 Media promotional changes and organized retail food are providing an opportunity to Processed Food Industry in Haryana. There is significant difference in among processed food Industries due to difference of technology and scale of industry.

3.3 The study explores that the promotional factors can creates an opportunity for the Processed Food Industry as they are having mean value more than three. Further, there is significant difference among Processed Food Industries due to difference in technology and scale of industry.

3.4 Rate of interest is creating prospect for Processed Food Industry and there is no significant difference in terms of rate of interest among processed food Industries as there is no difference in government policy for Processed Food Industry.

3.5 Sound marketing information system can create an opportunity for the Processed Food Industry having mean value more than three. Further, there is significant difference among processed food Industries due to scale of industry.

3.6 Information accuracy is also having mean value more than three and creating an opportunity for Processed Food Industry and there is no significant difference among processed food Industries as accuracy provides same opportunity for the Processed Food Industry.

3.7 Processed Food Industry is having opportunity in terms of adaptability of food technology, relationship with distributor and
relationship with customer. Further, there is significant difference among processed food Industries due to technology differences and scale of industry.

3.8 It is concluded that market information system has comes out as prospect for the Processed Food Industry having mean value more than three. Further, there is significant difference among different types of Industries due to technology differences. Results also supported by Navyashree (2016) that information and communication technology (ICT) has the potential to make significant impact on many Industries in an economy.

3.9 Ample fertile land and favorable agro climatic conditions having mean value more than three generate opportunities for Processed Food Industry. Further, there is significant difference among processed food Industries due to differences in nature of raw material required by the different Industries. Results also supported by Naik (1993), that diverse agro climatic condition prevalent in the country are providing as opportunity to the Processed Food Industry.

3.10 Small packaging through advance packaging technology will provide opportunity for Processed Food Industry with mean value greater than three. Further, there is significant difference among processed food Industries due to technology differences and scale of industry. Goyal (2006) also found that demand can be generated for processed food products through new packing technology.

3.11 Processed Food Industry is having opportunity in terms of improvement of hygiene and quality levels. There is significant difference in terms of Hygiene and Quality Levels among processed food Industries due to technology differences.
4. Threats that industry may face during achievement of its sustainable growth.

4.1 Processed Food Industry are not having sufficient media, sales personal and advertising agency, hence they are facing problem in terms of these factors. There is significant difference among processed food Industries due to difference of technology and scale of industry. Kolhapure (2015) also supports the view that non availability of proper media is retarding the Processed Food Industry.

4.2 Non availability of fund for promotion of the product is creating threat for the Processed Food Industry in Haryana. There is significant difference among processed food Industries due to difference in scale of Industries.

4.3 Processed Food Industry is facing problems in terms of non availability of long term capital, short term capital and financing complexity. However, there is significant difference among processed food Industries due to difference in scale of Industries and requirements of fund.

4.4 Fund arranging charges, formalities for financing and time taken for financing are creating challenge for Processed Food Industry. There is no significant difference among processed food Industries as financing is a overall problem of Processed Food Industry.

4.5 Requirement of reference/ security for financing is creating problem for the Processed Food Industry. However, there is significant difference among processed food Industries due to difference in scale of Industries.

4.7 Quality certificates, lack of awareness among entrepreneur, technical expertise, efficient packaging technology and ultra modern machineries providing challenges to the Processed Food Industry. There is significant difference among processed food Industries due
to scale of industry, government policies and technology differences, Ramkali (1999) also suggested that to compete in the world market, Indian manufacturers must adopt appropriate technologies to meet product quality requirement.

4.8 Lack of transparency in distribution, fluctuation of raw material prices, lack of periodic data and distortion of prices by middleman having mean value less than three creates threat to the Processed Food Industry. There is significant difference among processed food Industries due to scale of industry, due to seasonal availability of raw material, storage facility and difference in distribution policies of Industries. Goyal (2010) found that food shortage was due to poor distribution and inefficient channels of distribution.

5. Areas where Industry enjoys competitiveness in the changing scenario

5.1 The overall result shows that the Processed Food Industry have competitiveness and enjoying strength in terms of raw material having weighted average greater than 0.20 in scale wise and industry wise due to high production of raw materials and easy availability of raw material which is also supported by Dev (2004). However, overall analysis showed seasonal availability of raw material as a weakness of the Processed Food Industry.

5.2 Processed Food Industry is losing competitiveness in terms of labour productivity and labour turnover due to weighted average being less than 0.20. There is a significant difference among various types of Processed Food Industries due to difference in scale of Industries and technology. India is having advantage of physical resources i.e labour availability and cost, but facing problem in terms of labour productivity and labour turnover as is supported by Singh (2013).

5.3 The study examined that Power factor is having no competitiveness and comes out a weakness of the Processed Food Industry having weighted average being less than 0.20. However, there is a significant difference among the various types of Industries due to
difference in the scale of industry. Power in India is costly due to large scale power loss (because of theft) and its quality effected due to frequent cuts. Power is a big problem of Processed Food Industry which is also proved by Singh (1999).

5.4 The study exhibits that the Processed Food Industry is enjoying competitiveness in term **pricing policy** having mean value greater than 3 and weighted average more than 0.20. Further, there is a significant difference among the various types of Processed Food Industry due to difference in scale of industry.

5.5 The study found that the Processed Food Industry is having competitiveness in terms of transportation as a strength having mean value greater than 3 and weighted average more than 0.20. However, there is significant difference among Processed Food Industries due to technology and scale differences. Sukumar (2003) findings also availability of transportation as strength of Processed Food Industry, however Majumdar (2013) analysed that around 20 to 25% food stock is lost due to spoilage.

5.6 The study examined that the Processed Food Industry is enjoying competitiveness in terms of packaging as a strength having mean value more than 3 and weighted average more than 0.20. However, there is a significant difference among Processed Food Industries due scale and technology differences. Shewflet (1987) analysed that advance packaging technology through attractiveness and preservation providing comparative advantage to Processed Food Industry.

5.7 Processed Food Industry is not cost competitive due to high skilled labour cost, power cost, transportation cost and packaging cost. Through regression it has been analysed that in the Processed Food Industry, finance, labour, packaging, power and raw material have significant effect on cost competitiveness. Further, in small and medium scale industry, technology and transportation also have significant effect on cost competitiveness. Transportation in Processed fruit and vegetable Industry, Bakery industry, Pickle and chutney Industry is having significant effect on cost competitiveness.
Pricing policies in dairy industry and technology in small scale bakery industry are having negative correlation with cost competitiveness. On the basis of these factors, Processed Food Industry can enhance cost competitiveness.

5.8 Finally, the present study observed finance as a major problem for the Processed Food Industry having mean value less than three. There is significant difference among different types of Processed Food Industries due to difference in scale of Industry. Majumdar (2013) results also indicate that Food processing sector is badly affected by lack of funding.

5.9 Processed Food Industry is not competitive in terms of technology due to non availability of efficient packaging technology and lack of hygiene and quality levels in processed food. Work on research and development in the industry to develop new required technology

The study points out that in Processed Food Industry, there is competitiveness in terms of pricing policies (WA=0.235), raw material (WA=0.233), Transportation (WA=0.226) and Packaging competitiveness (WA=0.225). On the other hand, Processed Food Industry is uncompetitive in overall cost, finance, labour, power and technology. But there is cost competitiveness in bakery and pickle & chutney industry. Similarly, the rice milling industry has labour competitiveness.

The close perusal of the overall result of the study shows that the Processed Food Industry is near to the competitiveness having weighted average of 0.197. However, the Processed Food Industry has comparative advantages in terms of cost, raw material, price, packaging and transportation as strength & opportunities, which ultimately make it competitive. To overcome its weakness and threats, it has to adequately implement of research recommendations and government policies.
Section –II
Recommendations

To make Processed Food Industry more competitive, the findings of the study can be successfully utilized. For enhancing competitiveness the following suggestions may take into consideration:-

1. Processed Food Industry has an urgent need of modernization and technical changes to make it competitive in global environment. This is required at every stage of value chain from growing quality output to harvesting, grading to storage and logistics, processing to packaging and marketing. Collaborations, joint venture, attracting foreign direct investment, fiscal incentives etc. are various ways to tap this potential. Our cultural diversity can add richness in developing product portfolio besides creating inclusive development by linking the people from even remote areas.

2. There is urgent need for training and retaining the labour for skilled job profile to strengthen the Processed Food Industry. As on date, the labour productivity is low and turnover is high in the industry. Although Government is making policy framework to improve skill for achieving make in India a success but it need specific efforts to develop skill required for enhancing the competitiveness of the industry.

3. Ministry of Food Processing Industry needs to invest in research and development programs to develop new products, new technology and reduce per unit cost. New institutions can play important role if more push is given to them to develop the required methods and technologies.

4. There should be a policy to provide simple, trouble free and unconditional finance to the unit on the basis of performance. India is having one of the highest costs of finance besides the bottlenecks in getting it. More professionalism and investor friendly attitude need to be inculcated for getting the desired results.
5. Government should develop infrastructure facilities like road, transportation etc. for the improvement of competitiveness of the Industry. Presently, India is having one of the highest logistics cost. Dedicated corridors are required for the movement of raw material, components and finished goods. Cluster development and linking them with the source of material and markets can give leap frog advantage to the industry.

6. Cost and quality of power should be brought equal to international level so that Industry can compete with the global market. This requires many fold change in systems and methods for establishing efficiency and economies of scale. Time is not far to achieve all this. The cost of renewal energy will make a revolution in this sphere.

7. There is a need of research work in packaging to increase the shelf life of processed food. More institutes of package design that evolve environment friendly materials and system will play an important role in time to come.

SUGGESTIONS FOR FUTURE RESEARCH

Although a sincere effort has been made to do a comprehensive study but due to certain limitations while conducting the study, there is further scope of research in this area:

1. This study is limited to Haryana region only, further research may be undertaken with large sample and more representative sample covering entire India.

2. As the present study is related to only five Processed Food Industries, further more than five Processed Food Industries can be taken and in-depth study of the competitiveness can be conducted.

3. A comparative study of competitiveness of Processed Food Industries from different countries may be conducted for further research.