5.1 Introduction

The food processing sector is critical to India’s development, for it establishes a vital linkage and synergy between the two pillars of the economy—Industry and Agriculture. India is the world’s second largest producer of food and holds the potential to acquire the numero uno status with sustained efforts. The enormous growth potential of this sector can be understood from the fact that food production in the country is expected to double in the next 10 years, while the consumption of value-added food products will also correspondingly grow. The growth of this industry will bring immense benefits to the economy, raising agricultural yields, enhancing productivity, creating employment and raising life-standards of a large number of people across the country, especially those in rural areas.

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. A recent study has revealed that there is tremendous potential in India to build a profitable business in the sector. The industry has started producing many new items like ready-to-eat food, beverages, processed and frozen fruit and vegetable products, IQF products, etc. The Indian consumer is being fast introduced to newer high quality food products made by using the latest state-of-the-art technology that is also giving the industry a competitive edge.
5.2 Review of Objectives of the Study:

Objective 01: “To study consumption pattern of processed fruits, vegetables and spice products”

Analysis of statement 20 of the questionnaire, ‘In the coming years processed fruits, vegetables and spice products are going to be popular product categories’, indicates that 62% of the respondents agree with the statement. Analysis of statement 21, ‘It is very interesting to use these products’, depicts that 62% respondents agree with the statement.

The analysis of statement 22, ‘It evokes a feeling of convenience and confidence among its users’, indicates 49% respondents agree with the statement. The analysis of statement 23, ‘It is a very special product category and has some unique feelings associated with it’, reveals that 35% respondents think it is a unique product category. This means the industry need to promote the products intensively and there is lot of scope available for branding efforts to be carried out on the part of manufacturers and marketers.

Analysis of statement 24, ‘It is fun to buy processed food products’, shows 60% of the respondents agree with the statement. So consumers enjoy the purchase experience of these products. This is a positive indication for consumption of fruits, vegetables and spice products.

The analysis of statement 25, ‘It is one product that I would definitely consider for buying’, reveals 76% of the respondents surveyed agree with the statement. The intention to buy processed fruits, vegetables and spice products is high as indicated by the respondents. This leads to make conclusions that the consumption of these products is set to increase in the coming years.

The analysis of statement 26, ‘I would like to buy ready to use processed fruits, vegetables and spice products’, is a similar type of statement to statement no. 25, and it intends to measure ‘purchase intention’ of the respondents. The analysis indicates that
78% housewives agree on they would like to buy these products. This together with the level of agreement in the statement 25 lets to conclude that in future the consumption pattern of processed fruits, vegetables and spice products may show a positive outlook.

The analysis of statement 27, ‘The family consumes the processed fruits, vegetables and spice products regularly’, indicates 64% respondents agree with the statement. This means 64% of the respondents are already using these products on regular basis. Analysis of ‘conation’ shows even more respondents agreeing for buying of these products in future.

So, finally in conclusion of “To study consumption pattern of processed fruits, vegetables and spice products”, it could be observed that future is set to rise for these products. This could also be supported on the basis of secondary data presented in chapter 01 of this study.

Objective 02: “To study consumer expectations from processed fruits, vegetables and spice products”.

The analysis of statement 07, ‘I buy processed fruits, vegetables and spice products because it is nutritious and good for health’, shows 62% of the respondents agree with the statement. This leads to conclude that ‘nutrition content and goodness for health’ is an important consumer expectation from processed food products.

The analysis of statement 09, ‘Quality is the most important criteria for buying processed fruits, vegetables and spice products’, reveals 78% respondents think quality is an important parameter for buying these products. The manufacturers and marketers of these products need to keep in mind that ‘quality’ of processed fruits, vegetables and spice food products is one of the expectations of consumers.

The statement 14, ‘The processed food products we consume are of high level of quality’, tests the ‘quality perception’ for these products. In the analysis, it is found that 60%
respondents agree on the processed food products we consume are of high level of quality.

The analysis of statement 10, ‘Price is most important criteria for buying processed fruits, vegetables and spice products’, indicates that 60% respondents agree with the statement. This suggests affordability of food products is an important consumer expectation.

The statement 15, ‘The products are worth the price they command’, tests the ‘price perception’ for these products. The analysis shows 36% of the respondents agree with the statement. This indicates negative price perception. It suggests that these processed food products are priced higher. Again, it substantiates the issue of affordable prices that is explored in the question 10.

The analysis of statement 16, ‘Processed fruits, vegetables and spice products often cost more than they are worth’ indicates 74% of the respondents agree with the statement. This tests the ‘value perception’ for these products. It indicates negative value perception. Respondents believe cost is more than the products’ worth. Value is explained as ratio of ‘benefits derived to price of the product’. The outcome of this analysis corroborates the results derived from the analysis of statement 10 and statement 15. Hence, manufacturers and marketers need to correctly understand the significance or sensitiveness of issues related to pricing of processed fruits, vegetables and spice products.

The analysis of statement 11, ‘Brand name is most important criteria for buying processed fruits, vegetables and spice products’, suggests 75% of the respondents show agreement on importance of brand name while buying processed food products. So efforts towards creation of brand are worth-while on the part of sellers, because housewives give due recognition and importance to brand names, vis-à-vis mass marketed products.

The analysis of statement 12, ‘Availability is most important criteria for buying processed fruits, vegetables and spice products’, indicates 67% of the respondents believe
availability is an important criterion for buying these products. The implication for manufacturers and marketers is that distribution is important criteria for selling processed food products. They will have to make available these products to the door-steps of the consumers. Hence availability forms an important consumer expectation.

Finally, in conclusions and suggestions for the objective of studying consumer expectations from processed fruits, vegetables and spice products, it is observed that consumers expect the processed fruits, vegetables and spice products to be nutritious and good for health, high in quality, command affordable prices, should be branded products and need to be easily available.

**Objective 03: “To study legislative requirements for manufacturing and marketing processed fruits, vegetables and spice products.”**

The researcher intended to study this objective in the light of secondary data and literature available. A comprehensive review of legislative and policy related requirements for manufacturing and marketing processed fruits, vegetables and spices products is presented in Chapter 0- as topic 4.6.

The volume and range of food law enforcement in the field of purity and quality control has grown dramatically in recent times. Only those able to recall the subject from upwards of half a century ago can really appreciate the changes. Compositional control now appears as more of a closely knit field of its own, keeping pace with the advances of food processing, new methods and raw materials. It has its problems but enforcement agencies appear well able to cope with them, e.g. excess water content, fat content, the application of compositional standards to new products, but the most difficult of all areas is that of securing and maintaining acceptable standards of food hygiene. This is one of the most important duties of environmental health officers, with a considerable impact on health and public concern.
Objective 04: “To study factors influencing consumption of processed fruits, vegetables and spice products.”

The analysis of statement 04, ‘I buy processed fruits, vegetables and spice products after having detailed information about the products’, reveals 77% of the respondents seek information before taking the purchase decision about the products. This means availability of enough information for making the buyer purchase decision is an important factor that marketers of processed food products need to address.

In the previous analysis of statement 07, the importance of ‘nutrition content and goodness for health’ of processed food products is revealed. So, sellers need to include detailed information about nutrition content of the processed food on the package label.

The analysis of statement 05, ‘I buy processed fruits, vegetables and spice products because it saves time’, indicates that 71% of the respondents agree with the statement. This means the issue of ‘convenience’ is an important factor for housewives, as use of processed food leads to savings in time in preparation of meals.

The analysis of statement 06, ‘I buy processed fruits, vegetables and spice products because it tastes great’, shows that 73% of the respondents agree with the statement. This means ‘taste’ of these processed food products is considered as an important parameter that influences the consumption. Therefore, manufacturers and marketers need to understand and address the issues of taste and palatability for selling processed food products.

The analysis of statement 08, ‘I buy processed fruits, vegetables and spice products because it gives change’, indicates 57% respondents agree with the statement. This means the ‘change’ issue is not a significant factor that influences the consumption of processed fruits, vegetables and spice products.

The previous analysis of statement 09 on ‘quality’, statement 10 on ‘price’, statement 11 on ‘brand name’ and statement 12 on ‘availability’ indicate that sellers need to address
the issues / factors related to these and should provide detailed information to the consumer in order to facilitate the buying process.

The analysis of statement 17, ‘I purchase processed fruits, vegetables and spices because of the advertising and promotions of the products’, shows 45% of respondents agree with the statement. Hence, it could be concluded that when housewives are the purchase decision makers (in fact, this study shows that in 77% of the families housewives decide about purchasing of processed fruits, vegetables and spice products and brands), they do not get carried away simply by the advertising and promotions of the products.

The analysis of statement 18, ‘The purchase of processed fruits, vegetables and spice products is influenced by personal experience’, indicates that 69% of the respondents agree with the statement. This means ‘personal experience’ is a driving factor for purchase of these products. Personal experience of products and brands lead to word-of-mouth advertisements. Therefore, it could be suggested that for food products’ purchases housewives rely more on personal experiences and word-of-mouth rather than sponsored promotions and advertisements.

The analysis of statement 19, ‘I buy processed fruits, vegetables and spice products because children like it’, indicates 68% respondents agree with the statement. This means, even though, in 77% of the families housewives decide about purchasing of processed fruits, vegetables and spice products and brands; the buying is influenced by children’s likings. Hence, it could be concluded that children play a significant role in the purchase process of these products. Therefore, based on this study, it is suggested manufacturers and marketers need to understand the significance of kids as purchase influencers and, advertisements and promotions targeted to children may give success in selling of their products and brands.

Finally, towards conclusions and suggestions for objective 04, ‘To study factors influencing consumption of processed fruits, vegetables and spice products’, it could be summarized that availability of detailed product information, convenience in meal preparation, taste of processed food products, personal experience of these products and
children as purchase influencers are the important factors which influence the consumption of processed fruits, vegetables and spice products.

**Objective 05: “To study consumer attitude towards processed fruits, vegetables and spice products.”**

A simple representation of the Tricomponent Attitude Model is given in Annexure 01. This model consists of three components:

1. The Cognitive component
2. The Affective component
3. The Conative component

1. **The Cognitive component:** The first component of the Tricomponent Attitude Model consists of a person’s cognitions, that is, the knowledge and perceptions that are acquired by a combination of direct experience with the attitude-object and related information from various sources. This knowledge and resulting perceptions commonly take the form of beliefs; that is, the consumer believes that the attitude-object possesses various attributes and that specific behavior will lead to specific outcomes.

   Statements from no. 01 to 20 are framed to measure the cognition component of the Tricomponent Attitude Model. All the questions that measure the cognition component of consumers’ attitude are already analyzed in our previous analysis of objectives. We already have drawn conclusions and suggestions for the statements related to cognition component of Tricomponent Attitude Model.

2. **The Affective component:** A consumer’s emotions or feelings about processed fruits, vegetables and spice products constitute the affective component of an attitude. These emotions and feelings are frequently treated by consumer researchers as primary evaluative in nature; that is, they capture an individual’s direct or global assessment of the attitude-object (i.e. the extent to which the individual rates the attitude-object as “favorable” or “unfavorable”, “good” or “bad”.)
Affect-laden experiences also manifest themselves as emotionally charged states (e.g. happiness, sadness, shame, disgust, anger, distress, guilt, surprise). Research indicates that such emotional states may enhance or amplify positive or negative experiences, and that later, recollections of such experiences may impact what comes to mind and how the individual acts.

Statements from no. 21 to 24 are framed to measure the affect (emotions / feelings) component of the Tri-component Attitude Model.

The analysis of statement 21, ‘It is very interesting to use these products’, indicates 62% respondents agree with the statement. This is favorable evaluation of the attitude object, i.e. processed fruits, vegetables and spice products.

The analysis of statement 22, ‘It evokes a feeling of convenience and confidence among its users’, shows 49% of the respondents agree with the statement. Intensive advertising and brand building exercises for these products category will enhance attachment for its users.

The analysis of statement 23, ‘It is a very special product category and has some unique feelings associated with it’, reveals 35% respondents agree with the statement. This means respondents are not much in favor of the ‘uniqueness’ feelings of the products.

The analysis of statement 24, ‘It is fun to buy processed food products’, shows 60% of the respondents agree with the statement. This means housewives show favorable disposition for the product category and they feel purchasing experience as fun-filled.

Finally, in analysis of ‘affect’ component of Tricomponent Attitude Model, it could be concluded that housewives find the experience of buying processed fruits, vegetables and spice products enjoyable and they also find interesting to use these products. It is suggested that manufacturers and marketers of processed fruits,
vegetables and spice products focus on ‘fun to buy’ and ‘interesting to use’ related emotions to promote these products.

3. **The Conative component**: Conation, the final component of the Tricomponent Attitude Model, is concerned with the likelihood or tendency that an individual will undertake a specific action or behave in a particular way with regard to the attitude-object. According to some interpretations, the conative component may include the actual behavior itself.

In marketing and consumer research, the conative component is frequently treated as an expression of the consumer’s intention to buy. Buyer intention scales are employed to assess the likelihood of a consumer purchasing a product or behaving in a certain way.

Statements no. 25, 26 and 27 measure the Conative component (likelihood or tendency that an individual will undertake a specific action or behave in a particular way with regard to the attitude-object / intention to buy) of the Tri-component Attitude Model.

The analysis of statement 25, ‘It is one product that I would definitely consider for buying’, indicates 76% respondents agree with the statement. This means the likelihood of a respondent’s undertaking buying action with regard to the attitude-object is pretty good.

The statement 26, ‘I would like to buy ready to use processed fruits, vegetables and spice products’, also tests the respondents’ intention to buy. The result of analysis shows 78% housewives agree that they would like to buy these products.

Finally, after using these two statements as buyer intention scales, it could be concluded and suggested that, the likelihood of a consumer’s purchasing a processed fruits, vegetables or spices product is high. Besides, the analysis of statement 27, ‘The
family consumes the processed fruits, vegetables and spice products regularly’, indicates 64% of the respondents are already consumers of these products on regular basis.

5.3 Results of Factor Analysis

The seven factors - depending upon the associated statements and inferences are named as given in the following table:

Table 5.3.1
Factors and Associated Names

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Factor</th>
<th>Name on the basis of Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Factor 1</td>
<td>‘Distinctiveness’</td>
</tr>
<tr>
<td>2.</td>
<td>Factor 2</td>
<td>‘customer expectations’</td>
</tr>
<tr>
<td>3.</td>
<td>Factor 3</td>
<td>‘purchase intent (conation)’</td>
</tr>
<tr>
<td>4.</td>
<td>Factor 4</td>
<td>‘awareness (relatedness)’</td>
</tr>
<tr>
<td>5.</td>
<td>Factor 5</td>
<td>‘buying criteria’</td>
</tr>
<tr>
<td>6.</td>
<td>Factor 6</td>
<td>‘purchase influences’</td>
</tr>
<tr>
<td>7.</td>
<td>Factor 7</td>
<td>‘perceived value and availability’</td>
</tr>
</tbody>
</table>
5.4 Results of Analysis of Variance

The results of one-way ANOVA are summarized in the Table 5.4.1 below.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Variables</th>
<th>Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Variables ‘Conation’ by ‘Income’</td>
<td>Null hypothesis is rejected and concluded that income has a significant impact on consumer attitude towards processed fruits, vegetables and spice products.</td>
</tr>
<tr>
<td>02.</td>
<td>Variables ‘Conation’ by ‘City’</td>
<td>Null hypothesis (city has no impact on consumer attitude, i.e. conation) is rejected and it is concluded that the particular city in Gujarat has a significant impact on consumer attitude towards processed fruits, vegetables and spice products or consumers of different cities seem to have different attitude towards processed fruits, vegetables and spice products.</td>
</tr>
<tr>
<td>03.</td>
<td>Variables ‘Conation’ by ‘SEC’</td>
<td>We fail to reject the null hypothesis and it is inferred that the SEC category has no significant impact on consumer attitude towards processed fruits, vegetables and spice products.</td>
</tr>
</tbody>
</table>
### 5.5 Results of Hypothesis Tests

The summary of hypothesis tests have been presented in the table 5.5.1 and 5.5.2 below.

#### Table 5.5.1
Summary of Hypothesis Tests ('t' test)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Hypothesis</th>
<th>Results of Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Processed fruits, vegetables and spice products are picking up more popularity.</td>
<td>Null hypothesis is rejected and it is concluded that processed fruits, vegetables and spice products are picking up more popularity.</td>
</tr>
<tr>
<td>02.</td>
<td>Women prefer processed fruits, vegetables and spice products in the family.</td>
<td>Null hypothesis can't be accepted. It is concluded that women prefer processed fruits, vegetables and spice products in the family.</td>
</tr>
<tr>
<td>03.</td>
<td>Women take the purchase decision for buying the processed food products.</td>
<td>Null hypothesis is rejected. It is concluded that women take the purchase decision for buying the processed food products.</td>
</tr>
<tr>
<td>04.</td>
<td>Processed food products are considered less healthy.</td>
<td>Null hypothesis can not be accepted. It is concluded that the respondents do not consider the processed food products less healthy.</td>
</tr>
<tr>
<td>Sr. No.</td>
<td>Hypothesis</td>
<td>Results of Analysis</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>05.</td>
<td>Children influence the purchasing of processed fruits, vegetables and spice food products positively.</td>
<td>- Pearson's Chi-square test clearly states that there exists a significant interrelationship between the dependent and independent variables. Lambda has small value, and therefore we conclude that there is a weak relationship between the two variables, but that is statistically significant.</td>
</tr>
<tr>
<td>06.</td>
<td>Young people prefer processed food products and purchase more often.</td>
<td>- As the age group rises in the young people category, the consumption of these processed food products increases.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- It is concluded that the age of the respondent plays an important role in the purchasing (consumption) of the processed fruits, vegetables and spice products regularly.</td>
</tr>
<tr>
<td>07.</td>
<td>Elderly people prefer fresh food products over processed food products.</td>
<td>- In the elderly people category, as the age group rises the consumption of processed food decreases.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- At 95% confidence level, there is no relationship between the variables.</td>
</tr>
<tr>
<td>08.</td>
<td>Working woman families consume processed fruits, vegetables and spice products more often.</td>
<td>- It is concluded that occupational background of the housewife does not play a vital role in the family's consumption of processed fruits, vegetables and spice products.</td>
</tr>
<tr>
<td>09.</td>
<td>Higher income families buy processed food products more often than low income families.</td>
<td>- The Chi-square test is showing a significant association between the two variables at 95% confidence level.</td>
</tr>
<tr>
<td>10.</td>
<td>Higher SEC families consume processed food products more often than lower SEC families.</td>
<td>- It is concluded that SEC background of the family does not play a vital role in the determination of the family's consumption of the processed fruits, vegetables and spice products regularly.</td>
</tr>
</tbody>
</table>
5.6 Conclusion:

Despite policy initiatives, growth potential and significant achievements, there are several disturbing trends as suggested below:

- In India, the value addition to food fortification is only 7% compared to as much as 23% in China, 45% in Philippines and 188% in the UK. Further, there are few large or medium sized companies in the organized sector against many small ones. The small-scale and unorganized sectors account for 75% of the total industry.

- Despite its importance to India’s well-being, the food industry has in the past been neglected. Food is usually the first industry to develop and has importance in most economies. In India, it is still relatively small and not regarded attractive.

- External liberalization opens up new export avenues and seeks to integrate the economy with global markets. But it also poses threats of stiffer competition under a new world trade order with WTO agreements relaxing quantitative restrictions and non-tariff barriers on importing countries. This exposes the Indian farmer to world market forces. Strategies to convert the potential disadvantage, on account of the new import regime, into advantage are needed. The inherent strength of high raw material production and large domestic market base has to be buttressed and energized by evolving the right international-level infrastructure and growing suitable raw material. This, coupled with operating processing units at optimum capacity levels as per economies of scale, would enable achieving a competitive edge over imported products. The food sector will be confronted by challenges of trade related Intellectual Property Rights, comprising patent laws, copyrights, trade links, etc.

- Advances in bio-technology have enabled production of Genetically Modified (GM) foods. These have already appeared in some countries. GM foods need be critically examined on their good and adverse impacts on human health.

- India is the second largest producer of food in the world but its share in world’s exports is very low despite its inherent strength in spices.

1 Many details in this section are taken from: A. K. Goel, “The Indian Food Processing Industry”, SPICE (National Institute of Agricultural Extension Management (MANAGE), Hyderabad, Volume 1, No. 3, (January 2003).
• 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 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.

• India is viewed as an unpredictable and unreliable source of food and agro products despite its world class production measures for ensuring supply to the international markets and increased production and quality of food products specific to exports.

• Food processing enterprises in organized and unorganized sectors are in private hands. Though there has been certain growth in the food industry because of domestic demand, the demand itself remained low due to policies pursued earlier. Majority of the food units are in primary processing and since production base of secondary and tertiary processed foods is low, there is lower value addition.

• Commercial R&D activities in the food industry have remained confined to only a few areas. R&D activities have scarcely emerged from the laboratory to be extensively adopted on the field.

• Indian brands have yet to acquire an image in the international markets because of poor global marketing. Poor awareness of most of Indian Agri produce, seed constraints and India’s image and identity of a low quality, unreachable producer of food items ensure that Indian food items are not the most preferred ones.

• 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, 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.

• Branded food items attract higher sales tax and excise duty as against the unbranded ones. It is reasonable to expect that any meaningful investment in this sector will necessitate branding of products. It is noteworthy that no country treats branded food differently for levying duties. The exemption to unbranded and unorganized sector from excise and sales tax leads to low quality consciousness among manufacturers and consumers.

• The sector is capital starved. Investments in infrastructure and research have been far from adequate.

• The sector has been characterized 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.

• Multiple and complicated tax regimes have rendered the food industry uncompetitive. Regulations on the entry operations of private sector in trade, post-harvest facilities and food processing have restricted private sector investment in the agricultural sector. With the signing of the GATT and the coming up of World Trade Organization, this sector is facing internal and external pressures stemming from policies of economic liberalization.

• The major problem facing the fruit and vegetable chain in India is the large number of intermediaries. There are too many people involved in delivering these products from the farm to dining tables. In other countries, farmers sell their produce to wholesalers who forward it to retailers. But in India there are consolidators, traders, wholesalers, and a number of intermediaries who delay the transit time. This causes a large-scale loss in the process.

• Facilities for post-harvest handling also need to be improved by providing better packing of products and facilities for storage and handling.
• Even today, 75% of the food industry is unorganized. It has thus become imperative that technological assistance and know how be provided to small and medium farmers across the country. Lack of awareness of international requirements and consumer preferences leads to the production of undesirable produce. Information regarding product standards and pesticides has still not percolated to grass root levels. Indian farmers are also unaware of quality developments in other nations across the globe.

• The industry still lacks facilities for biodegradable and eco-friendly packaging of food. The Central Food Technological Research Institute (CFTRI) has developed degradable plastics like starch-based plastic, polymers synthesized by microorganisms, and chemically degradable photodegradable plastics. All of these can be used for packaging processed food products.

• A similar problem which faces India’s packaging industry is that more than 50% of the tinplates used in tins for packaging are not prime sheets, but secondary tinplates. Secondary tinplates are those that have logos or matters printed on their face and are supposed to be disposed of as scrap. According to the guidelines laid down by the Bureau of Indian Standards, sheets used for packaging these products should not have anything printed on their inner surface. Although these sheets are highly hazardous to public health, the BIS (Bureau of Indian Standards) has inexplicably amended its regulations concerning tinplates. Under the amended rules, use of primary tinplates has been made voluntary instead of mandatory.

5.7 Suggestions:

The present scenario has resulted from the lack of cohesive and integrated planning of the industry, keeping in mind specific needs of various regions, their produce and special industries, which could be energized to work at optimum capacity. The policy initiatives so far have gone by the assumption that this industry has high risk and low return and that seasonality of produce dictates the levels of capacity utilization; that any multi-line

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projects will become unviable, for there is paucity of marketing outlets and lack of other infrastructural facilities. These problems cannot be viewed in isolation nor can they be tackled by a single department / ministry.

It is important to adopt a holistic approach in formulating any viable policy for this nascent sector. The planning should be bottom up and not top down, for in India, the initiative has to come from the rural sector constituting 70% of the population. This is where tapping of Panchayat Raj institutions and networking of cottage, small and medium industries can viably provide the primary and secondary processing for take-off by large-scale industries. What is envisaged is an integrated model wherein cottage, small and medium enterprises act as input factors for further development of products by larger enterprises, by creating primary / secondary processing facility centers within a radius of 15 to 25 km from the farm.

These centers will provide appropriate packing techniques for farmers. Other facilities that could be envisaged at these centers include treatment, washing, sorting and grading, packaging and cold storage. Adequate system will be evolved to transport these processed products for use by larger industries as well as for sale in wholesale markets. This process will ensure backward and forward links between farmers, markets (domestic and international) and larger industries. This way, each unit would be viable and independent and at the same time, be linked with higher players in the market. Thus, imbalances, which were a built-in variable, could either be corrected or converted into an advantageous variable. This is possible only if all Panchayat institutions in the country are networked with leading market outlets, including the top players in the industry. Such a synergy cannot evolve in a short time unless the government initiates many Centrally-sponsored direct assistance to Panchayat institutions, including allocations for infrastructure like roads and transport.

This way, the WTO restriction on subsidies could be overcome and within a couple of years the entire gamut of functioning of these industries could be re-oriented. This will also wean away the thinking process of planners to view the food processing industry
only as a means to reduce wastages. This will ensure a proactive industry-oriented approach enabling the industry's growth in a modern, scientific and planned manner. This will increase productivity at minimum costs improving the product's competitiveness. On a larger scale, this will make the economy vibrant and prevent unnecessary migration of population and unplanned urbanization.

The various strategies and initiatives suggested are as follows.

**Creating an Enabling Environment:**

- 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.
- 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.
- 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 proposec 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.
**Intensive and Extensive Awareness:**

- Extensive training need be provided to farmers and cooperatives in post harvest management of agro-produce to encourage creating pre-processing facilities. 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 far away places and to ensure increased value addition, especially for horticultural produce.
- Efforts need to 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.

**Infrastructural Development:**

- 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 need to be made to disseminate market intelligence to enable farmers to fetch higher value for their produce.
- Efforts need to 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 need to be encouraged.
- The interactive mesh between technology, economy, environment and society need to 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 need to be encouraged through recognized institutions having expertise in respective fields.
- Application of bio-technology, remote sensing technology, pre and post harvest technologies, energy saving and environmental protection technologies through National Research System or any other mode need to be encouraged.
Backward Linkage - Raw Material Supply:

- The availability of raw material for processing is one of the crucial issues seriously affecting the health of the processing industry. With the supply of farm produce in India being governed largely by nature, the food processing industry suffers from the inability to plan for consistent, timely availability of quality / desired raw material. The most suitable method in the Indian context appears to be contract farming, which many big corporate have already adopted successfully to the mutual benefit of the supplier of the farm produce and the processing corporate.

- The concept of backward linkage between farmers and industry need to be promoted to encourage and enable farmers to grow products of appropriate quality. This will help the poor farmers as well as marginal and medium farmers fetch appropriate and remunerative return for their produce.

- The existing institutions like local bodies, cooperatives and self-help groups, which have been in operation for over four decades in different contexts, would be utilized to strengthen the backward linkage. This way the skill and expertise acquired by these institutions would be constructively used, while this mechanism would help quickly create the bridge of trust between farmers and processors. This would ensure smooth supply of raw material to the processors and help the farmers (poor, marginal and big) in getting remunerative prices for their products.

- To achieve greater efficiency, the industry needs to adopt the latest technologies that could provide economies of scale and cost effectiveness. Greater use of radiation technology in food processing, which is being used in many countries around the World (which has been permitted in India too), and application of biotechnology would go a long way toward increasing efficiency. The Indian FPI, which is currently dominated by small, mostly unorganized players, needs to be organized. The formation of the Indian Farmers and Industry Alliance (under CII) and the Confederation of Indian Food Trade and Industry (under FICCI) is the first step in this direction.
Forward Linkage - Marketing:

- There is an urgent need to develop forward linkages for fresh and processed food. Presently, there are a large number of intermediaries operating between the farmers / processors and the consumers, resulting in high cost to the consumers and low return to the farmers and processors. The efforts to cut intermediaries need to be made in such a way that the special skill and expertise required to operate the intermediate links in the system like transportation and market distribution are not jeopardized. To achieve this, attempts need to be made to provide appropriate tax incentives and holidays for setting up food processing industries, taking care of expenses on market promotion and ancillary activities.

- Special attention is to be laid towards setting up regulated markets with the primary objective to improve market efficiency and achieve equitable distribution of benefits between producers, traders and consumers. This will be possible by evolving strategies to strengthen regulated market yields and equipping them with grading, cleaning and packaging facilities, along with market information systems.

- Efforts are to be made to develop packaging technologies for individual products to increase their shelf life and improve consumer acceptance.

- Efforts are to be made to harmonize food laws to encourage production of high quality products with minimum intervention from regulatory authorities. The complexity of multiple administering authorities for food processing enterprises is also required to be simplified by developing an integrated and unified system.

- Last but not the least, consumer attitude towards processed foods has to be changed. For instance, even to this day, Indian consumers prefer fresh fruits and vegetables as against processed and frozen products. Industry should drive home the point that processed and frozen foods give greater utility in terms of hygiene, quality, convenience and cost.
5.8 Major Findings and Conclusions

Some of the important findings and conclusions of the research are as follows.

1. 67% of the respondents have said that processed fruits, vegetables and spice products are preferred by the housewife in the family. The data shows that in 16% of the families processed fruits, vegetables and spice products are preferred by children and in 17% of the families, it is preferred by husband.

2. 62% of the respondents agree with the statement that 'in the coming years processed fruits, vegetables and spice products are going to be popular product categories', and 'it is very interesting to use these products'. 60% of the respondents tick 'it is fun to buy processed food products'. So consumers enjoy the purchase experience of these products. 76% of the respondents surveyed agreed that 'it is one product that I would definitely consider for buying'. The intention to buy processed fruits, vegetables and spice products is high as indicated by the respondents. This leads to make conclusions that the consumption of these products is set to increase in the coming years. 64% respondents show that 'the family consumes the processed fruits, vegetables and spice products regularly'.

3. For the objective of studying consumer expectations from processed fruits, vegetables and spice products, it is observed that consumers expect the processed fruits, vegetables and spice products to be nutritious and good for health, high in quality, command affordable prices, should be branded products and need to be easily available.

4. Since the liberalization of economic policies in India several policy measures have been taken with regard to regulation and control, fiscal policy, export and import, taxation, exchange and interest rate control, export promotion, and incentives to high-priority industries. Food processing and agro industries have been accorded high priority with a number of exemptions and incentives. Some of the important policy initiatives so far, policy matters related to fruits and vegetables processing and packaged / convenience foods, recent policy initiatives from the Government of India, Food Safety and Standards Bill 2005, Codex Standards, and the Food Safety and Standards Act 2006, etc. are covered for understanding legislative requirements for manufacturing and marketing processed fruits & vegetables and spice products.
5. It could be summarized that availability of detailed product information, convenience in meal preparation, taste of processed food products, personal experience of these products and children as purchase influencers are the important factors which influence the consumption of processed fruits, vegetables and spice products.

6. In analysis of ‘affect’ component of Tricomponent Attitude Model, it could be concluded that housewives find the experience of buying processed fruits, vegetables and spice products enjoyable and they also find interesting to use these products. It is suggested that manufacturers and marketers of processed fruits, vegetables and spice products focus on ‘fun to buy’ and ‘interesting to use’ related emotions to promote these products. After using buyer intention scales, it could be concluded that, the likelihood of a consumer’s purchasing a processed fruits, vegetables or spices product is high.

7. The seven factors extracted together account for 53.07% of the total variance (information contained in the 24 original variables). The seven factors identified and given names in Factor Analysis are as follows: distinctiveness, customer expectations, conation, awareness, buying criteria, purchase influences, and perceived value & availability.

5.9 Benefits of the Study

The study may be helpful to have a futuristic vision with commitment to achieve it through boldly measure. The research will be helpful in solving various related problems of processed food industry. The research results will assist in more than one way in taking strategic business decisions related to the industry.

This study will be beneficial to the food processing industry, entrepreneurs and investors, professionals working in the industry, academicians and students aspiring to join this industry. Academicians, students and professionals working in this field will come to know present scenario and future challenges to this industry. It will also provide requisite data to the industries.
5.10 Limitations of the Research

Limitations of this research are due to following reasons.

1. The geographical coverage of this research is confined to Gujarat state. A wider coverage might have resulted in increased reliability of the findings.

2. Unwillingness of respondents to provide information and devote required time to fill up response sheets.

3. Some of the responses were partially filled up, and hence all the responses could not be utilized for analysis purpose.

4. The state of Gujarat is a large state and the cities, i.e. Ahmedabad, Vadodara, Surat and Rajkot are located at far distances. The researcher visited all the places personally with the field staff but the responses to the questionnaire could not be supplemented with in-depth interviewing.

5. Sampling error may creep in during the selection of the sample for the research.

6. Problems of fruits & vegetables processing and spice products industry being relatively unexplored, much literature was not available.

5.11 Chapter Summary

Chapter I: An introduction to the subject

This chapter outlines the need and importance of researching such a subject especially in the context of Indian markets. It encompasses topics on overview of Indian food processing industry, financial trends of food processing industry, opportunities in food processing, foreign direct investment in food sector, etc.

Selected bibliography is provided as ‘chapter references’ at the end of each chapter.

Chapter II: Review of Literature

A survey and review of national and international level material was done through various websites on consumer attitude towards processed food products. A review of subject related books, journals and periodicals available in different libraries of reputed institutions was carried out.

This chapter reviews the available literature on the research topic. This review is done to understand the products, their raw materials availability, markets, processing
technologies, and available research carried out world over on similar topics. Various empirical evidences and discussions in the form of published articles in journals, periodicals and books are reviewed. A wide range of theories and knowledge emerge after this review. They range from social, economical and cultural explanation to the hard core marketing explanations.

Chapter III: Research Methodology
Talks about precise methodology used in carrying out this study. In the first part, it explains the objectives of this study. Keeping in mind the objectives of study, research questions were formulated.
This chapter presents the theoretical framework of consumer attitude towards processed food products based on the Tricomponent Attitude Model. The term ‘attitude’ is defined here. This chapter outlines the objectives of this study and research hypothesis. The chapter also gives a broad outline of my proposed methodology and sampling plan to conduct this particular research and the reasons behind selecting such methodology and sampling plan. The chapter gives the detailed work plan.

Chapter IV: Analysis of data and Findings
This chapter exhibits analysis of the collected data using the framework, which was developed in research design and methodology. Collected data were analyzed using SPSS and presented in this chapter.
The chapter includes compilation of primary data and information collected through extensive field work. The data were analyzed using SPSS statistical package, where frequency, percentages, mean, standard deviation, cross-tabulation of data variables, One-way ANOVA, Chi-square test, Lambda, Goodman and Kruskal Tau, Phi, Cramer’s V and Contingency Coefficient etc. were derived depending on the variables and analysis objectives.
Analysis of demographic profile of respondents, analysis of each question included in the questionnaire and hypothesis testing is carried out in this chapter. The inferences and conclusions were drawn from the observations made by analyzing responses from the fieldwork. The tables were made for the analysis and data was also represented
graphically for the ease of interpretations. Some high end statistical tools such as Factor Analysis were also used to analyze the data.

Chapter V: Conclusion and Suggestions

The measure outcomes of this study are presented in chapter V. The findings from the data analysis and suggestions are presented in this chapter. Care has been taken to give details according to the objectives of the research. The overall literature review and analysis of data gives various conclusions.

This chapter highlights the major findings of the study. Each objective of the study is considered separately and the relevant analysis is carried out to make conclusions about each objective.

This chapter summarizes the entire research and makes recommendations for further actions. This chapter presents in details the conclusions that can be drawn based on the findings of the study. This chapter also contains suggestions about consumer attitude towards these products based on the primary data and suggestions for the industry based on the literature review.

This study is hence most contemporary and meets the demand of an emerging business sector in the country. It is hoped that conclusions drawn in this research would become vital inputs for the processed foods industry. It is further wished that this study despite its many flaws, inherent in a research of this magnitude, would lead to further detailed studies, thus enhancing the field of knowledge.

The simple representation of the Tricomponent Attitude Model, the questionnaire and the SEC classification table are provided as annexure in the end.
The Cognitive component: The first component of the Tricomponent Attitude Model consists of a person’s cognitions, that is, the knowledge and perceptions that are acquired by a combination of direct experience with the attitude-object and related information from various sources. This knowledge and resulting perceptions commonly take the form of beliefs; that is, the consumer believes that the attitude-object possesses various attributes and that specific behavior will lead to specific outcomes.

The Affective component: A consumer’s emotions or feelings about processed fruits, vegetables and spice products constitute the affective component of an attitude. These emotions and feelings are frequently treated by consumer researchers as primary evaluative in nature; that is, they capture an individual’s direct or global assessment of the attitude-object (i.e. the extent to which the individual rates the attitude-object as “favorable” or “unfavorable”, “good” or “bad”.)

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Affect-laden experiences also manifest themselves as emotionally charged states (e.g., happiness, sadness, shame, disgust, anger, distress, guilt, surprise). Research indicates that such emotional states may enhance or amplify positive or negative experiences, and that later, recollections of such experiences may impact what comes to mind and how the individual acts.

In addition to utilizing direct or global evaluative measures of an attitude-object, consumer researchers can also use a battery of affective response scales (e.g., that measure feelings and emotions) to construct a picture of consumers' overall feelings about the product.

The Conative component: Conation, the final component of the Tricomponent Attitude Model, is concerned with the likelihood or tendency that an individual will undertake a specific action or behave in a particular way with regard to the attitude-object. According to some interpretations, the conative component may include the actual behavior itself.

In marketing and consumer research, the conative component is frequently treated as an expression of the consumer's intention to buy. Buyer intention scales are employed to assess the likelihood of a consumer purchasing a product or behaving in a certain way.
Good Evening Madam,

I am a student of Ph.D. program, G. H. Patel P.G. Institute of Management, Sardar Patel University, Vallabhbhi Vidyanagar. I am conducting a survey on "Consumer attitude towards processed food products in Gujarat - A study on fruits & vegetables processing and spice products\(^2\)". The data collected is for academic purpose only. Can you please spare some time to answer a few questions? I assure you that all information collected from you will be kept confidential and merged with information collected from others like you.

Kindly tick against the statements using the ranking:
1. Strongly Disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly Agree

1. I am familiar with the products.
   1. Yes ( )
   2. No ( )
   
   **If answer choice is:**
   No; TERMINATE
   Yes; CONTINUE

2. Who prefers processed fruits, vegetables and spice products in the family?
   1. housewife ( ), 2. children ( ), 3. husband ( )

3. Who decides about purchasing of processed fruits, vegetables and spice products and brands?
   1. housewife ( ), 2. children ( ), 3. husband ( )

4. I buy processed fruits, vegetables and spice products after having detailed information about the products.
   1. strongly disagree ( ), 2. disagree ( ), 3. neither agree nor disagree ( ), 4. agree ( ), 5. strongly agree ( )

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\(^2\) Tentative list of products include pickles, chutneys, jams, sauces, condiments, syrups, squashes, fruit pulps, canned fruits and vegetables, concentrated pulps, juices and beverages, dehydrated vegetables, frozen fruits and vegetables; ground spices, curry powders, spice oils and oleoresins.
5. I buy processed fruits, vegetables and spice products because it saves time.
   1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

6. I buy processed fruits, vegetables and spice products because it tastes great.
   1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

7. I buy processed fruits, vegetables and spice products because it is nutritious and good for health.
   1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

8. I buy processed fruits, vegetables and spice products because it gives change.
   1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

9. Quality is most important criteria for buying processed fruits, vegetables and spice products.
   1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

10. Price is most important criteria for buying processed fruits, vegetables and spice products.
    1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

11. Brand name is most important criteria for buying processed fruits, vegetables and spice products.
    1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

12. Availability is most important criteria for buying processed fruits, vegetables and spice products.
    1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

13. Processed fruits, vegetables and spice products are essential in life.
    1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

14. The processed food products we consume are of high level of quality.
    1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

15. The products are worth the price they command.
    1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

16. Processed fruits, vegetables and spice products often cost more than they are worth.
    1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

17. I purchase processed fruits, vegetables and spices because of the advertising and promotions of the products.
    1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

18. The purchase of processed fruits, vegetables and spice products is influenced by personal experience.
    1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()
19. I buy processed fruits, vegetables and spice products because children like it.
   1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

20. In the coming years processed fruits, vegetables and spice products are going to be popular product categories.
   1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

21. It is very interesting to use these products.
   1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

22. It evokes a feeling of convenience and confidence among its users.
   1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

23. It is a very special product category and has some unique feelings associated with it.
   1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

24. It is fun to buy processed food products.
   1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

25. It is one product that I would definitely consider for buying.
   1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

26. I would like to buy ready to use processed fruits, vegetables and spice products.
   1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

27. The family consumes the processed fruits, vegetables and spice products regularly.
   1. strongly disagree (), 2. disagree (), 3. neither agree nor disagree (), 4. agree (), 5. strongly agree ()

**Demographic Profile:**

**Age (in years):**
1. 24 and below ( ) 2. 25-35 ( ) 3. 36-45 ( ) 4. 46-55 ( ) 5. 56 and above ( )

**Monthly income of the family (Rs.):**
1. Below 10,000 ( ) 2. 10,001-20,000 ( ) 3. 20,001-30,000 ( )
4. 30,001-40,000 ( ) 5. 40,001 and above ( )

**Family life stage:**
1. Unmarried ( ) 2. Married and no children ( ) 3. Married and children below 25 years ( ) 4. Married and children above 25 years ( )

**Occupation:**

**Education:**
1. HSC / SSC ( ) 2. Graduate ( ) 3. Post-graduate and above ( ) 4. Professional qualification ( ) 5. If any other:
Personal Data:

1. Name:

2. No. of family members:
   1. One ( ) 2. Two ( ) 3. Three ( ) 4. Four ( ) 5. Five and more ( )

3. No. of children in the family:
   1. No kids ( ) 2. One ( ) 3. Two ( ) 4. Three ( ) 5. Four and more ( )

Thank you very much for sparing your valuable time.

Interviewer’s Name: ......................................................; Date: ........../........./09 Sr. No.: .......
City: ............; Ahmedabad (01), Baroda (02), Surat (03), Rajkot (04) SEC: .........
Annexure 03

SEC Classification Section

1. In market research, we classify Chief Wage Earner (CWE) as the person who contributes the most to the total household expenditure. Now, could you tell me, what is the occupation of the chief wage earner of your household? **IF RETIRED, ASK:** What was his/her occupation before retirement? **RECORD VERBATIM & CODE IN GRID BELOW.**

2. Now can you tell me, what is the highest educational qualification attained by this person? **RECORD VERBATIM & CODE IN GRID BELOW.**

<table>
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<th>Education</th>
<th>Occupation</th>
<th>Illiterate</th>
<th>School up to 4 yrs.</th>
<th>School 5-9 yrs.</th>
<th>SSC / HSC</th>
<th>SSC / HSC Not Grad.</th>
<th>Grad./ Post Grad. (Gen.)</th>
<th>Grad./ Post grad. (Prof.)</th>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
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<tr>
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<td>E2</td>
<td>E2</td>
<td>E1</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
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<tr>
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<td>E2</td>
<td>E1</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>B2</td>
<td>B2</td>
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<tr>
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<td>E2</td>
<td>D</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>B2</td>
<td>B2</td>
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<tr>
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<td>D</td>
<td>D</td>
<td>C</td>
<td>B2</td>
<td>B1</td>
<td>A2</td>
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<td>05</td>
<td>D</td>
<td>C</td>
<td>B2</td>
<td>B1</td>
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<td>* 1-10 employees</td>
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<td>C</td>
<td>B2</td>
<td>B2</td>
<td>B1</td>
<td>A2</td>
<td>A2</td>
<td>A1</td>
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<tr>
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<td>D</td>
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<td>C</td>
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<td>B1</td>
<td>B1</td>
<td>A2</td>
<td>A1</td>
<td>A1</td>
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</tbody>
</table>

Continue only if coded A1, A2, B1, B2 or C, ELSE TERMINATE;


For all those claiming to be using processed fruits, vegetables or spice products, please administer interview personally after filling in demographic data, personal data of respondent and serial number of questionnaire.