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STUDY ON IMPACT OF INNOVATION ON BUSINESS PERFORMANCE WITH SPECIAL REFERENCE TO FOOD PROCESSING COMPANIES IN CHENNAI -AVADI

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Abstract:

Many studies of the innovations are made in the foreign countries in the manufacturing industries especially in food processing industry. In India it is very important to focus on the innovation activities of food processing industry and governmental support to this industry. The past research studies shows main focus of research in food processing industry is on its size, patterns of ownership, strengths and weaknesses, technological development, agriculture waste etc. Some researchers tries to concentrate on innovative factors of this industry but only technological innovation studies are done. It is well known fact that Avadi is the city having large scope for development for food processing industry as it is having large agricultural field, large no. of customers, more incentives and facilities for exports and favorable business environment. So to understand the impact of innovation in the food processing industry and to help to the manufacturing industry, government and agriculture industry to frame the policies this study is done, to execute this research researcher has used descriptive analysis using chi square statistic to test the relationship between hierarchical variable.

Keywords: Innovation, Food Processing, Financial performance, Working Capital, Brand Awareness

Introduction:

One of the objectives of researcher is to know the barriers and drivers of innovation in this industry. There are many barriers and drivers of innovation in the food processing industry. As per location, size, product line, ownership patterns and situation these factors get changed. Drivers - the factors whose existence supports companies to do innovation. Barrier – the factors whose existence not motivate the company to do innovation.

Innovation-. The researcher considers the definition provided the Oslo manual to define innovation. innovation as a new or significantly improved product (goods or services) or process, a new marketing method , a new organizational method in business practice ,workplace organization or external relation. The main focus of this study is on product innovation, so the product innovation is defined as on the basis of Oslo manual. The researcher also taken into consideration the types of innovation on basis of information provided by the Oslo Manual.

2.2 Objectives of the Study

Following are the main objectives for which the study is going to conduct

1. To find out the drivers of product innovation in food processing companies
2. To study the barriers of product innovation in food processing companies
3. To study the impact of product innovation on performance of food processing companies(financial performance and market share)

Statement of the Hypothesis

Hypothesis

H0- Product Innovation do not affect financial performance of food processing companies.

H1- Product Innovation affects positively on financial performance of food processing companies.

Scope of the Study

The scope of the study is limited up to the food processing companies working in the Avadi and Avadi Suburbs area.

The samples are from organized sector and the form of business organization is joint stock companies. The Food Processing Companies registered under Indian Companies Act will be considered as population.

The items under food processing units will be convenience food segment, milk and milk products and beverages. The data collected from the year 2016 till the year 2021, only product innovation impact is studied.

Research Gap:

The researcher found that the literature shows lot of research work on term innovation. In literature the term innovation is generally related to the technological innovation, the impact of technological innovation on businesses is studied. The literature on types of innovation is found but the impact of product innovation is untouched subject. Lots of literature is found on the Indian food processing industry as its one of the shining industries. The research work on its challenges, procedures, administration, and opportunities is found but the relation of innovation and food processing industry is not yet studied.

Literature review

Food Processing Development One of the article on food processing studies 'Food Processing Industry in India: S & T Capabilities, Skills and Employment opportunities' (Mohammed rais, 2013) discusses the Science and Technology capabilities of organized food processing sector. It focused light on the scenario of Indian organized food sector and the skill gaps the industry is facing in its human resource. It is observed that the food processing sector is rapidly growing sector in Indian economy. The export share in total food market is less as compare to other countries share but the increasing rate of export is a good sign for India. The researcher also highlighted problems relating to government support to this sector like inadequate infrastructural facilities, lack of National Policy suitable to all types of segments in food processing, lack of strict food safety law and its implementation and non-suitability of central food processing polices with state policies.

A finite universe is chosen by the researcher. The food processing companies in Avadi and Avadi suburbs is a universe for the study. It has various segments like convenient food, Milk and Milk products, Beverages (alcoholic and non-alcoholic), Meat and Poultry, health foods, Grain milling, fast food etc. The food processing industry considers primary and secondary Sector. The primary food processing considers business like grain mills, slaughtering etc. are considered whereas secondary food processing considers value addition in the primary processed food like jam, chips, sausages, convenient products, biscuits etc. Researcher has chosen secondary sector and in that convenient food, milk and milk products and non-alcoholic beverages for forming universe.

Samples

For collecting the data through questionnaire researcher had chosen samples from the Universe i.e. private limited companies working in Avadi and Avadi suburbs in convenient products, milk and milk products and Beverages (non-alcoholic).

Sampling Units

The sampling units are food processing companies in Avadi and Avadi suburbs. Therefore, only organized sector in food processing is studied.

Hypothesis Testing:

The chi square statistic is commonly used to test the relationship between hierarchical variable. The null hypothesis of the chi-square test is that no relation exists categorical variables in the population; they are free, The chi-square statistic is most commonly used to evaluate the test of independence. When using cross tabulation (also known as bivariate table). cross tabulation Presents the distribution of two categorical variables together

The intersection of the ranges of variables that appear in the cells of the table The test of independence assesses whether an association exists between the two Compare the observed pattern of responses in cells with the pattern This would be expected if the variables were actually independent of each other. Computing the chi-square statistic and comparing it with a critical value The chi-square distribution allows the researcher to assess what is observed Cell counts are significantly different from expected cell counts. Since

chi square test can be done only on categorical data i.e. yes or no type data. The entire raw data obtained in the form of responses has been translated into graded responses and which are clearly mentioned in the form of tables and statistics in the analysis section of the research study.

SAMPLING PROCEDURE

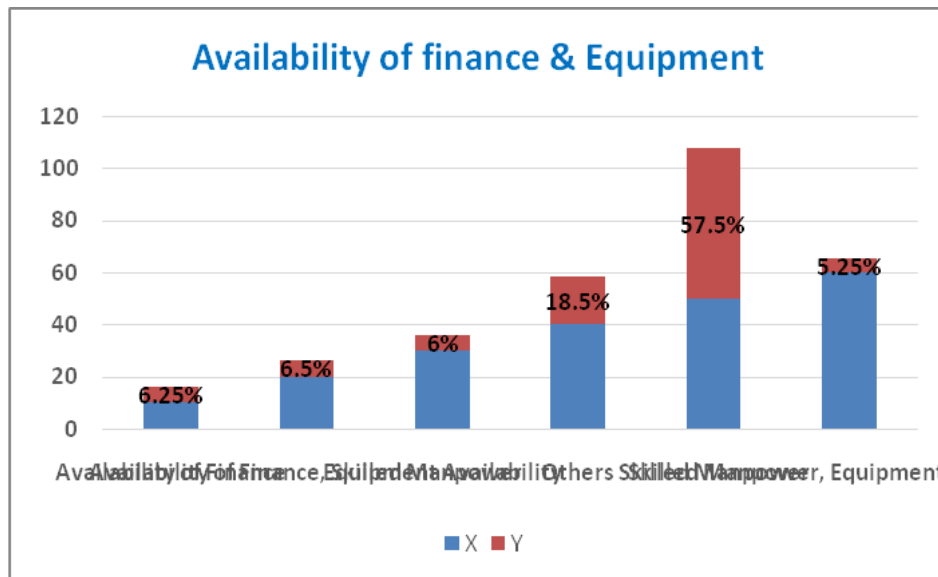
In profitability sampling random sampling will be used. As in random sampling equal chances are there for each unit to get selected so without any bias sample would get selected which will provide true picture of the study. In our study the food processing units constitutes organized sector, small and large business companies from Avadi and its suburb areas.

Source List -The list of the companies (universe) is collected from The Industrial Directory of Avadi (Agriculture and Food Processing Sector) Eighth Edition published in the year 2012-2013 by Tamilnadu Chamber of Commerce, Industries and Agriculture (TCCIA).

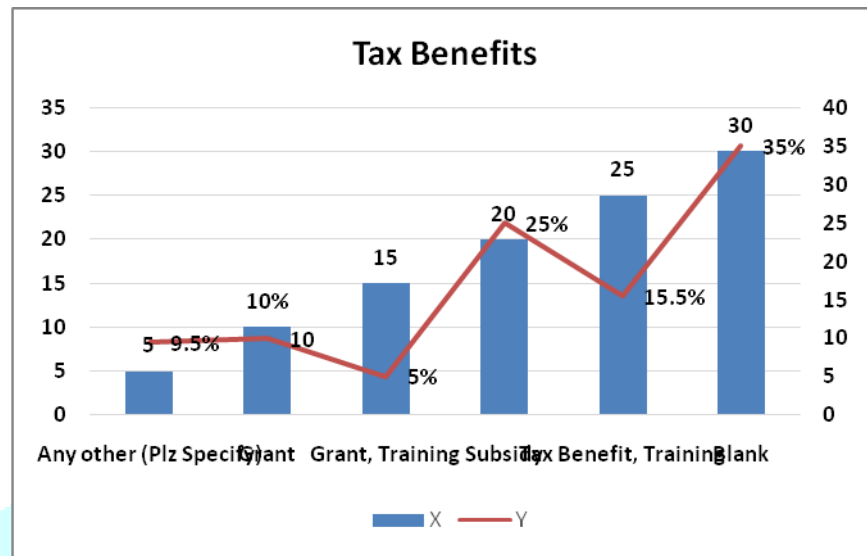
| S. No. | Type of Products | Population | Sample | Percentage |
|--------|---------------------------|------------|--------|------------|
| 1 | Convenient product | 39 | 14 | 35 |
| 2 | Milk and milk product | 20 | 16 | 40 |
| 3 | Beverages (non alcoholic) | 31 | 10 | 25 |
| | TOTAL | 90 | 40 | 44.44 |

Interest -The researcher’s interest is in knowing the impact of innovation on financial performance and market share of food processing companies. The interest group is board of director, top level management or chairman, managing director of the companies. Period of study – The researcher collected the data from 2016-2021 of five years. The company’s data only for that period is considered.

ANALYSIS:



As companies are having enough finance are starting the Research and Development department but availability of equipment is one of the problems faced by this department. Advanced equipment is not available easily in local or state market. The other problems include rigid government policies.



Insight Gainer: Government is motivating to these companies by the ways of tax benefits, subsidy, grants etc. 37.50% companies do not get any kind of assistance from government.

| S. No | Statements | Strongly Agree | % | Agree | % | Neutral | % | Disagree | % | Strongly Disagree | % | Total |
|-------|---|----------------|-------|-------|-------|---------|-------|----------|------|-------------------|-------|-------|
| 1. | Innovation Creates Brand Awareness | 25 | 62.5% | 10 | 25% | 5 | 12.5% | 0 | 0% | 0 | 0% | 40 |
| 2. | Skills Create Product Innovation Capacity | 17 | 42.5% | 11 | 27.5% | 3 | 7.5% | 4 | 10% | 5 | 12.5% | 40 |
| 3. | Product Innovation Creates Market Share | 16 | 40% | 14 | 35% | 9 | 22.5% | 1 | 2.5% | 0 | 0% | 40 |
| 4. | Innovation Acquires New Customers and Retains Old | 20 | 50% | 18 | 45% | 0 | 0% | 0 | 0% | 2 | 5% | 40 |
| 5. | Innovation Increases Working Capital | 18 | 45% | 14 | 35% | 0 | 0% | 1 | 2.5% | 7 | 17.5% | 40 |

Insight Gained: Majority of companies agrees to the thing that easy availability of finance helps to promote innovation activities. As availability of finance helps them to purchase machineries and equipment required for research and development. The non-availability of funds for long term will demotivate company from promotion of innovation (product & other).

1. HO: Product Innovation do not effect on financial Performance of food Processing Companies

| | Tested Variables | P Value | Result | Reason |
|--|--|----------------------------------|---------------|---|
| HO: Product Innovation do not effect on Financial Performance of Food Processing Companies | 1.Innovation Increases Working Capital | 1.57768E-02 (i.e.-0.015776757) | Reject | P value > α value at 0.05% confidence interval with <i>I d.f</i> |
| | 2.Increase / Decrease in Revenue | 4.32275E-05 (i.e.-0.0000432275) | Reject | P value > α value at 0.05% confidence interval with <i>I d.f</i> |
| | 3. Increase / Decrease in Net Profit | 8.95658E -05 (i.e.-0.0000895658) | Reject | P value > α value at 0.05% confidence interval with <i>I d.f</i> |
| | 4. Increase / Decrease in Net Asset | 5.31213E -05 (i.e.-0.0000531213) | Reject | P value > α value at 0.05% confidence interval with <i>I d.f</i> |

1. H1: Product Innovation affects positively on financial performance of food processing companies

| | Tested Variables | P Value | Result | Reason |
|--|--------------------------------------|-------------|---------------|---|
| H1: Product Innovation affects positively on financial performance of food processing companies. | 1.Increase/ Decrease in Patents | 0.157299265 | Accept | P value > α value at 0.05% confidence interval with <i>I d.f</i> |
| | 2.Increase/ Decrease in Exports | 0.196705719 | Accept | P value > α value at 0.05% confidence interval with <i>I d.f</i> |
| | 3.Innovation Creates Brand Awareness | 1.96325E.07 | Reject | P value > α value at 0.05% confidence interval with <i>I d.f</i> |

Product Innovation do not affect on financial performance of food processing companies. As mentioned earlier, the statement of 1st hypothesis is a negation of any relationship between: Product Innovation and financial performance .It is found that the P values found for the above 7 variables to test the hypothesis are significant at 0.05 % level of confidence and therefore the hypothesis. H0: “Product Innovation do not effect on financial performance of food processing companies” is REJECTED and conversely Ha: Product Innovation has significant relationship with financial performance of food processing companies” is ACCEPTED. 2. Product Innovation do not effect on market share of food processing companies. The 2nd hypothesis is also a negation of any relationship between: Product Innovation with market share. It is found that the P values found for the above 8 variables to test the hypothesis have produced mixed results at 0.05 % level of confidence.

FINDINGS

Majority of Companies are not involved in collaborations, MOUs, Tie-ups, outsourcing with other organizations., but for radical innovation collaborations, tie –ups and doing MOUs with other businesses is also necessary.

Some businesses noticed decrease in sale the reasons claimed by companies behind these decreases are demonetization and introduction of GST act. These businesses are micro and small in nature.

As more finance is required for product development. So, for short period financial barrier plays a driver role for innovation and for long term, it is a barrier for product innovation.

Most of the companies (93.33%) agree that easy availability of finance boosts to product innovation.

SUGGESTIONS

1. The food processing business is dominated by the unorganized market. Small dairies, beverages are generally run by the household businesses and small proprietaries where Food safety Act and other regulations are not followed properly also impact of innovation and other studies cannot be conducted therefore for organizing these businesses strong steps must be taken.

The companies who have active Research and Development department but not registered should register it so that it can avail the benefits of government schemes.

Companies can fund extra amount for research and development from their profit which will help to motivate break through innovation.

Lack of resources is one of the reasons for avoiding radical innovation. If companies form clusters (a common platform where companies having common need for skill, talent, and infrastructure are needed) for the research and development activity then radical innovation can be done.

GST Act is a hurdle to many companies as it collects raw material many a times from suppliers who are from unorganized sector, so companies are not able to get GST Returns from them.

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