

**A STUDY ON CONSUMER BEHAVIOR AND SATISFACTION WITH  
SPECIAL REFERENCE TO AAVIN MILK PRODUCER CO OPERATIVE  
SOCIETY, ERODE**

**A PROJECT REPORT**

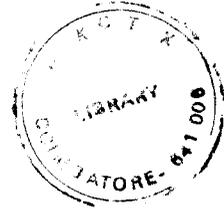
P- 2492

Submitted

by

**M.GNANASEKARAN**

**Reg. No. 0720400012**



in partial fulfillment of the requirements of

**Anna university-Coimbatore**

for the award of the degree of

**MASTER OF BUSINESS ADMINISTRATION**



**DEPARTMENT OF MANAGEMENT STUDIES**

**KUMARAGURU COLLEGE OF TECHNOLOGY**

**JULY 2008**

*CERTIFICATE*





THE ERODE DISTRICT  
CO-OPERATIVE MILK PRODUCERS' UNION LIMITED ED-296  
VASAVI COLLEGE POST - 638 316, ERODE. TAMILNADU.

TIN. No. 33033000188 CST: 432216/18.04.78 PHONES: 2533573, 2533574, 2535326, 2535336 FAX: 0424-2534150  
erodairy@rediffmail.com

Dated 18.07.2008

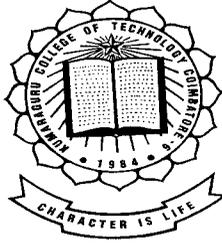
**CERTIFICATE**

This is to certify that Mr. GNANASEKARAN. M, (07-MBA-12)  
M.B.A. student of KUMARAGURU COLLEGE OF  
TECHNOLOGY, COIMBATORE has carried out  
Project on MARKETING in our Organisation for a  
period of one month from 14.06.2008 to 16.07.2008.

During that period, his performance and character were good.

for General Manager  
The Erode District Cooperative Milk  
Producers' Union Ltd., Erode 638316.





**DEPARTMENT OF MANAGEMENT STUDIES  
KUMARAGURU COLLEGE OF TECHNOLOGY  
COIMBATORE**

**BONAFIDE CERTIFICATE**

Certified that this project titled “A STUDY ON CONSUMER BEHAVIOR AND SATISFACTION WITH SPECIAL REFERENCE TO AAVIN MILK PRODUCER CO OPERATIVE SOCIETY, ERODE” is the bonafide work of **M.GNANASEKARAN (Reg. No. 0720400012)** who carried out this research under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

  
**Faculty Guide**

  
**Director**

Evaluated and viva-voce conducted on..... 1. 11. 08 .....

  
**Examiner I**

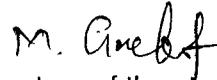
  
**Examiner II** ..

*DECLARATION*



## DECLARATION

I hereby declare that the dissertation entitled "**A STUDY ON CONSUMER BEHAVIOR AND SATISFACTION WITH SPECIAL REFERENCE TO AAVIN MILK PRODUCER CO OPERATIVE SOCIETY, ERODE**" submitted for the **MASTER OF BUSINESS ADMINISTRATION** degree is my original work and the dissertation has not formed the basis for the reward of any Degree, Associate ship, Fellowship or any other similar titles.



Signature of the student

# *ACKNOWLEDGEMENT*



## ACKNOWLEDGMENT

Right from the genesis of the every idea to work on the subject to the submission of the research report, I have incurred both intellectual and moral debts to many eminent personalities. Hence, I would like to express my sincere gratitude to them.

First and foremost I am very thankful to the Chairman **Dr. N. Mahalingam** for giving me an Opportunity to pursue this research in the esteemed institution.

I am equally indebted to Principal **Dr. Joseph V. Thanikal**, Kumaraguru College of Technology for his encouragement and inspiration in successful completion of this dissertation.

I wish to extend my gratitude and respectful regards to my guide **Dr. B. Subramani**, Assistance professor for his benevolent, constant encouragement, untiring help and critical reading of the manuscript to complete this thesis successfully.

I would like to extent my thanks to Library Staff Members of Kumaraguru College of Technology.

I am highly obliged to extend my sincere thanks to **Mrs. Punithavathi** Head- Projects & **Aavin milk producer co operative society** for his effective guidance and valuable support to carry out this project in their premises.

I earnestly thank all **My Parents** and **Friends** for their support and constant encouragement given throughout the period of my study.

Above all, I am grateful to God for bestowing me with patience for completion of this research work.

*CONTENTS*



## TABLE OF CONTENTS

<b>Description</b>	<b>Page No</b>
Acknowledgement	i
Contents	ii
List of Tables	iii
List of Figures	iv
<b>CHAPTER I</b>	
Introduction	1
Industry	4
Micro and Macro analysis	7
Company	8
Review of Literature	16
<b>CHAPTER II</b>	
Methodology	25
<b>CHAPTER III</b>	
Analysis and Interpretation	29
<b>CHAPTER IV</b>	
Findings and Inference	40
<b>CHAPTER V</b>	
Recommendations	41
<b>CHAPTER VI</b>	
Conclusion	42
Appendices	
Bibliography	

## *LIST OF TABLES*



### LIST OF TABLES

<b>S.No</b>	<b>TITLE</b>	<b>Pg.No</b>
<b>1</b>	<b>Distribution of respondents by their age</b>	<b>29</b>
<b>2</b>	<b>Distribution of respondents by their gender</b>	<b>30</b>
<b>3</b>	<b>Distribution of respondents by their occupation</b>	<b>31</b>
<b>4</b>	<b>Distribution of respondents by their family income</b>	<b>32</b>
<b>5</b>	<b>Distribution of respondents by their size of the family</b>	<b>33</b>
<b>6</b>	<b>Distribution of respondents by their level of satisfaction with aavin product</b>	<b>34</b>
<b>7</b>	<b>Distribution of respondents by their opinion about the customer services provided by aavin</b>	<b>35</b>
<b>8</b>	<b>Distribution of respondents by their level of satisfaction towards present retail outlet</b>	<b>36</b>
<b>9</b>	<b>Distribution of respondents by their opinion about need to make changes in pricing policy</b>	<b>37</b>
<b>10</b>	<b>Distribution of respondents by their perception of aavin compared with its competitor</b>	<b>38</b>

*LIST OF CHARTS*



## LIST OF CHARTS

<b>S.No</b>	<b>TITLE</b>	<b>Pg.No</b>
<b>1</b>	<b>Distribution of respondents by their age</b>	<b>29</b>
<b>2</b>	<b>Distribution of respondents by their gender</b>	<b>30</b>
<b>3</b>	<b>Distribution of respondents by their occupation</b>	<b>31</b>
<b>4</b>	<b>Distribution of respondents by their family income</b>	<b>32</b>
<b>5</b>	<b>Distribution of respondents by their size of the family</b>	<b>33</b>
<b>6</b>	<b>Distribution of respondents by their level of satisfaction with aavin product</b>	<b>34</b>
<b>7</b>	<b>Distribution of respondents by their opinion about the customer services provided by aavin</b>	<b>35</b>
<b>8</b>	<b>Distribution of respondents by their level of satisfaction towards present retail outlet</b>	<b>36</b>
<b>9</b>	<b>Distribution of respondents by their opinion about need to make changes in pricing policy</b>	<b>37</b>
<b>10</b>	<b>Distribution of respondents by their perception of aavin compared with its competitor</b>	<b>38</b>

# *CHAPTER - I*

## *INTRODUCTION*

---

# CHAPTER I

## INTRODUCTION

### 1.1 INTRODUCTION OF PROJECT

Marketing is a total system of business, an on going process of discovering and translating needs into products and service (through discovering and producing the desired products), creating demand for these products and products and service (through promoting and pricing), servicing the consumer demand (through planned distribution) with the help of marketing channels and expanding the market even in the fact of competition. The modern marketer is called upon to set the marketing programs to assure the accomplishments of the set marketing objectives. The marketing program covers products planning or merchandising price, promotion and physical distribution.

There is only one boss - were a person shines shoes for a living or heads the largest corporation in the World. The boss remains the same. It is the customer, the person who decides whether a business is going to succeed or failed and he does not care if a business had been around for a hundred years, the minute start treating him badly, he will put it out of business.

The customer is king, what ever the business; hence, the customer's satisfaction only can be the doing for the existence of any product in the Market.

There are lots of factors influencing the customer's level of satisfaction. Some factors are price, quality, availability, package and taste etc.

The buyer's expectations are influenced by their past buying experience, friends and associates advice and marketers and competitor's information and promises. If Marketers raise expectations too high, the buyer is likely to be disappointed. However, if the company set expectations too low it won't attract enough buyers although it will satisfy those who do

Generally Motives create the purchase of a product. Motives refer to thought; urge strong feelings, emotion, drive, etc. to make a buyer to react in the form of decision. The Motive may be generally controlled by economic, social, psychological influences etc.

### **1.1.1 MARKET**

The term Market refers not to a place but to a commodity or commodities and buyers and sellers who are in direct competition with one another.

Markets are like blood of business, consumers are its principal sources of revenue and it is in meeting the needs and preferences of buyers making the market and the firm finds economic justification for its existence.

### **1.1.2 MARKETING**

According to American Marketing Association "Marketing is concerned with the people and activities involved in the flow of goods and services from the producer to the consumer.

### **1.1.3 CUSTOMER**

Today's companies are facing their toughest competition ever. The companies can out do their competition if they can move from a product and sales philosophy to a marketing philosophy. We deal in detail how companies can go about winning customers and out performing competitors. The answer lies in doing a better job of meeting and satisfying customer needs only customer centered companies are adopt of building customers not just building product. They are skilled in market engineering not just product engineering.

“Too many companies think that it is the marketing sales department, cannot, the company draws the conclusion that the marketing people are not very good. But, in fact marketing department in the world cannot sell products that are poorly made or fail to meet anyone’s need. The marketing department can be effective only in companies whose various department’s only in companies whose various department and employees have designed and implemented a competitively superior customer value delivery system.”

**1.1.4 CUSTOMER SATISFACTION**

Satisfaction is a person's feeling of pleasure or disappointment resulting from comparing a product perceived performance (or our come) in relation to his or her expectations.

“As this definition makes clear satisfaction is a function of perceived performance and expectations. If the performance falls short of expectations, the customer is dissatisfied. If the performance matches the expectations, the customer is satisfied. If the performances exceed expectations, the customer is highly satisfied or delighted.”

Many companies are aiming for higher satisfaction because customers who are just satisfied still find it easy to switch over when a better comes along. Those who are highly satisfied are much less needy to switch over. High satisfaction on delight creates an emotional affinity with the brand, not just a rational preference. The result is high customer preference.

**STATEMENT OF THE PROBLEM**

In today’s world of rapidly changing technology, consumers taste and preference are also characterized by fast changes. To meet this managing environment a firm has to be constantly innovate and understand the latest consumer’s needs and wants. Consumer behaviors provide invaluable items and guidelines to marketers and new technological

## **1.2 INTRODUCTION TO THE INDUSTRY**

Dairy cooperative society was established at Chennai in 1972. Tamil Nadu Dairy Development Corporation was registered under the Companies Act 1956 in 1978. A three tier system constituting state federation, district level unions and village dairy cooperatives were developed and four balancing dairies are located in Salem, Erode, Krishnagiri and Madurai which provides excellent facilities for the efficient conversion of milk into dairy products during the flush season.

Tamil Nadu has more than 8400 milk producers cooperative societies including 1400 societies exclusively managed by women and 17 district milk producers cooperative unions are there. Among these 700 societies are functioning effectively.

## **INDUSTRY PROFILE (DAIRY SECTOR)**

Dairy Development in India has been acknowledged the world over as one of the most successful development programme. India is the second largest milk producing country with the production about 78 million tons during 1999-2000

The milk surplus states India are Uttar Pradesh, Punjab, Haryana, Rajasthan, Gujarat, Maharastra, Andra Pradesh, Karnataka and Tamil Nadu. The manufacturing of milk products is concentrated in these milk surplus States.

Dairy sector has assumed a great significance by generating income not only to the rural but also to the urban and semi- urban population in the state especially to the women folk by providing self employment opportunity. Milk and milk products provides essential nutrition to all walks of life. It provides the main source of income next to agriculture. In a tropical country like India, agriculture may fail sometimes, due to monsoon failure but dairying never fail and gives them regular, steady income.

The state Dairy Development Department was established in 1958. The Administrative and statutory controls over the entire milk cooperative in the State were transferred to the Dairy Development Department on 01.08.1965. The Commissioner for the Milk Production and Dairy Development is the functional registrar under the Tamilnadu Co-operative Societies Act 1983.

With the advent of “Anand Pattern” in Tamil Nadu, Tamil Nadu Co-operative Milk Producers Federation limited was registered on 1st February 1981 as the State level organization. The commercial activities of the department such as procurement, processing, packing and the sale of milk and milk products within and outside the State was entrusted to the Tamil Nadu Co-operative Milk Producer's Federation Ltd.

In the wake of the liberalization policy, private dairies have entered in the field of dairying. As per. the direction of the National Dairy Development Board and Government of Tamil Nadu high priority has been given for improving the performance of Co-operatives by adopting a systematic approach and proper strategy implementation in milk co-operatives. Significant achievement has been made by Milk Producer's Co-operative Societies, Unions and Federation in the state of Tamilnadu.

## **TWO FOLD OBJECTIVES OF THE DAIRY DEVELOPMENT DEPARTMENT**

1. Assure a remunerative price of the milk produced by the milk producer's societies through a stable, steady and well market support.
2. Distribution of quality milk and milk products at reasonable price to the consumers.

## **FUNCTIONS OF THE DAIRY DEVELOPMENT DEPARTMENT**

The main functions of the Dairy Development Department are organization of societies, registration of societies, supervision and control of Primary Milk Co-operative, District Co-operative Milk Producers Union and Tamil Nadu Co-operative Milk Producer's Federation.

The Dairy Development Department exercise statutory functions like enquiry, inspection, surcharge and super session, appointment of special officers, liquidation and winding up of dormant societies etc.

The Commissioner for milk production and Dairy Development, Deputy Milk Commissioner (Co-operative) and circle Deputy Registrars are vested with quasi-judicial power in respect of settlement of dispute, appeal, revision and review under various provisions of Tamilnadu co-operative societies Act 1983 and rule 1988 made there under.

### **1.3 MICRO AND MACRO ANALYSIS**

Aavin milk producer co operative society is one of the customer satisfaction and behavior. It draws its personnel from many disciplines. They are the building blocks on which the company's performance & productivity is based".

Dairy cooperative society was established at Chennai in 1972. Tamil Nadu Dairy Development Corporation was registered under the Companies Act 1956 in 1978. Their retail market high growth rate over the past 30 years has provided challenging competitor product.

The share capital is 46.92 lakhs. year premium income increased by over 467.25 from Rs. 476.34 crores in the previous year to Rs. 657.54 crores in the current year. The dairy sales are 22 lakhs per day. During the year, the company introduced new and improved products replacing some of the existing products. The company now has a portfolio of 3 chilling centre and 754 of society are registered, along with 728 society are functioned. Most retail products are offered on both, the conventional and unit linked platforms.

The dairy sector most valuable assets are their customer relation ship and it is their constant Endeavour to continuously develop them by laying strong emphasis on their marketing strategy. They are truly proud that today they have a highly performed team of professionals and that they have the lowest employee turnover rate in the Industry.

The milk average procurement are 2350000 at present. company's focus on the retiring the consumer. During the year, the Company has invested in additional infrastructure capacity, in terms of offices, technology, staff, financial consultants, in order to be well positioned to increase the growth momentum in the year ahead.

#### **Organizational Culture & Values:**

The company has an open and informal culture. The company value integrity, commitment, teamwork and excellence in customer service. They adopt a policy of "Learning by Doing" which encourages decision making as well as learning from doing.

## 1.4 COMPANY PROFILE

The Erode District Cooperative Milk Producers Union Ltd (Erode Aavin) is a replica of the district milk unions in Gujarat state based on the famed. “Amul” system. The Erode Union is, therefore, sandwiched in the middle of the 3 – tier system popularly known as the “ANAND” or “AMUL” pattern consisting of an apex state level federation at Chennai, the unions at the district level and the primary cooperative societies at a village level. The entire project has been funded by the National Development Board, Amul through the government of Tamil Nadu and the Tamil Nadu Cooperative Milk Producers Union Federation. The project has been funded under the nation wide operation flood programme with an aim to bring about a socio economic awakening in rural India.

The district union has 728 primary milk cooperatives at its base and the Tamil Nadu Cooperative Milk Producers Federation as its apex body. Erode Aavin is considered to be one of the leading cooperative milk producers in India. It is situated at 12Kms away from Erode. This district cooperative has functioning

- Feeder balancing
- Cattle feed plant

## **HISTORY AT A GLANCE**

Date of registration	:	07.02.1975
Date of functioning	:	01.07.1976
Sharecapital	:	Rs.46.97 Lakhs
Area of operation	:	Erode district
Functional units	:	Feeder Balancing Dairy – Chithode. Cattle feed plant, Erode. Chilling Centre, Sankarandampalayam Chilling Centre, Sathyamangalam, Chilling Centre, Thalavady.
Number of Employees	:	560

## **OBJECTIVE OF ERODE AAVIN**

- Attaining economically and effectively the organization goal.
- Serving to the highest possible degree: the individual goal.
- Preserving and advance the general welfare of the community.
- To create job opportunity.
- To develop the production.
- To give proper salary and wages to employees.
- Consumer satisfaction.

## FUNCTIONS OF ERODE AAVIN

- Establishment of chilling centers.
- Supply of quality milk with hygienic conditions to Chennai metro.
- Fixation of procurement and selling price of milk.
- Important training to the staff members on first aid and on artificial insemination.
- Extending artificial insemination services to the cattle owned by the members of milk cooperative societies.

Erode union is acting as feeder balancing dairy. Surplus milk in the district unions, after meeting their local sales is diverted to the nearest feeder.

## FEEDER BALANCING DAIRY

Commencement of Production -1 - 01.03.1981

### Capacity

Liquid milk processing	-	3.0 lakh litres per day
Power production	-	10 + 30 MT per day
Butter production	-	12 MT per day
Ghee Production	-	8 MT per day
Automatic ghee filling	-	5 MT per day

### Milk Procurement

Total no. of societies registered	-	754
No. of societies functioning	-	728
Average procurement at present (Lpd)	-	235000
Value of milk purchase per day	-	22Lakhs

## Chilling Centers

Functional Units	Outlay (Rs. In Lakhs)	Capacity (Liters Per day)	Commencement of Production
Sankarandampalayam	82.28	50000	01.05.1982
Sathyamangalam	24.80	30000	11.08.1983
Thalavady	10.00	5000	29.12.1989

## QUALITY CONTROL

Quality control department control the quality of the products. This sets the quality plan for new products on the basis of production control plan. The test will be done in laboratory. If the ratio's are correct then the products will be released after testing. Dairy has two labs.

- Reception lab
- Production lab

In reception lab, the milk is checked for quality ratio on the basis of fat and other contents.

In production lab, the milk and other milk products are tested to find out the bacteria and other germs ratio and maintain the quality of the product.

## QUALITY POLICY

Erode Aavin is committed to provide hygienically produced milk and milk products by continual improvement of products and services to the utmost satisfaction of customers.



## **QUALITY OBJECTIVES**

- To adopt hygienic production milk and milk products.
- To improve the customer satisfaction.
- To enhance the competency of the employees by training and development.
- Continual improvement of quality of products and services.

## **PROCESSING OF MILK**

Milk is very pure and safe when it comes from the udder. But soon it get contaminated due to the attack of micro organisms in the environment and due to the enzymes which are present naturally. Chilling, pasteurization, reconstitution, etc. are the process involved in preparing the milk for market.

- Chilling of milk
- Pasteurization
- Standardization
- Recombination

## **LABOUR WELFARE**

### **a) Insurance**

Employee State Insurance (ESI) is applicable to employee whose monthly salary does not exceed for Rs.6500, employers has to contribute 5% of the basic pay + DA + HRA.

All the employees are covered under the personal insurance scheme which covers them in the event of death.

**b) Leave**

- Casual Level
- Medical Leave
- Saturday and Sunday
- Privilege Level

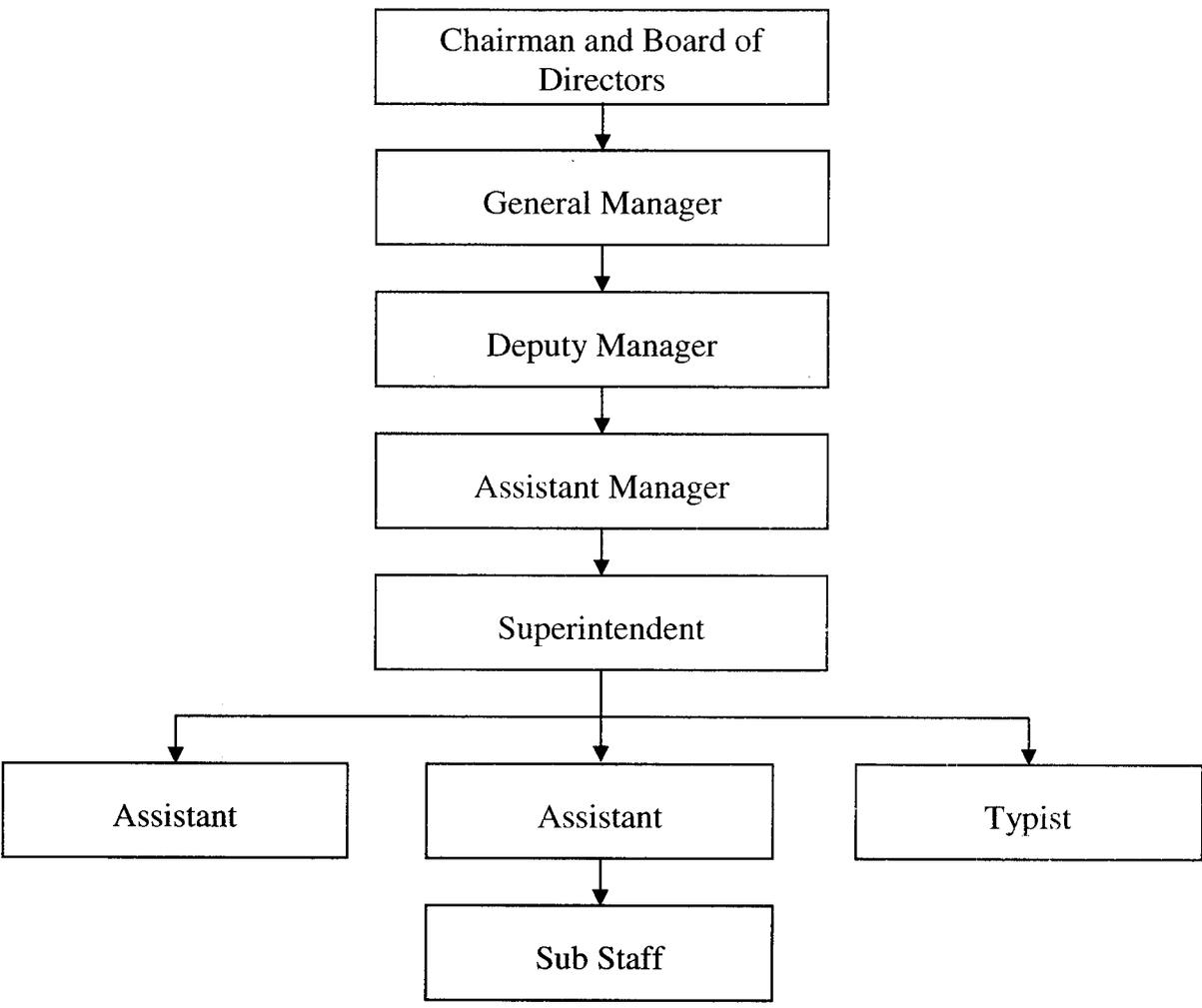
**c) Uniform**

Three sets of uniforms are given to all employees including trainees. [Export Office and Management Staff]

**d) Support to Training and Development Programme for Women**

Societies formed under STEP	-	20
Total members under STEP	-	1926
Quality of milk procurement under STEP (1 pd)	-	4072
Total Project Cost (Rs. In. lakhs)	-	88.5
Project Period	-	2002 – 2005.

**ORGANIZATION CHART**



## **SCOPE OF THE STUDY**

- 1 The study will enable the organization to increase the sales of the Aavin Milk and Milk Products.
- 2 The general survey about the customer satisfaction in quality, package, quantity, price and satisfaction includes in this study.
- 3 This study can extend to get the feed back from the customer about the company strategies.

## **OBJECTIVES OF THE STUDY**

1. The main objective of the study is to know the consumer behavior of Aavin milk producer in Erode district.
2. To study about the marketing strategies.
3. To study about quality, quantity, price and other various factors for preferring this brand.
4. To identify the respondents opinion of selecting the Aavin Milk Products
5. To offer suggestion to the organization based on the findings of study

## **LIMITATIONS OF THE STUDY**

- 1 The study is restricted to Erode Aavin. So the result of study is applicable to Erode Aavin only.
- 2 The size of sample is confined to 100 customers only. Hence the analysis of the study cannot be generalized.

## **1.4 REVIEW OF LITERATURE**

### **1.4.1 INTRODUCTION**

The literature review section examines recent (or historically significant) research studies, company data, or industry reports that acts as a basis for the proposed study. The literature review may also explain the need for the proposed work to appraise the shortcomings and / or informational gaps in secondary data sources. The researcher may review two types of literature – the conceptual literature, and the empirical literature. The purpose is “to locate the present research in the existing body of research on the subject and to point out what it contributes to the subject.

### **1.4.2 REVIEW OF LITERATURE**

Customer satisfaction is probably the most common form of market research but other kinds of research are equally important. The main categories are:

#### **Determinants of dining satisfaction and post-dining behavioral intentions**

Brun, Isabelle., dec 2008 in his article says that the purpose of this research is to empirically investigate the determinants and consequences of dining satisfaction with restaurant services. A total of 338 undergraduate business students participated in this research. Results reveal that there exist three sources of customers' satisfaction with restaurant services: positive emotions, perceived service quality and negative emotions. Positive emotions have more impact on customers' satisfaction than negative emotions. In addition, emotions mediate the impact of perceived service quality on dining satisfaction. Finally, satisfaction has a significant impact on recommendation, customer loyalty and willingness to pay more. (source: <sup>1</sup>Department of Business Administration, University of Moncton, Moncton, NB, Canada E1A 3E9).

## Constructing performance appraisal indicators for mobility of the service industries using Fuzzy Delphi Method

Chen, Pang-Cheng, 2008 in his article says that based on the four perspectives of the balanced scorecard, including the financial, **customer**, internal process, and learning and growth perspectives, this study applied Fuzzy Delphi Method to construct key performance appraisal indicators for mobility of the service industries. The constructed indicators could serve as a reference for the service industries to establish applicable performance appraisal indicators according to the properties of the each industry after mobility is introduced. The research findings showed that cost control, profit growth, and sales growth are the top three indicators in the financial perspective, while service/product quality, **customer satisfaction**, and service timing are the three major indicators in the **customer** perspective.

In the internal process perspective, information delivery, standard operation procedure, and interactions between staffs and clients are most valued. In the learning and growth perspective, corporate image, competitiveness, and employee **satisfaction** are most emphasized among various service industries.(source: Department of Transportation and Communication Management Science, National Cheng Kung University, 1, University Road, Tainan 701, Taiwan)

## Quality management systems from the perspective of organization of complex systems

The aim of this model is to analyse quality management systems from the standpoint of the organization of complex systems introduced by Robert Rosen. The concept that an organized system, under certain conditions, can be modelled as a living system introduces unsuspected tools to analyse its behaviour. The model is oriented towards the understanding of the implications of modifications introduced in laboratories working with a quality organization following the ISO/IEC 17025 standard. This standard establishes management and technical requirements concerning the documental organization, control of the management and technical records, personnel, equipments, test or calibration methods, etc.

The objective of the quality system implementation is to assure the quality of the product, the special consideration being the **customer's satisfaction** with all aspects of the service the laboratory offers. The improper use of the quality system tools has an impact on the laboratory activity. The perception of this fact can be negligible at the moment it happens. The model allows us to realize that this alteration always has a negative impact on the **customer** and it specially affects the continuous improvement that the laboratory must implement. ( Zaretzky, Alba N, oct 2008).

## **Trumpeting Benefits Boosts Customer Satisfaction**

The article discusses a public opinion poll related to the opinions of *customers* regarding their credit card issuers. According to the poll, which was administrated by the company J.D. Power and Associates, credit card companies' *customer satisfaction* scores are low because credit card companies are not educating consumers about the products which they offer.(source: Dosimetría de Radiaciones Ionizantes, Comisión Nacional de Energía Atómica, Presb. Juan González y Aragón 15, (B1802AYA) Ezeiza, Prov. de Buenos Aires, Argentina)

## **Improved customer satisfaction with a hybrid dispatching rule in semiconductor back-end factories.**

On-time delivery is a vital factor for *customer satisfaction* in the competitive semiconductor manufacturing industry, and to optimize on-time delivery manufacturers must continuously improve their management of work-in-progress (WIP). However, in undertaking to optimize WIP, managers are also concerned with short cycle times, high throughput, and high utilization.

In an attempt to find the most satisfactory solution to these potentially conflicting requirements with regard to WIP, the present study employs fuzzy analytic hierarchy process (AHP) to determine an appropriate set of acceptable WIP deviation levels (AWDLs).

(source: Graduate School of Business Administration, National Taiwan University, Taipei, Taiwan, R.O.C.)

## **Competitive advantage by adjusting design characteristics to satisfy cost targets**

A cost–design parameter method that optimizes cost and design characteristics simultaneously during product development is presented. The method is based on quality function deployment, which relates desired product attributes to design characteristics. The method works at three levels: strategic, tactical and operational. At the strategic level, goals are established for each *customer* desired, product attribute. At the tactical level, design characteristics are determined using a goal programming technique. Finally, at the operational level, product design characteristics are chosen to improve products while remaining within cost targets. This model is validated through the use of an example, where *customer satisfaction* versus new expenditure on the product is calculated. (Thomson, Vince, sep 2007)

## **The impact of employee satisfaction on quality and profitability in high-contact service industries**

The extant operations management literature has extensively investigated the associations among quality, customer satisfaction, and firm profitability. However, the influence of employee attributes on these performance dimensions has rarely been examined. In this study we investigate the impact of employee satisfaction on operational performance in high-contact service industries. Based on an empirical study of 206 service shops in Hong Kong, we examined the hypothesized relationships among employee satisfaction, service quality, customer satisfaction, and firm profitability.

Using structural equations modeling, we found that employee satisfaction is significantly related to service quality and to customer satisfaction, while the latter in turn influences firm profitability. We also found that firm profitability has a moderate non-recursive effect on employee satisfaction, leading to a “satisfaction–quality–profit cycle”. Our empirical investigation suggests that employee satisfaction is an important consideration for operations managers to boost service quality and customer satisfaction. We provide empirical evidence that employee satisfaction plays a significant role in enhancing the operational performance of organizations in the high-contact service sector.

( Yee, Rachel W.Y, 2007)

### **Managing the performance of outsourced *customer* contact centers**

This research focuses specifically on customer contact services that have been outsourced to external suppliers. The performance of the contact services supplier directly affects end customer satisfaction which underlines the need for appropriate management of customer contacts and consideration of the end customer's perspective in designing appropriate key performance indicators (KPIs). This research draws on various streams of literature including services purchasing, performance management and service quality to derive propositions on how to manage customer contact services suppliers.

These propositions are subsequently investigated in an in-depth case study. The results of the case study show that managing customer contact services suppliers on effectiveness rather than efficiency benefits the overall performance of the supplier. This research shows that quality improvements in both process and service delivery ultimately lead to decreased costs. These improvements will furthermore enhance customer satisfaction and improve buying company performance.( source: Department of Marketing and Logistics, University of Tennessee, 303 Stokely Management Center, Knoxville, TN,

## **A deeper understanding of consumer acceptance or a serving order effect?**

Cluster analysis is used widely to group consumers into homogenous “preference segments” from their patterns of overall liking ratings. In several case studies, cross tabulation of sample frequencies by serving orders reveals the assignment of consumers to segments may be due to the effect of serving order as opposed to genuine differences in acceptance patterns. This effect is defined as the “serving-order-by-segment effect”. To nullify this effect, four adjustment factors were developed and applied to the assessors’ data from six consumer tests. The adjustments differed in two ways: serving position and samples.

Regarding serving position, two of the adjustments affected the first-serve responses only, while the other two adjustments affected the responses for all serving positions. Regarding samples, two of the adjustments used the same value to adjust the responses for all of the samples, while the other two adjustments used sample-specific values to adjust the responses for each sample. The number of samples in each of the six consumer tests varied from three to eleven. With the exception of the eleven sample study, cluster analysis on adjusted data yielded different conclusions than for non-adjusted data and results among the four adjustments varied. Serving-order-by-sample interaction plots may be useful in determining the most appropriate adjustment factor.(source: McCormick & Company, 204

Wight Avenue, Hunt Valley, MD 21030, USA)

## **Influence on consumer decisions and behaviors**

Online product recommendation mechanism (agents) are becoming increasingly available on websites to assist consumers with reducing information overload, provide advice in finding suitable products, and facilitate online consumer decision-making. Central of these services is consumers' satisfaction with recommendation results. Traditional recommendation mechanism (TRM) is based content and/or collaborative filtering approach.

However, the remaining problem concerning TRM is how to analyze the causal relationships between quantitative and qualitative factors, and investigate their impact on the central routes and peripheral routes through which both quantitative and qualitative factors can affect customer online shopping decisions. It is well known that qualitative factors are hard to codify yet they have a significant effect on a customer's decision-making process in the form of causal relationships with quantitative factors.

Thus, a new online recommendation mechanism is required that incorporates qualitative factors systematically with quantitative factors to analyze their combined influence on customers' purchasing decision-making process. So, our study suggest that causal maps based recommendation mechanism (CMRM). Design/methodology/approach: ELM was applied to build hypotheses concerning how consumers' decision satisfaction and online shopping behavior are affected by CMRM. Specifically, the performance of the proposed CMRM is analyzed empirically by garnering the experiment data from 250 qualified respondents who were asked to refer to the proposed CMRM before making purchasing decisions on mobile phones.

Findings: Statistical results proved that the proposed CMRM could enhance consumers' decision satisfaction, attitude towards the recommended products, as well as positive purchase intentions and actual purchase. Practical implications: CMRM can be easily implemented on the web, allowing target consumers. ( Kwon, Soonjae, nov 2008)

### **Identification of product definition patterns in mass customization using a learning-based hybrid approach.**

Mass customization, which aims at satisfying individual customer needs with near mass production efficiency, has become a major trend in industry. Adopting the mass customization paradigm, customer preferences have a significant impact on the product design process. Thus, it is important for companies to make proper decisions in translating the voice of customers to product specifications. To facilitate this process, a learning-based hybrid method named KBANN-DT is proposed, which combines knowledge-based artificial neural network (KBANN) and CART decision tree (DT). In this method, the KBANN algorithm is applied to modeling the relationship between customer needs and product specifications. With prior domain theory, KBANN can provide a high generalization performance even if the data set is small. Based on the trained KBANN network, the CART DT algorithm is employed to extract rules from it. To illustrate the effectiveness of the proposed method, a case study in an elevator company is reported. The results show that the proposed method can be a promising tool for product definition. (source: Department of Industrial Engineering and Management, Shanghai Jiao Tong University, Shanghai 200240, People's Republic of China)

## *CHAPTER - II*

# *RESEARCH METHODOLOGY*

---

## **CHAPTER II**

### **RESEARCH METHODOLOGY**

Research methodology explains the various steps that are generally adopted by the researcher in studying a research problem along with the logic behind them.

#### **2.1 RESEARCH DESIGN**

The research design adopted for the study is descriptive design. The researcher has to describe the present situation in order to know the satisfaction of the customers. Hence descriptive research is used. Descriptive research can only report what has happened and what is happening.

#### **2.2 SAMPLING DESIGN**

##### **2.2.1 Sample Size**

The study is based only on the opinion and expectation of customers. The total number of sampling size of customers is 100.

##### **2.2.2 Data Collection Method**

The collection of data is considered to be one of the important aspects in the research methodology. There are two types of data that exist: one is primary data and the other is secondary data.

###### **2.2.2.1 Primary Data**

Well-structured questionnaires have been used for the collection of primary data from the respondents.

### **2.2.2.2 Secondary Data**

Secondary data has been collected from the company record, various magazines, journal and various web sites.

## **2.3 QUESTIONNAIRE DESIGN**

A well structured questionnaire was used for this study. The types of questions used in the questionnaire were open-ended, multiple-choice and Dichotomous question.

Open-ended questions **are questions, which are entitles to give a free response to their choice.**

Multiple-choice questions **are question, which contain a list of answer ad permit the subject to select the best answer.**

Dichotomous questions **are questions that only have two possible answer that is 'Yes' or 'No'.**

## **2.4 TOOLS USED FOR ANALYSIS**

The data collected from the respondents were converted into readable for processing, classification and arrangements. The data was tabulated and analyzed using Statistical Methods like.

1. Simple Percentage analysis, and
2. Chi-Square analysis,

### **2.4.1 SIMPLE PERCENTAGE ANALYSIS**

Percentage refers to a special kind of ratio in making comparison between two or more data and to describe relationships. Percentage can also be used to compare the relation terms the distribution of two or more sources of data.

$$\text{Percentage of Respondents} = \frac{\text{Number of Respondents}}{\text{Total Respondents}} \times 100$$

### **2.4.2 CHI-SQUARE ANALYSIS**

Chi-square is a non-parametric test of statistical significance for bi variate tabular analysis. A non-parametric test, like chi square, is a rough estimate of confidence.

Chi-square is used most frequently to test the statistical significance of results reported in bivariate tables and interpreting bivariate tables is integral to interpreting the results of a chi-square test.

## CHI - SQUARE TEST METHOD

The Chi - square method is the application of testing the significant difference between observed and expected values.

### STATISTICAL TEST:

$$\text{Chi - square test } (\chi^2) = \sum \frac{(O - E)^2}{E}$$

$$\text{Degree of freedom} = (R - 1) (C - 1)$$

Whereas, O = Observed frequency

E = Expected frequency

R = Number of rows

C = Number of columns

$$\text{Expected Frequency} = \frac{\text{Row Total} \times \text{Column Total}}{\text{Grand Total}}$$

Level of significance ( $\alpha$ )

A value indicating the percentage of sample values that is outside certain limits, assuming the null hypothesis is correct, that is, the probability of rejecting the null hypothesis when it is true.

## *CHAPTER - III*

# *ANALYSIS & INTERPRETATION*

---

**CHAPTER III**  
**DATA ANALYSIS AND INTERPRETATION**

**Simple Percentage Analysis**

**Table No: 1**

**Distribution of Respondents by their Age**

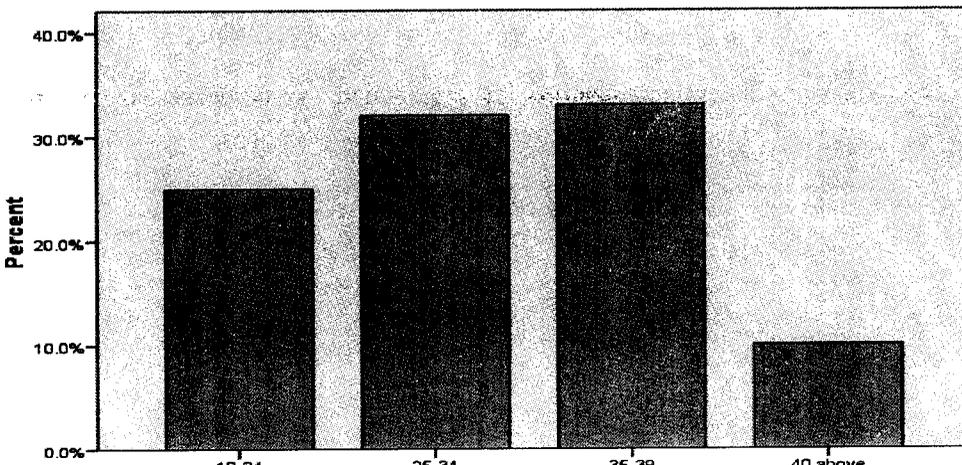
Age	Frequency	Percent	Valid Percent	Cumulative Percent
18-24	25	25.0	25.0	25.0
25-34	32	32.0	32.0	57.0
35-39	33	33.0	33.0	90.0
40 above	10	10.0	10.0	100.0
Total	100	100.0	100.0	

**Inference:**

It is found from the above table 25% of the respondents belongs to the age group of 18 – 24 years, 32% of the respondents belongs to the age group of 25 – 34 years, 33% of the respondents belongs to the age group of 35 – 39, and 10% of the respondents age belongs to the age group of above 40 years.

It is concluded that the majority of the respondents belongs to the age group of 35 – 39 years.

**distribution of respondents by their age**



**Table No: 2**  
**Distribution of Respondents by their Gender**

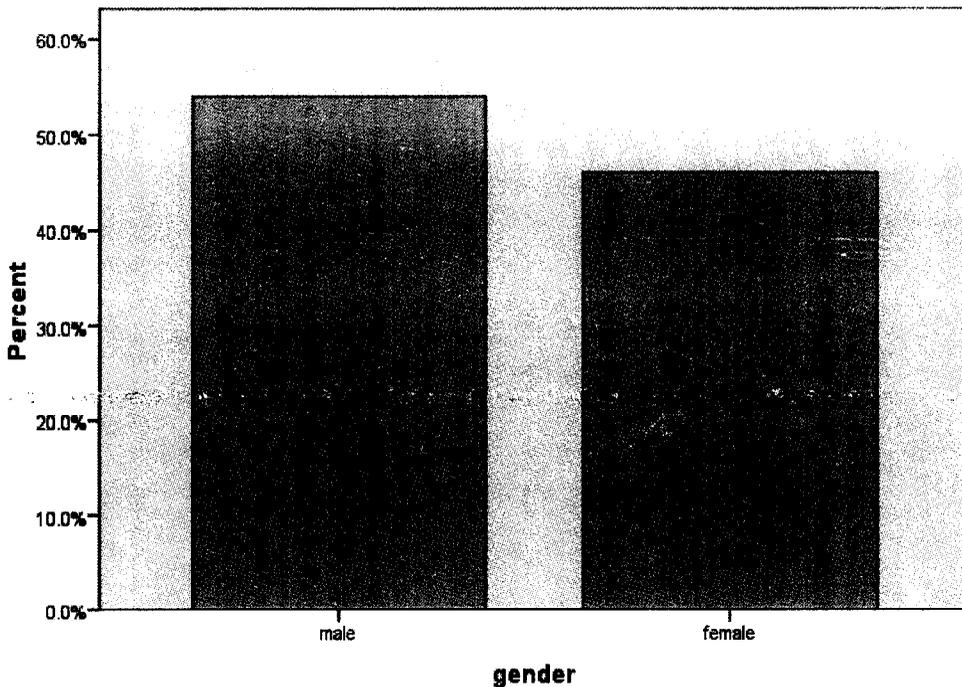
Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	54	54.0	54.0	54.0
Female	46	46.0	46.0	100.0
Total	100	100.0	100.0	

**Inference:**

From the above table it could be inferred that 54% of respondents belongs to male category and the rest of the respondents 46% belongs to female category among 100 respondents.

It is concluded that the majority of the respondents belongs to male category.

**Distribution of respondents by their gender**



**Table No: 3**  
**Distribution of Respondents by their Occupation**

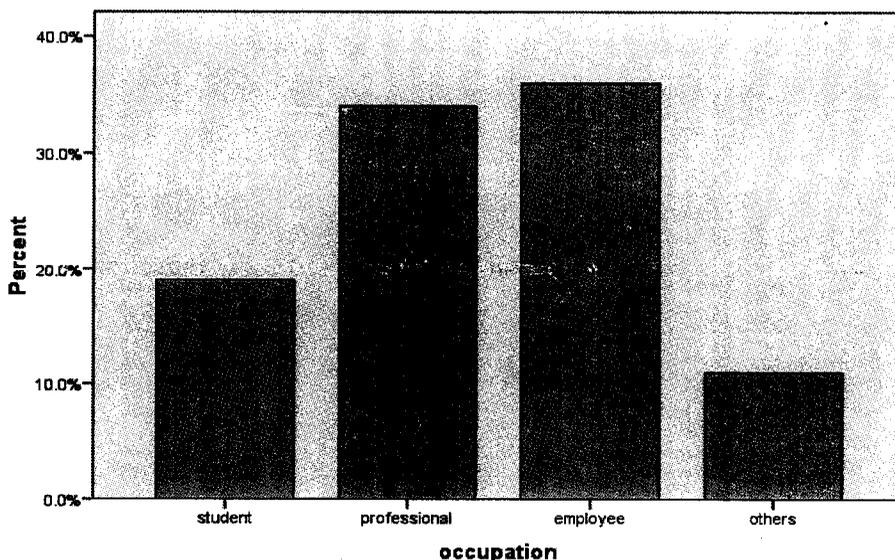
Occupation	Frequency	Percent	Valid Percent	Cumulative Percent
Student	19	19.0	19.0	19.0
Professional	34	34.0	34.0	53.0
Employee	36	36.0	36.0	89.0
Others	11	11.0	11.0	100.0
Total	100	100.0	100.0	

**Inference:**

It is evident from the above table that 36% of the respondents belongs to employees, 34% of the respondents belongs to professional, 19% of the respondents belongs to students, and 11% of the respondents belongs to others. (like businessman etc)

Therefore, from the above table it is clear that the majority of the respondents belongs to employees category.

**Distribution of respondents by their occupation**



**Table No: 4**  
**Distribution of Respondents by their Family Income**

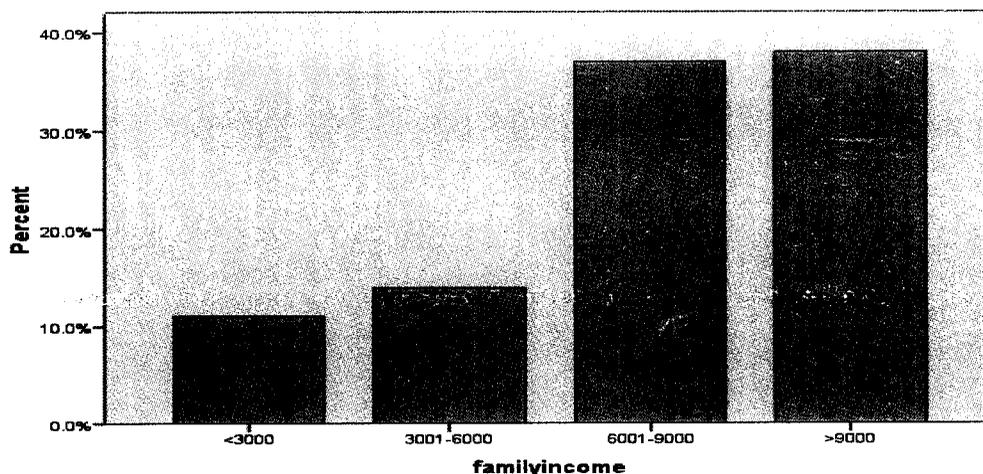
Family Income	Frequency	Percent	Valid Percent	Cumulative Percent
Below 2	11	11.0	11.0	11.0
3001-6000	14	14.0	14.0	25.0
6001-9000	37	37.0	37.0	62.0
Above 9000	38	38.0	38.0	100.0
Total	100	100.0	100.0	

**Inference:**

The above table shows that 38% of the respondents belongs to the income category of Rs.9001 – above, 37% of the respondents belongs to the income category of Rs.6001 – 9000, 14% of the respondents belongs to the income category of Rs.3001-6000 and 11% of the respondents belongs to the income category of Rs2000 - below.

It is thus obvious that 38% of the respondents belongs to the income category of Rs.9001 – above.

**Distribution of respondents by their family income**



**Table No: 5**  
**Distribution of Respondents by their Family Size**

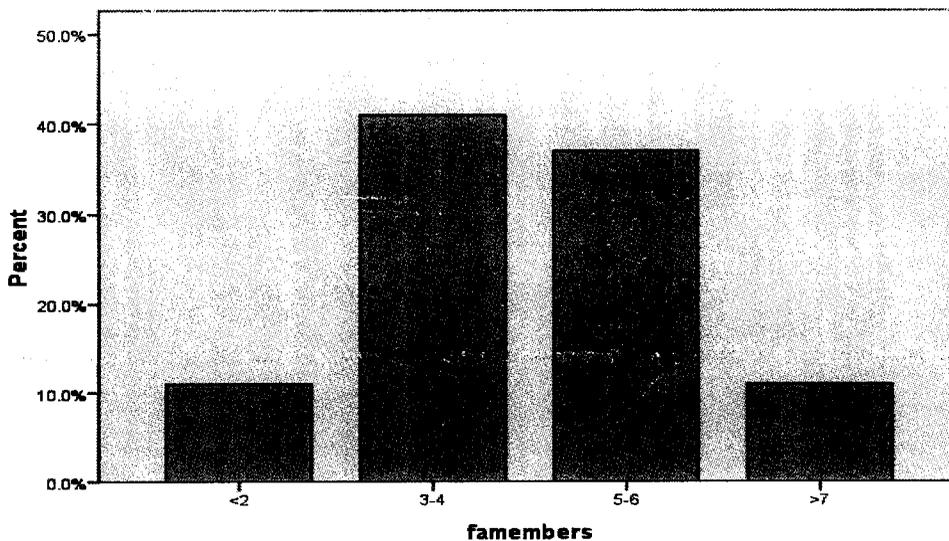
Size of the family	Frequency	Percent	Valid Percent	Cumulative Percent
Below 2	11	11.0	11.0	11.0
3-4	41	41.0	41.0	52.0
5-6	37	37.0	37.0	89.0
Above 7	11	11.0	11.0	100.0
Total	100	100.0	100.0	

**Inference:**

The table shows that 41% of the respondents belongs to 3-4 members of their family, 37% of the respondents belongs to 5-6 members of their family, 11% of the respondents belongs to below-2 members of their family as well as 7-above members of their family.

Thus the majority (41%) of the respondents belongs to 3-4 members of their family.

**Distribution of respondents by their family size**



**Table No: 6**  
**Distribution of Respondents by their Level of**  
**Satisfaction with the Aavin Product**

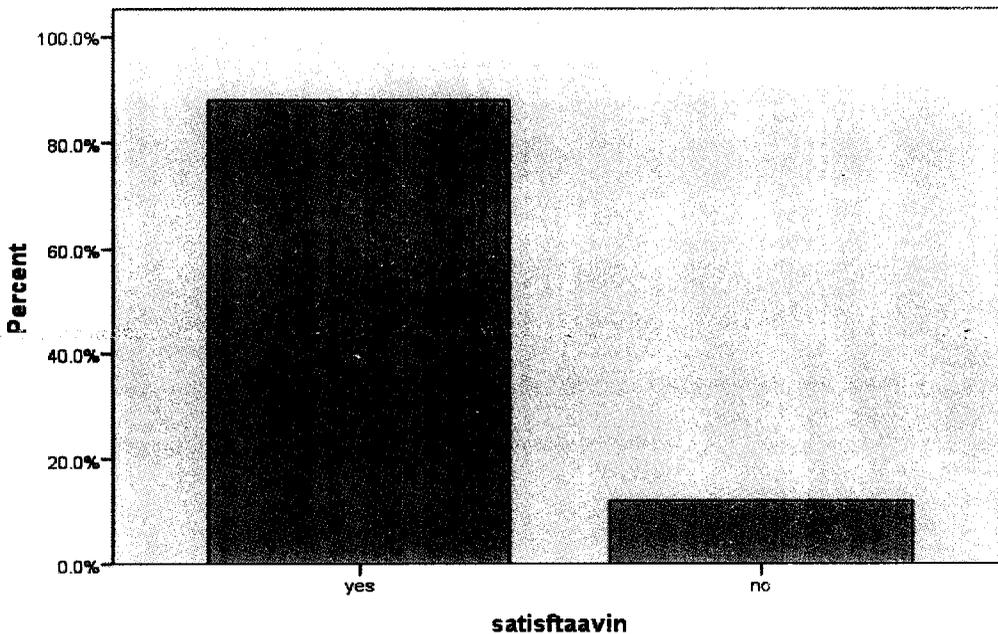
Level of Satisfaction	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	88	88.0	88.0	88.0
No	12	12.0	12.0	100.0
Total	100	100.0	100.0	

**Inference:**

It is found from the above table that 88% of the respondents satisfied with the Aavin product, and 12% of the respondents dissatisfied with the Aavin products.

It is concluded that the majority of respondents satisfied with the Aavin product.

**Distribution of respondents by their level of satisfaction with aavin products**



**Table No: 7**

**Distribution of Respondents by their Opinion about the Customer Services Provided by Aavin**

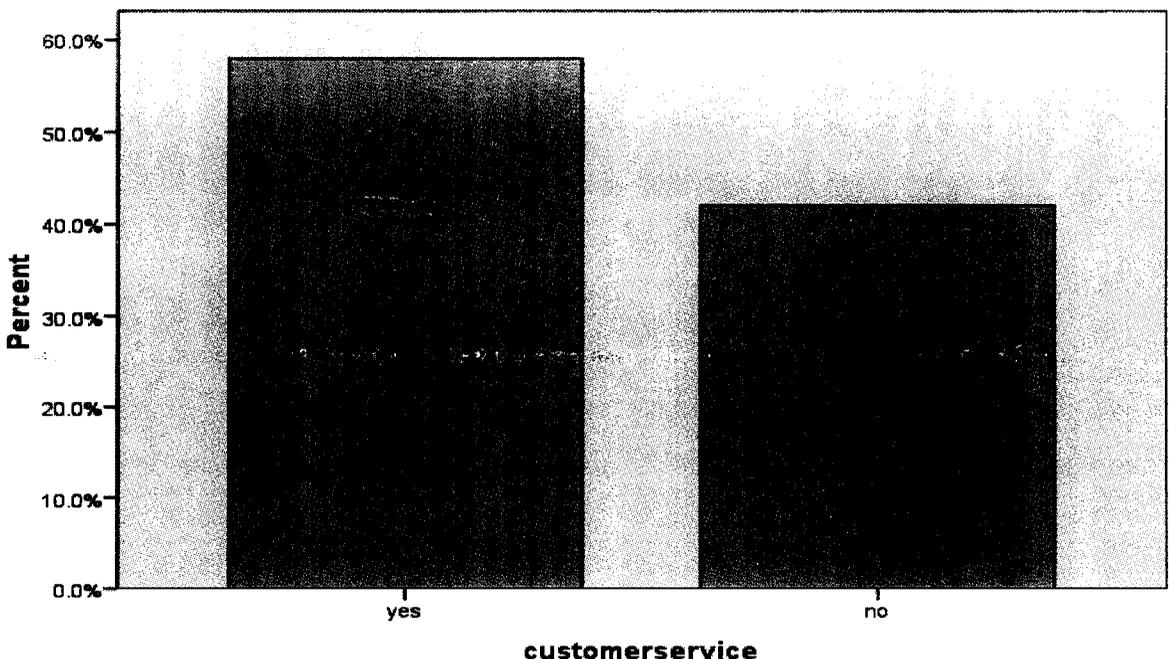
Particulars	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	58	58.0	58.0	58.0
No	42	42.0	42.0	100.0
Total	100	100.0	100.0	

**Inference:**

The above table reveals that 58% of respondents satisfied with customer services provided by Aavin and 42% of the respondents dissatisfied with customer services provided by Aavin.

It is concluded that the majority of respondents satisfied with customer services provided by Aavin.

**Distribution of respondents by their opinion about the customer services provided by aavin**



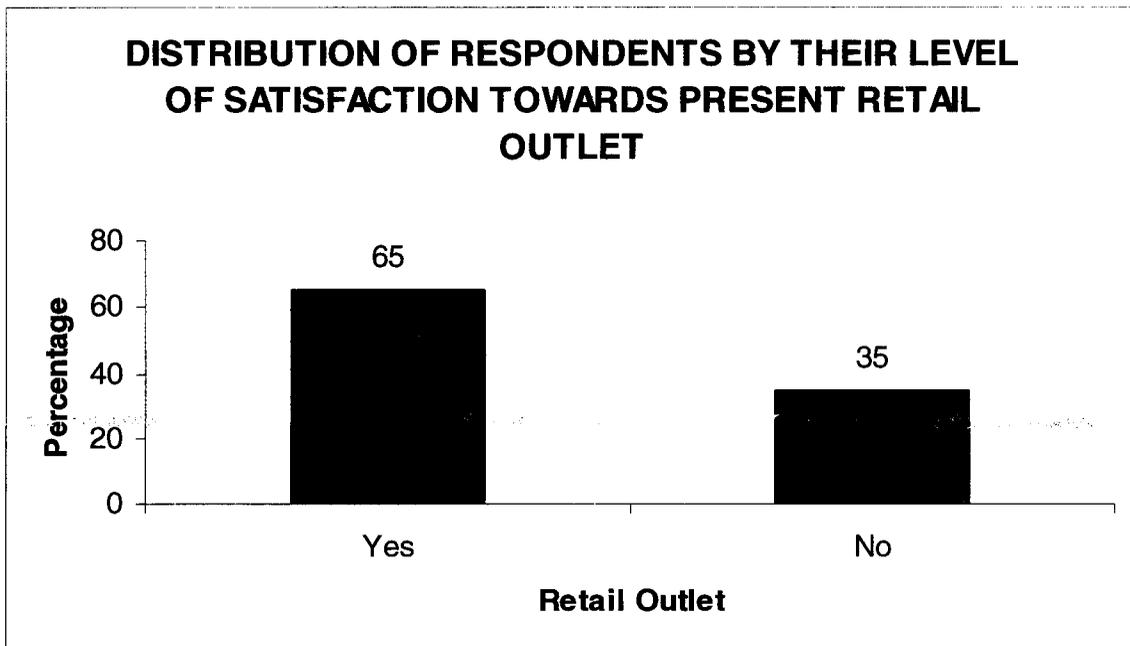
**Table No: 8**  
**Distribution of Respondents by their Level of**  
**Satisfaction towards Present Retail Outlet**

Particulars	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	56	56.0	56.0	56.0
No	44	44.0	44.0	100.0
Total	100	100.0	100.0	

**Inference:**

It is found from the above table that 56% of the respondents satisfied with the present retail outlet of Aavin, and 44% of the respondents dissatisfied with the present retail outlet of Aavin.

It is concluded that the majority of respondents satisfied with the present retail outlet of Aavin.



**Table No: 9**  
**Distribution of Respondents by their Opinion about**  
**the need to make Changes in the Pricing Policy**

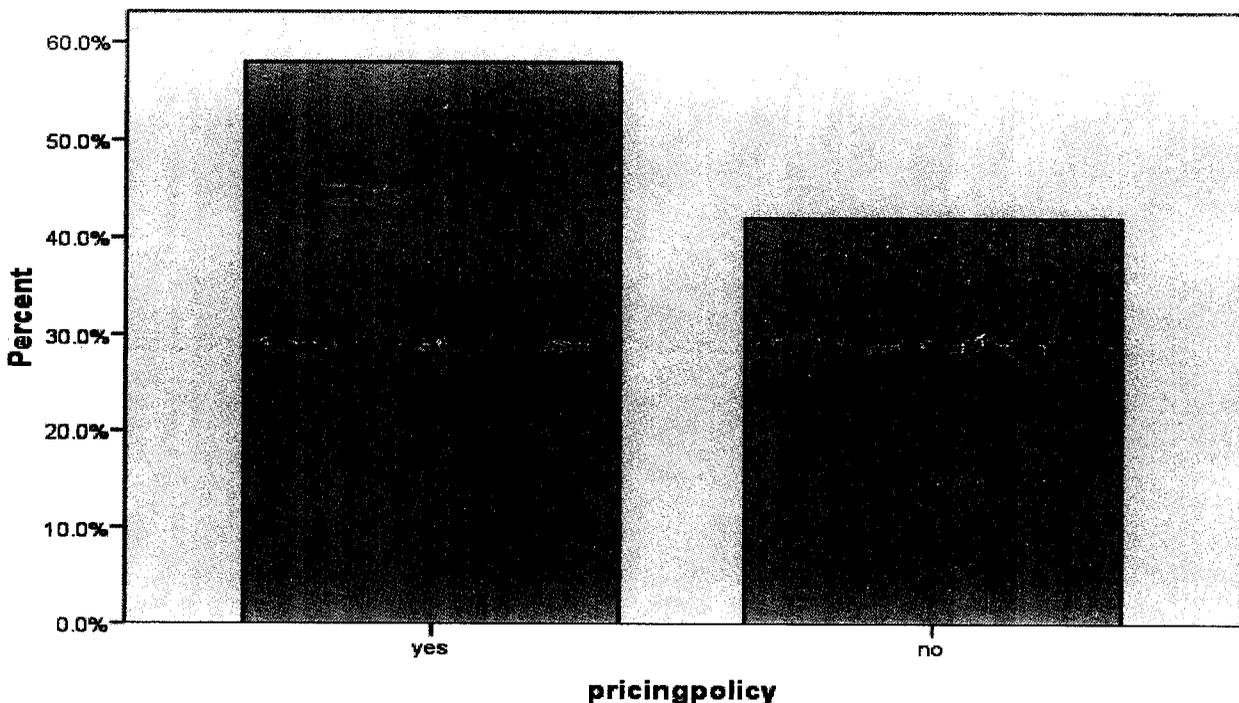
Particulars	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	58	58.0	58.0	58.0
No	42	42.0	42.0	100.0
Total	100	100.0	100.0	

**Inference:**

It is found from the above table that 58% of respondents opined that there was no need to change the pricing policy of Aavin and 42% of the respondents needed changes in the pricing policy of the Aavin.

It is concluded that the majority of the respondents opined that there was no need to change the pricing policy of Aavin.

**Distribution of respondents by their opinion about the need to make in change**  
**in the pricing policy**



**Table No: 10**  
**Distribution of Respondents by their Perception of**  
**Aavin Compared with its Competitors**

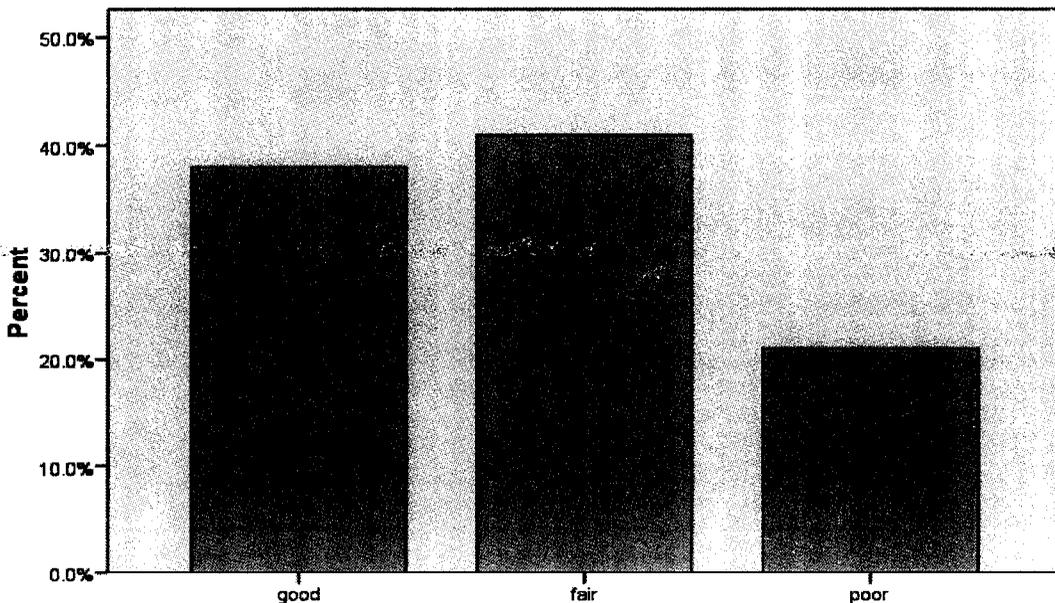
particulars	Frequency	Percent	Valid Percent	Cumulative Percent
Good	38	38.0	38.0	38.0
Fair	41	41.0	41.0	79.0
Poor	21	21.0	21.0	100.0
Total	100	100.0	100.0	

**Inference:**

From the above table it could be inferred that the majority (41%) of the respondents agreed that the position of Aavin was fair, few respondents (38%) agreed that the position of Aavin was good, and 21% of the respondents agreed that position of Aavin is poor.

It is concluded that the majority (41%) of the respondents agreed that the position of Aavin was fair.

**Distribution of respondents by their perception of aavin compared with its competitor**



## CHI - SQUARE TEST

**AIM:** To find out the association between occupation and sales promotion strategies of Aavin Milk Products.

**H0:** There is no significant relationship between occupation and customer satisfaction of Aavin milk products.

**H1:** There is a significant relationship between occupation and customer satisfaction of Aavin milk products.

**Table No: 11**  
**Significance between Occupation and customer satisfaction**  
**of Aavin Milk Products**

S.No	Occupation	Satisfaction Level of Aavin products		
		Satisfied	Dissatisfied	Total
1.	Student	18	1	19
2.	Professtional	30	4	34
3.	Employees	30	6	36
4.	Others	10	1	11
	<b>Total</b>	<b>88</b>	<b>12</b>	<b>100</b>

(Note: The figures given in the parenthesis are observed frequencies)

**Calculated value** : **1.6489**

**Table value** : **7.815**

**Degrees of freedom** : **3**

**Level of significance** : **5%**

### **Inference:**

From the above table it could be inferred that the calculated value (1.6489) is less than the tabulated value (7.815). Hence null hypothesis stands. It is concluded that there is no significant relationship between occupation and customer satisfaction of Aavin Milk Products.

## *CHAPTER - IV*

### *FINDINGS AND INFERENCE*

---

## **CHAPTER IV**

### **FINDINGS AND INFERENCE**

#### **FINDINGS**

- Table 1 shows that the majority of the respondents belongs to the age group of 35-39 years
- Table 2 shows that the majority of the respondents belongs to male category.
- Table 3 shows that the majority of the respondents belongs to employees category.
- Table 4 shows that the majority of the respondents belongs to the income level of Rs.9001-above.
- Table 5 shows that the majority (41%) of the respondents belongs to 3-4 members of their family.
- Table 6 shows that the majority (88%) of respondents satisfied with the Aavin product.
- Table 7 shows that the majority (58%) of respondents satisfied with customer services provided by Aavin.
- Table 8 shows that the majority (56%) of respondents satisfied with the present retail outlet of Aavin.
- Table 9 shows that the majority (58%) of the respondents opined that there was no need to change the pricing policy of Aavin.
- Table 10 shows that the majority (41%) of the respondents agreed that the position of Aavin is fair.
- Table 11 shows that the it could be inferred that the calculated value (1.6489) is less than the tabulated value (7.815). Hence null hypothesis stands. It is concluded that there is no significant relationship between occupation and customer satisfaction of Aavin Milk Products.

*CHAPTER V*

*RECOMMENDATION*



## **CHAPTER V**

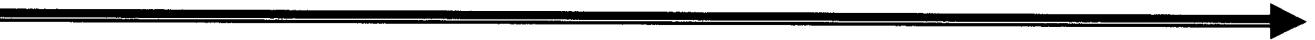
### **RECOMMENDATIONS AND SUGGESTIONS**

#### **SUGGESTION:**

- The concern may pay attention towards all other milk products as like milk such as curd, ghee, sweets and butter.
- The concern may try to publish / telecast some advertisement
- The producers may extend the retail outlets.
- The concern may satisfied the customer by offering gifts, reducing the price etc.,
- The concern should focus their attention towards rural region.
- Aavin website may be updated and popularized.

# *CHAPTER - VI*

*CONCLUSION*



## **VI. CONCLUSION**

Consumers are the real king of the business world. A business concern which obtains the affectionate relations of the consumers can successfully run its business for ever. From the above findings and suggestions, the following conclusion has been arrived at formed. The main purpose of this study is to know the consumer's preference for Aavin Milk Products.

This study concludes that the usages of Aavin Milk Products by the customers are very high. To increase the sales, the concern has to concentrate on price of the products.

The satisfaction level of respondents on Aavin Products has been moderately high and it may be increased. The consumer behavior and satisfaction followed by Aavin are in the satisfactory level. To make it more popularize, the concern has to publish / telecast some advertisement.

# *APPENDICES*



## APPENDIX

1. Name :
2. Age :
- 18 -24       25 – 34       35 - 39       40 and above
3. Gender :
- Male       Female
4. Occupation :
- Student       professional       Employee       others
5. Family Income (in Rs) :
- Below 3000       3001 – 6000  
 6001 – 9000       9000 and above

6. How many members are there in your family?
- Below 2       3 – 4 members       5 – 6 members       7 and above

7. Which is your favorite product in Aavin?  
(Please make a tick mark in the appropriate column)

1.	Milk	
2.	Milk Powder	
3.	Butter	
4.	Ghee	
5.	Other Products	

8. Are you satisfied with the Aavin milk Products?

Yes       No

9. If Yes, what is your level of satisfaction in the following factors?

S.No	Factors	Highly Satisfied	Satisfied	Neither satisfied nor dissatisfied	Dis satisfied	Highly Dissatisfied
1.	Price					
2.	Quality					
3.	Taste					
4.	Package					
5.	Availability					

10. Are you satisfied with the customer services provided by Aavin?

Yes

No

11. Have you satisfied with the present retail outlet of Aavin products?

Yes

No

12. If No, in what factor should be improved for increasing the satisfaction level in retails outlet?

(Please make a tick mark in the appropriate column)

1.	Quality	
2.	Quantity	
3.	Availability	
4.	Price	
5.	Package	

13. Do you think that there is any need to change the pricing policy of aavin?

Yes

No

14. What is your perception of aavin compared with its competitors?

Good

Fair

Poor

15. Any other specific details which you wish to offer for the study?

# *BIBLIOGRAPHY*



## BIBLIOGRAPHY

### Reference Books

- **Donald R Cooper – Pamela S Schindler**, “Business Research Method,” Tata Mc Graw – Hill Publishing Company Ltd., 8<sup>th</sup> edition, 2003.
- **Kazmi S.H.H & Satish K Batra**, “Advertising & Sales Promotion”, Excel Books, Second Edition, 2006.
- **Kothari C.R.**, “Research Methodology”, New age international Prakashan Publishers, Second edition, 2004.
- **Memoria. C.B. and Sathish Memoria**, “Marketing Management”, Ketab Mahal, New Delhi, 1985
- **Philip Kotler**, “Marketing Management”, Prentice Hall of India, New Delhi, 2000
- **Ladhari Riadh**,” International Journal of Hospitality Management”
- **Chen, Pang-Cheng**,” Expert Systems with Applications”, Nov2008
- Dosimetría de Radiaciones Ionizantes, Comisión Nacional de Energía Atómica, Presb. Juan González y Aragón 15, (B1802AYA) Ezeiza, Prov. de Buenos Aires, Argentina.
- **Guo, Ruey-Shan**,” International Journal of Production Research”

### Websites

[www.aavinmilk.com](http://www.aavinmilk.com)

[www.aavinerode.com](http://www.aavinerode.com)

[www.amul.com](http://www.amul.com)

[www.marketingstrategies.org](http://www.marketingstrategies.org)

[www.google.com](http://www.google.com)