# "A STUDY ON CONSUMERS' BUYING BEHAVIOR TOWARDS PROCESSED LIQUID PACKED MILK IN KOLHAPUR CITY, MAHARASHTRA." 

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Tilak Maharashtra Vidyapeeth, Pune
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Subject: Management
Under the Board of Management Studies

By
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Under the Guidance of

Dr. Anil N. Barbole

November 2016

## DECLARATION

I hereby declare that the thesis entitled "A Study On Consumers' Buying Behavior Towards Processed Liquid Packed Milk In Kolhapur City, Maharashtra" Completed and written by me has not previously been formed as the basis for the award of any Degree and other similar title upon me of this or other Vidyapeeth or examining body.

Place: Pune

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## CERTIFICATE

This is to certify that the thesis entitled "A Study On Consumers' Buying Behavior Towards Processed Liquid Packed Milk In Kolhapur City, Maharashtra" which is being submitted herewith for the award of the Degree of Vidyavachaspati (Ph.D.) in Management of Tilak Maharashtra, Pune is the result of original research work completed by Shri. Prashant Bapusaheb Kadam under my supervision and guidance. To the best of my knowledge and belief the work incorporated in this thesis has not formed the basis for the award of any Degree or similar title of this or any other University or examining body upon him.

Place: Solapur
(Dr. Anil N. Barbole)
Date: -11-2016

## PREFACE

Consumer behavior is a field of knowledge that explains and predicts how consumers buy. It has arisen largely in response to the needs of managers of profit and nonprofit organizations and of public policy makers considering the increasing potential of markets. The study of milk consumers assumes importance so as to frame effective marketing strategies. Hence the study titled "a Study On Consumers' Buying Behavior Towards Processed Liquid Packed Milk In Kolhapur City, Maharashtra." has been done with the broad objective to assess the pre-purchase, and post purchase behavior of consumers and to identify the factors influencing their purchase decisions.

In India there is no paucity of text books nor studies that deal with the subject of consumer behaviour, but literature exclusively on milk consumer behavior, especially in the context of Kolhapur region is very limited. The study tries to fill this deficit to some extent. It studies the subject of milk consumer behavior from the view point of milk consumers and lays stress on the pre purchase, purchase and post purchase behavior of consumers. With these objectives in view, this study is an all encompassing to covering the milk marketing in India and a special reference to Kolhapur city, theoretical framework of consumer behavior and the pre purchase, purchase and post purchase behavior of milk consumers for food item and non-food items. This will in turn highlight certain policy implication to marketers or businessmen to frame effective marketing strategies to penetrate their products.

Organization of the study is confined in six chapters. Chapter one deals with introduction of the study. Second chapter deals with theoretical framework of consumer behaviour and review of literature. Third chapter covers details of research methodology covering statement of the problem, objectives, scope, hypothesis, methodology, limitations and significance of the study. A detailed review of literature and profile of dairy industry in India is given in the fourth chapter. The data presentation and analysis part is given in the fifth chapter and sixth chapter presents findings, suggestions and conclusions of the study.

## PRASHANT BAPUSAHEB KADAM

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## LIST OF ABBREVIATIONS

| ARDA | Amul Research and Development Association |
| :---: | :---: |
| BE | Brand Extensions |
| CMR | Customer Managed Relationship |
| CSSR | Federation of India Indian council of Social Research |
| CVM | Customer Value Management |
| DADF | Department of Animal Husbandry, Dairying and Fisheries |
| DCS | Dairy cooperative society |
| DIPP | Department of Industrial Policy and Promotion |
| DMI | Directorate of Marketing and Inspection |
| EIAs | End Implementing Agencies |
| EPS | Extensive problem solving |
| FAO | Food and Agriculture Organisation |
| GCMMF | Gujarat Co-operative Milk Marketing Federation National Cooperative Dairy |
| IBLP | Item-based program |
| IDA | International Development Association |
| LLPD | Lakh liters per day |
| LP's | Loyalty programs |
| LPS | Limited problem solving |
| MLPD | Million Liters per day |
| MMPO | Milk and Milk Products Order |
| NB's | Nation Brand |
| NCDFI | National Cooperative Dairy Federation of India |
| NDDB | National Dairy Development Board |
| NDP I | National Dairy Plan - Phase I |
| OF | Operation Flood |
| RRS | Routionised response behaviour |
| SMP | Skimmed Milk Powder |
| SNF | Solids-not fat |
| SPSS | Statistical Package for the Social Sciences |
| UHT | Ultra high temperature |
| UNDP | United Nations Development Programme |

## CHAPTER - 1

## INTRODUCTION

### 1.1 ORIGIN OF MILK

Milk is considered as a supporting diet for mankind of all ages even in these more seasoned days and from time immemorial. Cow was the principal source of milk in the Vedic period which utilized cow milk as a revered nourishment and the cow was dealt with as "Mother', Nandini, Kamdhenu and so on. "Aaryans" came in India with cows, cattle and horses. They improved dairying in groups as a part of society and it helped the progress. In "Mahabharata", we have the references of "Gawlans" and 'Gopies', who used to work as the dealers of milk and milk items. Master Krishna ${ }^{1}$ was additionally called as "Gopal", which implies the one who tames the dairy animals. From that point forward it is perceived that in our nation, dairying is next only to farming as a source of earnings to the rural society.

There are references to dairy rearing in the Atharvaveda II, 26. It has been mentioned that, cows must be wandered (yeshaam sahachaaram vayu: jujosha, Atharveda II, 26,1) ${ }^{2}$ to ensure healthy breeding and that those animals that have wander might return safely is furthermore demonstrated (ye pashava: para eeyu the iha shrayanthu, Atharvaveda II, 27, 1).

Figure: 1.1 Reference of Milk in Atharva-veda

(Source: http://3.bp.blogspot.com/_atharva-veda.jpg) (Retrieved on Jan.2015)

Figure: 1.2 Reference of Milk in Atharvaveda VI, 59

(Source: http: //www. Athaevaveda.com/-1.gif) (Retrieved on Jan.2015)

Figure: 1.3 Picture of Cow in Bhagavad-gita

(Source: http://www.bhagavad-gita.org/Images/cow-gomatha_vishnu.gif) (Jan.2015)

Milk is a physical mixture of three main constituents i.e. water, fat and solidsnot fat (SNF). Milk is treated as a pale liquid oozing of warm blooded creatures, which is regarded as an essential supplement for the nourishment of new born babies. Milk is also considered as a rich source of different supplements and antibodies which decreases the danger of numerous infections.

It has been recommended to breast feed the new born babies but it is not possible all the time for the mother, in such cases milk plays an important role as a substitute for mother's milk.

The USA, EU, Australia and New Zealand are leading whereas China and Russia are the new entrants in production. Up till now India is unable to make any remarkable growth in the field of export of milk products except Skimmed Milk Powder.

In various social orders of the world, especially the West, individuals continue using the milk of various animals. Milk has for some time been perceived as complete nourishment accessible in nature for the support of health. Milk is the most extraordinary and perfect sustenance nourishment for individual. The progress of a country relies on soundness of individuals. Milk is an incredible origin of protein, calcium, sugars, phosphorus, vitamins and other important ingredients which are elementary for physical and mental step up of human.

India is a major milk producing nation and agriculture is a backbone of economy. Dairy is initial one supplementary business among Indian agriculturist and cows have generally been a fundamental income yielding resource of Indian farmers.

Dairying is a standout amongst the best instruments for supplementing agriculturists in income and producing labor in the rural segment. Live stock stuff essentially includes milk, milk products, egg and meat. In this manner an image of healthy security is found for the country. They give better nourishment and also guarantee access to essential food items through increasing income opportunities and bringing income level up in rural territories.

## Fresh Milk

The buffalo milk is the widely available milk in the country. The composition includes the following nutritional values:

Figure 1.4

## Composition of milk as per the PFA regulation


(Source: Manual of Dairy Processing, NDDB) (Retrieved on Jan.2015)

In India fresh milk availability is in raw form and sold in loose liquid form and efforts are going on to provide germ-free milk across the country.

## Consumer Habits and Practices

The milk consumption in India is much below than the World standards when compared to developed countries. There is also a disparity in consumption because of the huge difference between availability of milk and its transportation cost. In India nearly half proportion of available milk is utilized for liquid milk consumption and processing it to other bi products, where as only a meager portion is utilized for other country products of modern use.

## Market size and growth

The milk market valued at Rs 470 bn with 4 percent per year in volume terms. In India 9 states have additional milk production and 6 states producing 58 percent of the total national production.

### 1.2 MILK - INDIA'S WHILE TRUST ${ }^{3}$

More milk means more health and prosperity. Milk is our best weapon to tackle country need in nourishment. No financial advancement would be significant for India unless, we succeed in agricultural based commercial ventures. Particularly dairy commercial ventures can expand rural income significantly. More milk would
likewise mean better feasibility and economy of scale for the processor and obviously an enhanced accessibility and a moderate price for the purchaser.

There are several factors which are of great importance to dairy industry such as milk collection (collection at the end of farmer should be hygienic), transforming the raw milk in to attractive form by processing it by heat treatment to safeguard the interest of consumers to use it. It is also important that to extend the shelf life of milk by scientific methods. It is said that India can be an unbeatable leader in the dairy field if it adopts technological exchanges and some understanding with international bodies. The liberalization policy really opened the doors to this sector as well.

Figure 1.5
Quality standard of market milk as per the PFA regulation for processors

(Source: Manual of Dairy Processing, NDDB) (Retrieved on Jan.2015)

## Developing Volumes

This great convincing business expanded in urban areas but the procurement has to be done from rural area only. Prompt milk delivery is equally important. The population increase also has an advantage for Indian dairy industry as well. Both the private as well as cooperative players have an equally important role to play. In rural area the TV usage as well as satellite TV usage has increased to great extent within a span of ten years. The literacy and awareness will help grow this business.

Figure 1.6

## Share of milk in food consumption


(Source: Department of animal husbandry \& Dairying Ministry of Agriculture, GoI.) (Jan.2015)

## PRODUCTION PROCESS

Production is creation of goods and services. Real prominence is on making of good. It includes fabricating, mining, farming, finishing, lumbering etc. the production process concerned with the method that is by means of each one of the choice movements, limitations, gearshift, and tactics with input ending in to output.

In this time of relentless business rivalry, quality of the product has got much significance for showcasing which will bring about a boost of benefit. Quality control is one of the vital functions of the production management. The present century needs the goods of most noteworthy quality as great quality is fundamental prerequisite of any item.

A decent quality is one which performs to some standard point; quality touches all circles of business exercises. Buyer dependably needs to buy the item, which is as indicated by these high details. Every organization needs to "act quality, buy quality and sell quality" for their foreordained goals.

## Process System of Milk:

1) Raw material milk $\longrightarrow$ 2) Reception center $\longrightarrow$ 3) Platform test, sampling
and testing $\longrightarrow 4$ ) Weighing $\longrightarrow$ 5) Filtration $\longrightarrow$ 6) Pasteurization $\longrightarrow$
2) Homogenization $\longrightarrow$ 8) Storage $\longrightarrow 9)$ Inspection and Packing

Table 1.1

## Tests for milk

| Reception test | Laboratory test. | Microbiological tests. |
| :---: | :--- | :---: |
| 1) Smell <br> organoleptic test | 1) Temperature: | 1)Ethylene blue <br> reduction test <br> 2) Taste <br> 3) Appearance <br> 2) Lactometer (CRL-Correct <br> Lactometer Reading) |
| 2) Soda test | 3)Standard Plate <br> Count Test (SPC <br> Test) <br> 4) Alcohols test 4) Sugar test |  |
| 5) Acidic test | 5) Urea test |  |
|  | 6) Specific gravity |  |
|  | 7) Fat test: (Gerber method) |  |

(Source: Dairy Science Book, Vol. 5) (Retrieved on Jan.2015)

### 1.3 ENDURING GROWTH OF DAIRY SECTOR

In India because of the developmental activities of GOI dairy co-operative movement under operation flood program has exceeded to great extent. Some other dairy creation plans have brought about expanding milk generation at a normal yearly development rate of 45 percent.

Figure 1.7
India's Milk Production in MIL TN

(Source: Manual of Dairy Processing, NDDB) (Retrieved on Jan.2015)

Figure 1.8
Milk Consumption in Gms

(Source: Manual of Dairy Processing, NDDB) (Retrieved on Jan.2015)
The above figures reveal that there is a noteworthy increase in the milk production and in the milk consumption in terms of grams over the period of time.

Figure 1.9
India's Milk Product Mix

(Source: Asian Journal of Management Sciences 02-03 (Special Issue); 2014; 170-172,

## A milk composition includes:

Protein, Vitamin A, Vitamin B12, Vitamin B6, Riboflavin, Niacin, Thiamine, Pantothenic corrosive, Folate, Vitamin D, Calcium, Magnesium, Phosphorus, Potassium, Zinc, Selenium.

### 1.4 A BRIEF HISTORY OF MILK CONSUMPTION ${ }^{4}$

It is important to study the consumption practices in the past and present. Study traces milk use in the Middle East even before 8000 year. In late $19^{\text {th }}$ century milk consumption became common in the United States and Europe. Cows were main source of supply of milk especially in South Asia and Europe. The need arose to tackle the preservation so as to fulfill the requirements of increasing population.

In European colonies tea, coffee and chocolate was consumed with milk. The working class used to consume it as a cheap source of food for survival. As there was a threat of rotting no purchases were from open market. It was also used as breast milk alternate for infants. Cow sheds were happening to be outside cities. Cows were poorly nourished.

## Sanitization

Louis Pasteur found warming demolishes organisms that actuate maturation. Security encouraged sanitization of milk supply to urban communities in late nineteenth mid twentieth century. Questions about milk as a suitable sustenance, particularly for kids, were surrounded as far as security; it was accepted that milk drinking was the "common" situation. Ensuring a sheltered milk supply was seen as a method for taking care of a portion of the social issues of city life in the nineteenth century. Refrigerated transport permitted more extensive dispersion of purified milk.

Milk elevated as the key to kid development community at first figured out how to regularly use the milk of unlike after taking training from people around. There are references of the milk use even in Neolithic Revolution in 9000-7000 BC in Southwest Asia to $3500-3000 \mathrm{BC}$ in the Americas. The preliminary motto of keeping the animals was for meat purpose and later on it got diverted to milk. There are references of that dairying was cultured in the near the beginning periods of agriculture in Southwest Asia 7000 BC. The references also milk and dairy stuff were usually not a wide part of the eating habit, moreover on the basis that they stay settled
by hunter gatherers and dairying became their habitat of European expansionism in the majority current 500 years.

- 1840s and 1850s- Railroad Milk transportation started in London.
- (1846)- St Thomas' Hospital contracted to supply milk in Southward
- 1860-Milk transport from Maidenhead to London
- 1875- Milk Enactment (Advertising effort for milk)
- 1870- Milk imports in London increased from 5 percent (1860) to 96 percent
- 1870s.- First glass bottle of milk used in London
- 1877- The New York Dairy Company to take such bottle
- 1880- Manufacture of commercial glass bottle for milk by the Express Dairy Company in England.
- 1884- Waxed paper disk was introduced by Hervey Thatcher, (American).
- 1932- Containers with plastic-covered paper milk were introduced commercially.
- 1863- Louis Pasteur, a French physicist and researcher introduced method for killing negative bacteria in food and drink products.
- 1880- Marketable purifying mechanism was delivered in Germany
- 1885- The practice had been embraced in Copenhagen and Stockholm

Proceeded with changes in the effectiveness for the creation of milk prompted an overall overabundance of milk by 2016. Russia and China got to be independent and stopped import. Importing milk is prohibited. During the 2015 the EU systematically stopped financing the dairy support activities. The United States has a deliberate defense plan that pays agriculturists relying on the cost of milk and the expense of feed.

Out of total available milk 85 percent milk was delivered from cows, (2011). Holstein cow was used most widely for reproduction for dairy. Out of total cows the proportion of Holstein in UK was 85 percent and USA was 90 percent. There some other bovines like Jersey, Brown Swiss, Milking Shorthorn (Dairy Shorthorn), and Guernsey in USA.

There are some other species which milch and used for milk like sheep, camel, jackass, goat, bison, yak and reindeer. The first four independently contributed about 11 percent, 2 percent, 1.4 percent and 0.2 percent of all milk worldwide in 2011. Milk
has been a piece of our nourishment and rich in supplements, milk in its different structures has a long history.

### 1.5 MILK AND MILK PRODUCTS CONSUMPTION - DRIVERS OF GROWTH ${ }^{5}$

The aggregate milk utilization (loose and packaged) per individual shifts broadly from highs in Europe and North America to lows in Asia. Notwithstanding, as the different areas of the world turn out to be more incorporated through travel and movement, these patterns are changing, a component which should be considered by item engineers and advertisers of milk and milk items in different nations of the world.

In Europe, the custom of milk utilization has shifted enormously. Consider for instance the high utilization of liquid milk in nations such as Finland, Norway and Sweden contrasted with France and Italy where cheeses have had a tendency to rule milk utilization. When you likewise consider the atmospheres of these regions, doubtlessly the way of life of creating more steady items in more blazing atmospheres as a method for safeguarding is apparent.

### 1.6 STRUCTURE OF INDIAN DAIRY INDUSTRY ${ }^{6}$

## Circulation of surplus milk from towns

It is important that the milching animal's dwell in rural area and milk from cows and buffalos are used in the rural area for local consumption. The surplus milk after consumption then sent to the surrounding urban area for sale. The urban population consumes the remaining milk of the total produce of milk.

The traders buy milk from farmers / milk producers in the rural area and make it available to people in the surrounding area especially urban area as per the family units to serve. The raw milk supplied to urban consumers is without any scientific processes (sanitization). It is essential for the buyers to heat the milk to kill the harmful germs in it before consumption. The milk served by milkman is without any sanitation. These housewives boil even purified milk before utilization. They also sell milk bi products like paneer, curd, cleared up spread, desserts.

## HELPFUL MILK DEVELOPMENT

Because of the lower rate offered for purchasing the milk, the farmers of Kaira went protesting for long period, this was the beginning of the farmer's movement towards collective working to get justifiable rates for the milk production.

The farmer's movement started working in two fold, collection of raw milk at rural area and processing it at their plants. Initially it created the problem of surplus also which compelled to handle the issue at their plants. During the last six decades Kaira Union Model faced the situation of surplus milk for several times. These models consist of town cooperatives, region level unions and state level alliance.

The model enhances a strong relationship with the supplier who is a farmer and supplies the raw milk directly to the union. The pattern is helpful to the societies by and large. The system well set for buying a share and getting bonus every year. At a general meeting of all individuals, agents are chosen to frame an overseeing advisory group to solve the problems on regular basis.

The milk collection is done on the basis of desired standards and the payment to the farmer for the purchased milk is made within a stipulated period of twelve hours. The transportation of milk is done twice in a day. The transportation system is supported with mass coolers also. The collections of milk follows the guidelines to improve the milk to all the suppliers if they wish to achieve to strengthen administrations, to advance enhance their profitability and wage. Smaller scale level feed, veterinary care, artificial inseminations are carried out by town social orders. There was set back to OF -II in 1979-85 and OF-III in 1987-96.

## ADMINISTRATIVE ENVIRONMENT ${ }^{7}$

In India, for the establishment and fostering of any business especially depends upon the central government. As central government is accountable for the establishments, it helps develop the state government by some effective mechanism. If the implementation is effective at various levels with different plan, then it will achieve the progress quickly. The primary initiative for the dairy industry in India taken in 1990s, as a result of liberalization policy release by presenting financial policy changes to support increasing need of privatization. The Indian government was very keen on de-authorizing in 1991 along with end of permit raj.

Need arose to declare the MMPO (Milk and Milk Products Order) in 1992. S.O. 405 (E) dated 09-06-1992 "Act" means the Essential Commodities Act, 1955 (10 of 1955) "business in milk and milk product" means sale or purchase of milk or milk
product and includes manufacturing, processing, handling of milk and milk product; "milk" means milk of cow, buffalo, sheep, goat, or a mixture thereof, either raw or processed in any manner and includes pasteurized, sterilized, recombined, flavoured, acidified, skimmed, toned, double toned, standardized or full cream milk. It requires state enlistment to plants creating between 10,000 to 200,000 liters of milk for every day.

There are several supporting enactments to support the legal framework like food Safety and Standards Act, 2006. The Standards of Weights and Measures Act, particular quality control orders issued under the Essential Commodities Act. Agrarian Products (Grading and Marketing) Act, 1937, by using the law the makers who conform to the standard are permitted to utilize "AGMARK" marks on their items.

## DRIVING BRANDS OF DAIRY ITEMS

Table 1.2
Leading brands of milk and dairy products

| Brand | Area of operation | Brand | Area of operation |
| :---: | :--- | :---: | :--- |
| Amul, Nestlé, <br> Briatnnia, <br> Milkman | All India | Milma | Kerala |
| Mother Dairy | Delhi, North India, <br> East India | Arokya, Avin | Tamil Nadu |
| Verka | Punjab <br> Chandigarh | Mother Dairy, <br> Metro Dairy | West Bengal |
| Nandini | Karnataka | Heritage | South India |
| Aarey | Mumbai <br> Mahanand <br> Maharashtra | Paras, DMS | Delhi |
| Vijaya | Andhra Pradesh | Omfed | Orissa |
| Saras | Rajasthan | Sanchi | Madhya Pradesh |

(Source: HS\&SL, Milk and Dairy Products in India) (Retrieved on Jan.2015)

## Liquid milk market

Liquid Milk is sold after pasteurization with printed label form. The milk is packed in 200/250/500/1000 ml packing. 500 ml packing is the most acceptable
packing form. Near about 65 percent market is constituted by 4.5 percent fat milk. The distribution takes place at retailer points at various places as per demand to sell milk. The schedule of supply at two times daily to face the problem of supply at prominent places. The liquid milk has a low shelf life and can be extended by refrigeration support at retailers point to protect the contents as it is. The transpiration of milk is carried out in insulator milk van specially designed for milk distribution to maintain the temperature. It is advisable for retailers also to maintain the milk stock in to refrigeration system. Nearly 45 percent milk consumption is happening to be in liquid form and 47 percent milk is nothing but conversion into bi products and milk utilization for conversion in to modern dairy product is only 8 percent.

Figure 1.10
Utilization of milk in different dairy products

(Source: Estimates by http://www.indiaagronet.com) (Retrieved on Jan.2015)

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## CHAPTER-2

## CONSUMER BEHAVIOUR: A THEORETICAL FRAMEWORK

### 2.1 INTRODUCTION

Any person engaged in the consumption process is a consumer. These consumers can be identified by the type of markets they belong. The present study is concerned with the final consumers, individuals who buy for personal consumption. The consumer behaviour refers to those action and related activities of persons involved specifically in buying and using economic goods and services. It includes both mental and physical actions. An understanding of the consumer behaviour will help in understanding different market segments and evolve strategies to effect penetration with these markets.

Adam Smith at the end of $18^{\text {th }}$ century wrote consumption is the sole end and purpose of all production and the interest of the producer ought to be attended to only, so far as it may be necessary for promoting that of consumer. ${ }^{1}$ The field of consumer's behaviour really began to develop in the early 1960s, when the Ford foundation commissioned a two years study of the state of knowledge of marketing in American Business School. ${ }^{2}$ Later many theories were developed which viewed consumer behaviour from different angles and the marketers used these theoretical base for studying consumer behaviour and for framing various marketing strategies and programmes based on the interest, attitudes and perception of consumers.

### 2.2 CONSUMER BEHAVIOUR THEORIES

As per the study, the foremost consumer behavior theories can be divided as (a) economic (b) psychological (c) psycho-analytic and (d) socio- cultural.

## Economic Theories

The theory focused monetary estimates of income and the demands of various goods and services. The traditional theory starts with the examination of the conduct of the consumer, given that the market demand is the summation of the demand of individual consumers. Theory also believes that consumer has complete knowledge about available commodities, their prices and income. The consumer must compare the utility of various baskets of products, which he can buy with his income.

The basic economic theories include marginal utility theory, psychological law of consumption, absolute, relative and permanent income hypothesis etc.

Marginal utility hypothesis was created by traditional business analysts. As per them a purchaser will keep on purchasing such items which convey him greatest fulfillment at comparative prices. Financial analysts view that people are rational during every one activities and buying choices are the consequence of monetary figuring. This theory represents consumer buying behaviour and these incorporate law of decreasing small value and rule at Equi-minimal value. According to diminishing marginal utility, a consumer fulfills his needs all together of their desperation and that he intentionally or unwillingly says something his mind the value he needs to pay for the utility of every item he purchases. On account of Law of Equi-marginal Utility, in order to maximize fulfillment, shopper arranges his use in a manner that his marginal utilities structure different items are adjusted through a process of substitution of product or extra value for one having fewer value.

However, the economists only partially accept this theory on the ground that economic factors alone cannot explain variations in sales and decision of purchase by consumers, but it is influenced by many psychological and sociological factors. By virtue of these, business analysts have endeavored to refine it by giving changes and in this way detailed indifference curve analysis and hypothesis of uncovered inclinations.

In the indifference curve analysis, the general consumer decision issue is structured as a relative decision between item choices inside of imperative identified with price, income and the accessible spending plan. Comparable sort of modification of the utility hypotheses has additionally finished by Samuelson in his Revealed preference theory and as a result of Armstrong in his marginal preference theory ${ }^{3}$. Even as the utility approach is micro scale in nature, there are essential macro scale hypotheses too.

## Psychological Theory

The Keynes psychological law is the basis of income theory. It states that when pay increases, consumption also increases, but the in proportion with the income. It also states that, when the total income increases, consumption expenditure also increases, but in a small amount, an increase of income will be divided in between saving and spending, an increase in wage is impracticable to lead either to smaller amount spending or smaller amount of recent saving. Though theory
emphasizes the growth in pay but critics are against because there are several other numerous non salary components which impact consumption expenses on short term basis.

## Economic Theory (Spending Behaviour)

(a) The hypothetical total income, (b) the relative income hypothesis, (c) the hypothesis of permanent income (d) the life cycle hypothesis. All theory can proceed basically in terms of combined general and individual behavior and the behavior of these conditions substantially change the basic concept.

## a) The Absolute Income Hypothesis

Keynes in the General Theory ${ }^{4}$ James Tobin and Arther Smithies ${ }^{5}$ in this hypothesis emphasizes that depending upon the absolute level of income he makes decision to fraction of his current income for individual consumption.

Other things remain as it is, as the fraction of income devoted to consumption decreases as the rise in the absolute income. For the hypothesis it was an impossible task to explain the reconcile of data, therefore faced criticism. Theory was developed for the practical long term trends and practical irregularity.

## b) Relative Income Hypothesis

As per Friedman and Duesenberry ${ }^{6}$ saving rate depends on level of income scale. Hypothesis implies that spending is related to a family's relative position in the income distribution of in the order of similar families. Thus it is not on the absolute level of family's income but on the level of its income relative to the income of neighboring families. It also emphasized that people follow neighbours whenever go for purchases and equally expect a good life standard all the time. The standard of life enjoyed in the past and present income are very important to determine the expenses he is likely to do even for present.

## c) The Permanent Income Hypothesis

Prof. Milton Friedman ${ }^{7}$ enumerated the fundamental link between income and consumption. The relationship here is between permanent consumption and permanent income. He replaced the idea of current income to permanent income. As permanent income hypothesis contends that suitable consumption capability relates permanent utilization to permanent income. The permanent consumption changes as a result of change in permanent income. Theory lays an excessive amount of weight to desires and but all actuality consumption behavior changes every now and again.

## d) Life Cycle Hypothesis or (MBA Approach)

The theoretical model introduced by Albert Ando, Modigliani, and soon after by Branberg ${ }^{8}$. The household is assumed to determine the amount available for consumption over life the beginning of the period plus the present value of its non property income minus present value of planned bequests. It speculates utilization on the basis of wealth and age in short as well as long term. It additionally stresses that utilization capacity entirely relative to aggregate riches. The above financial hypotheses highlight the short term and long term utilization capacity of customers in light of their wealth, savings income, and life cycle.

## Psychological theories

Mental hypotheses (material gain as a matter of fact the person teaching guess) results and experience lies in the way of the future events will change their activities. The significance of brand loyalty and repeat buy makes hypothesis more important that brings stimulus response theories as well as cognitive theories.

Patrons of stimulus response theories incorporate Purlon, Skinner Thorindike and Kotlew ${ }^{9}$. As per them learning happens as a man reacts to a few stimulus and is rewarded by means of need fulfillment for a current response. It demonstrated the majority regular plus recent stimuli are remembered and responded. This methodology formed basis of advertisements. Festinger proposed cognitive theory which helped study simplify purchasing conduct

A consumer's Knowledge, observation, convictions encourage him to buy. Sometimes even after a well planned buy the buyers experience some kind of inconvenience, apprehension. The decision making causes the post selection anxiety "decent" (Fantasy disharmony). The merits and demerits of the products are compared with the alternatives. Such consumers require a promise from the seller that the choice taken is wise one. Despite the fact that the hypothesis was created to clarify a 'post choice' wonder, it is suitable for clarifying pre-choices nervousness too. The commercials and individual offering planned to reduce cognitive dissonance with the buyer.

Gestalt hypothesis, instituted by Christian Von Ehrenfels ${ }^{10}$ saw personality as consequence of collaboration between the person and the total atmosphere and viewed as mutually as an attractive event. The clients attempt to settle their mental field with giving meaning to the surrounding scene. While making market decisions, consumers try to reduce tension and struggle in the middle of environmental perceptions.

## Psycho-analytic theories

Sigmund Freud ${ }^{11}$ hypothesizes three essential dimensions, the id asks an agreeable demonstration, the sense of ego shows the ethical issues included and the super ego goes about as the mediation in figuring out whether to continue or not. It has prompted motivational research and has proved useful in probing consumer behaviour.

## Socio cultural theories

Thorstein veblern (1899) through his veblenian model ${ }^{\mathbf{1 2}}$ affirmed so as to any gentleman is basically a social animal and his needs as well as conduct are to a great extent impacted by the gathering of which he is a part. He argued that individuals tend to fit in a general public despite their own preferences and dislike. Culture, sub culture, social classes', reference groups, family are the diverse variable gatherings that impact consumer behaviour.

All the above theories offer rules to the marketing manager how a consumer carries on in a specific situation along with the variables impact their choices.

### 2.3 CONSUMER DECISION BEHAVIOURAL MODELS

Broad models of include Nicosia model ${ }^{13}$, Howard Seth model ${ }^{14}$, Sheth family decision making ${ }^{\mathbf{1 5}}$, Bettman information processing model and the Seth-New-Gross model ${ }^{16}$.

## Nicosia Model

It focuses on association among the entity and its prospects. It puts forward that both parties try to intermingle each other, as entity pressure consumers and the consumers power the firm through transactions.

Figure 2.1
Nicosia model of consumer decision process


## Howard-Sheth Model

Emphasis on the consumer's learning, critical thinking and reactions were studied under this particular model as under:

Extensive problem solving (EPS) ${ }^{17}$ happens after consumers' knowledge as well as beliefs concerning products constrained exceptionally, consumer effectively looks for data concerning various alternative brands. Limited problem solving (LPS) occur when the buyer not completely ready to assess the brand differences. Routionised response behaviour (RRS) happens when the consumer's beliefs and knowledge about the brand are settled and the customer is inclined toward a specific brand.

The three stages of decision making with Characteristics:

| Stage | Extent of former sources Required for gain | Speeded done |
| :---: | :---: | :---: |
| EPS | Huge | Leisurely |
| LPS | Reasonable | Reasonable |
| RRS | Modest | Rapid |

## Engel Kollat Blackwell Model ${ }^{18}$

There are four stages under which the theoretical framework can be explained as under:

1. Decision process stage
2. Input stage Information)
3. Processing stage (Information)
4. Studying the variable (influencing the decision process)

Information from promoting and non-checking sources feeds into the information handling segment of the model which has its starting impact at the problem recognition phase of choice making process. The consumer will prepare the data which comprises of buyer reaction, consideration, understanding, observation.

## Sheth-family decision making model

This model proposes that, choice making on joint choices has a tendency in working and recently wedded individuals affectionate with only some recommended family parts. Regarding product specific factor, it recommends choice making is
pervasive in circumstances of exceedingly seen risk, in cases of vital in nature and have no time for sufficient choices.

## Bettman's framework

The model proposes that consumer ordinarily adopt easy choice methodologies. It empowers the consumer to touch base at a decision after examination of accessible choices. This framework is helpful stimulating to promote supervisors to outline marketing procedure with new insights of knowledge about his shoppers.

## Sheth-Newman Gross Model

These five utilization values assume a paramount part in making decisions. These qualities might make expounded as practical values, social values, restrictive values, passionate qualities Also epistemic values. Alternately the greater part of the five utilization values might impact those choice. Different controls (counting economics, sociology, an amount about limbs for psychology, advertising Also purchaser behavior) have contributed hypotheses and examination discoveries important should these values, (Sheth et al. 1991).

### 2.4 CONSUMER DECISION PROCESS

Consumer choices are concerned for the most part with how, when, the amount of, structure where, questions problems with the buy of an item/benefit/thoughts. Identification of alternative product, price and factors of selling are the result of prospects search process. The perceived issues include comparing internal and external data before making decision. Accordingly a consumer decision making additionally includes assessment of the option choices i.e., the movement o recognizing elective answers for an issue and deciding the relative benefits of each.

Fig. 2.2

## Consumer decision Making process



### 2.5 DETERMINANTS OF CONSUMER BEHAVIOUR

The decision of prospect is dependent on external as well as internal aspects. It is essential for a marketer to see every one of these variables in order to know with reference to why customer carries on mind is confined and influenced. By examining the vital aspects which are affecting shopper's conduct are of great value to the suitable marketing strategies. The theory broadly classified the determinants into monetary variables, sociological components and behavioral elements. Experts have enumerated the impact of relatives, reference groups, and opinion leaders on the buyer conduct.

## Family:

Consumer researchers uncovered that, each family member has to play a role in decision making. A prominent member can have a strong influence on the decision making of another family member. It is possible that purchaser might have affected with inclinations of alternate individuals with aggregate choice as a result of
consensus among family members. It is important to study that for a marketing person to distinguish these individuals with particular purchasing role.

## Reference Group:

This concept studied by Hyman in $1942^{19}$ so as to depict the kind of group used through a person as a perspective to own judgment. This gathering will influence the level of aspiration and type of conduct, however setting up routine examples of individual use. A comprehension of the perspectives of the target buyers of organization's items is very relevant in defining compelling marketing techniques/programs.

## Opinion leaders:

The idea of supposition initiative rose up out of an examination led by Lazarfeld Berenson and Gandet (1940) ${ }^{\mathbf{2 0}}$. Buyers regularly follow the opinion leaders (feeling pioneers) with a specific end goal to define his/her conduct design. For the marketers it is important to recognize those pioneers who impact others conduct.

## Cultural factors:

Man lives in society and he follows some values learned by its members. The learned values impact on consumer behaviour. In the theory Howard and Sheth ${ }^{21}$ have seen society as particular man cleared a path of reacting to experience, a set of conduct patterns. Social angles go far in molding the Indian buyers by virtue of "Samskar" it develops.

## Social Class and caste:

Not only culture impacts the purchasers but a relatively permanent and ordered decision of individuals offer similar settings. It is controlled by elements such as income, education, occupation, training, wealth and other variables. Caste then again is a gathering with a created by birth. Individuals inside of a given social class tend to display similar purchasing conduct. Research study recommends that the influence the product and store choice. A study revealed that Indian lower class people won't purchase at stores with compared to upper earnings group.
Individual determinants of consumer behavior:
The purchasers choice or customer conduct is impacted by external factors both personal and psychological characters. It is beyond the control of business firms to chase these variables but tune the products by identifying these factors. They are as below:

## Age with life (Style) cycle stage:

In the life time of any consumer, the purchasing pattern and habit changes continuously. There are several elements like garments, fashion, amusement which are decided on the basis of age. Marketers habitually portray their objective business sectors concerning illustration a long way. Similarly as different consumer segments, family life cycle and marketing plans are appropriate to each phase.

## Life Style:

Life style is a person's way of living reflected in values, tastes; spend time and money in consumption choices. Also trade what's more entryway as much alternately his/her qualities and tastes would reflect done usage. Life style is important element of social consumption preferences and position products and services. It is helpful for product preferences and develops different versions of their products for different markets with regional differences

## Personality:

It is a person's unique psychological make-up which responds to his or her environment. The differences in personality traits have not been measured and applied adequately to consumption contexts, therefore marketing strategies have met with only limited success. Freudian psychology helped understand differences in small samples of consumers by employing sampling technique. Some researchers studied objectively in large samples using sophisticated quantitative techniques.

## Self:

It is a self attitude (positive or negative) toward them. It controls product choices for self esteem or self reward. Any product decision is a result of comparison between his personality and product characteristics. Products will be picked when their characteristics harmonize a few parts of the self. It depends upon consumer's mental self view and product properties. It is observed that, in the purchase of beer and cleanser with respect slightest favored items of their choice and also consumers' self image and their most loved stores. Therefore every marketer has to comprehend the self concept and possession relation of the product.

## Psychological factors (Mental components):

The elements are explained as below:

## Motivation:

The mental hypotheses of Sigmund Freud and Abraham Maslow ${ }^{22}$ concentrate to state that there is numerous variables influence motivation. Initially inspiration has
a tendency to be more noteworthy, when consumers consider something to buy significant. Different things are seen as important in light of the fact that, they identify need and value, as they are seen to involve significant on the grounds that they are conflicting with former dispositions. Notwithstanding when inspiration to do as such is high, if purchasers do not have the learning, background, or ready money to engage in the buying process can't make a deal.

## Perception:

Meaningful picture of the world is drawn only after interpretation of the selected and organised information. The process may vary for each individual and may be result also differ from one another.

As a result of the process attention, distortion and retention of the information, any individual take different meanings of the stimuli. For example a layman can watch the advertisement throughout the day and may not be able to make his mind but another person who is exposed to the advertisement flow for a while also can make his mind. Therefore companies are trying very intelligently to grab the customer mind to create impression in the manifesto of the prospect. It is noted that prospects have a habit of compare information on selective distortion. Further, prospect keeps the information in the manifesto through selective retention. In view of the specific introduction, contortion and maintenance advertisers need to be very alert.

## Learning:

Learning enables to identify the buyer conduct on purchase of any specific product of his preference. It follows the sequence as per various scholars have studied it as motives to means. Learning brings about changes in to buying conduct of the buyer at any place of purchase with any item of his/ her choice. The focus of marketers learning assumptions is to develop a strong desire to buy the product of his choice. The ultimate result should be a strong positive feedback about the product.

## Beliefs:

Prospects don't have any doubt related to certain sure stuff and administration. They get hold of this from beginning to end along with learning. Passion is an easy-to-read so-called that a man has about something. Taking in to consideration this point of view, it is the belief which controls the buying of specific products. If some of the purchases are prevented by wrong belief then the marketers have to launch a corrective campaign.

## Attitudes (Dispositions):

It is nothing but a man's reliably ideal towards nature and tendency to reliably evaluate the example of a man or adverse. Dispositions are hard to change. A man's attitude might in shape keen on a man and to alter might require difficult adjustments. In this manner an organization should attempt to fit into existing states of mind as opposed to endeavors to change an organization should attempt to fit into existing demeanors instead of endeavors to changes dispositions.

Experts speak out that cognitive dissonance theory, self perception theory and balance theory stress the vital role of the need for consistency. As multifaceted nature of attitude as seem as underlined by various colours of mind model in which an arrangement of convictions and assessment is recognized and joined to foresee a general attitude. Variables, for example, subjective standards and specificity of state of mind scales to enhance consistency. The buyer conduct is important about advertisers contemplate every single segment in a person.

It can be rational to observe various factors that influence consumer conduct. The consumer decisions re-perceive structure of perplexing interaction of community work force and mental variables. Albeit a considerable lot of these components can't be impacted, valuable and identified, and speaks about catering buyer needs in the best possible way.

### 2.6 INTERNATIONAL CONSUMER BEHAVIOUR

Consumer conduct might change every once in a while, even nation to nation. Notwithstanding for the organizations working within the boundaries of a nation feels it hard to comprehend purchaser conduct. It is a fact that organizations in various nations might have something in like manner, their way of life, qualities, approach and recognitions are distinctive. Here the distinctions are clear and steadier. Social contrasts are likewise vital over the borders. The way of life differs as far as their product performance. The organizations ensure that their business sector plans and programmes ought to ready to get together the exclusive culture and requirements of customers. From this viewpoint, they need to standardize products and make simpler operation and exploit economies of scale and then again, adopting marketing efforts inside every nation results better products and programmes to fulfill the customer requirements. The marketer has to adopt either a standardized strategy or localized strategy.

Numerous societies of these nations have turned out to be homogenized to the point that the same methodology will work all through the world. A few organizations effectively marketed the worldwide products. The defenders of localized strategy support scholastic viewpoint, which concentrates on variables inside of society. They contend that every nation has a national character a particular arrangement of conduct and identity qualities. A successful strategy must be customized to the sensibilities and requirements of every particular society. For instance, the word Soyance referred as lavish cleanser in France ${ }^{23}$. To put it plainly, marketers who manage buyer conduct crosswise over worldwide borders confront certain extra difficulties of attitudes require a unique programs for accomplishment in global markets.

### 2.7 THE MOVEMENT OF CONSUMERISM

Customers are concerned about the survival of his business and, depending on its development. In any case, however buyer is one to experience the ill effects of intense lack of key products. Lack in weight and estimation, misleading administrations are embraced by dealers of both public and private areas.

Mr. John F.Kennedy ${ }^{24}$, the then President of USA was the person behind to submit a claim to the stimulus bill and international consumer development. Consumerism is a sorted out development of residents and regime to fortify the constitutional rights of consumers in connection to sellers.

When displeased consumers began to voice their grievances against corrupt sellers and producers of merchandise and services. The authoritative procedures in India began in 1930 (insurance) and amended in 2002.

Consumerism incorporates in India those propelling course of action for activities for government, benefits of the business undertakings. Purchaser improvement may be a social also fiscal development, which tries should secure the hobbies of the customer against unfair trade practices.

It has been verified that, the purchaser enactments is coming about protecting consumer rights. Numerous arrangement creators now surrender that greater part of the enactments were gone with policy makers of real buyer conduct and consumer legislation require study into habits and disposition.

Numerous buyers wish to be a vibrant, yet real interest had all the earmarks of being constrained frequently in light of the fact that shoppers feel that the pioneers of buyer development are distant into their necessities. Today the merchants, so as to
stay in contact with the changing purchaser environment, give components to willful customer data (objections, supplements, and data) notwithstanding requesting info through showcasing research. However there are signs that such information is exceptionally skewed, in light of the fact that it is the informed and who exploit organizations outreach projects and who take an interest in a few guideline making methods.

In this section researcher has quickly explored the different hypothetical methodologies towards the investigation of consumer behaviour. It is seen that the early establishments of shopper conduct was in financial matters. After the Second World War purchaser conduct approaches turn out to be more down to earth set. In these down to earth approaches sociological mental and conduct speculations and methodologies rule. An examination study on shopper conduct can be endeavored either frame a hypothetical financial analysts edge on 'showcasing practically speaking' point. In this study the subsequent approach is taken after. In the down to earth approach comprehensively the buyers are separated into provincial shoppers and urban buyers and their conduct is assessed at three stages, pre-buy, buy and post buys.

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## CHAPTER-3

## RESEARCH METHODOLOGY

Since logical enquiry depends on the systematized group of learning, along these lines choice and selection of a proper experimental procedure is a fundamental part of leading an exploration examination, since it adds to clarity, exactness unwavering quality and legitimacy of discoveries identifying with exploration issue. In perspective of the above foundation this section has been wanted to clarify the testing arrangement and different expository devices were utilized to accomplish the particular goals of the present study.

### 3.1 NEED

A consumer is one who takes decision about purchase after extensive physical activities and evaluating the products and services. Consumption is the soul and the purpose of all production activities. So Peter Drucker ${ }^{1}$ was apt in saying, 'consumer is he who determines what business you are in.' It is not an easy job to study consumer behavior because it reflects the totality of consumer's decisions with respect to acquisition, consumption and disposition of goods and services. Today all marketing activities are customer driven. But task can be simplified by studying consumer conduct to design programs to serve him as per need.

Studying the buyer purchasing conduct is an extremely complex procedure, as it includes the monetary components as well as the emotional variables. Customer purchasing conduct is impacted by the way of life and subculture. Habits, likes and aversions of the general population having a place with a specific culture and subculture can influence the promoting activities of a firm. The social class, reference groups and family, individual variables like age, life cycle and occupation, motivation, perception and attitude play a vital role. Consumer buying behaviour is widely arranged into three types; Extensive problem solving purchasing is shown when a consumer purchases high involvement, costly and less frequently bought products, Routine problem decision making, they buy routine, less effort goods, Variety Seeking Behavior is seen when they buy low involvement goods. In the legal framework study follows defining the product, process and type of milk under study as per the MMPO (Milk and Milk Products Order) in 1992. S.O. 405 (E) dated 09-061992 "Act" means the Essential Commodities Act, 1955 (10 of 1955) "business in milk and milk product" means sale or purchase of milk or milk product and includes
manufacturing, processing, handling or controlling of milk and milk product; "milk" means milk of cow and buffalo or a mixture thereof processed in any manner and includes pasteurized, sterilized, recombined skimmed, toned, double toned, standardized or full cream milk. It requires state enlistment to plants creating between 10,000 to $2,00,000$ liters of milk for every day. Keeping with this observation, the present study was planned with unique reference to Dairy Industry and carried out to look at the Consumers' Buying behavior with reference to processed liquid pouched milk in Kolhapur city, Maharashtra.

### 3.2 STATEMENT OF PROBLEM:

The consumer had larger options when there are a number of firms marketing pouched milk products. Therefore, a study on consumer behaviour to understand buying behaviour and preferences was important. Understanding the consumer conduct would help the organizations in framing strategies to take in to account the consumer necessities and thereby increase their share. Particularly in a changing situation the buyer taste and inclination were found to change quickly. In view of the significance of consumer behaviour, the title of the study "A study on consumers' Buying behaviour towards processed liquid packed milk in Kolhapur city, Maharashtra, was undertaken with the following objectives.

### 3.3 OBJECTIVES

1. To ascertain the awareness of consumers towards branded processed milk pouch packets.
2. To study the purchase behavior of processed milk pouch packets.
3. To evaluate brand preferences of the consumers.
4. To study the factors influencing brand preference.(Purchase decision)
5. To evaluate alternative purchase plans of the consumers
6. To study the demographic profile of consumers
7. To study monthly expenditure on food items
8. To study quantity of milk consumed
9. To study consumers' awareness towards expiry date, MRP, adulteration laws related to consumer protection.
10. To study sources of information for various milk brands marketed in Kolhapur city.
11. To study the type of milk preferred.

### 3.4 SCOPE OF THE STUDY

Consumption pattern as it is vast subject and market also being vast in size and diverse in culture the study limit its scope to the market of Kolhapur city only in view of the limitations of the individual researcher. As the consumption basket of people includes wide range of variety of products. The present study limits its scope to selected commodity processed milk packet. The study concentrates on a period year 2013-15. The study in particularly was centered at the Consumer behaviour on milk packets.

### 3.5 METHODOLOGY OF THE STUDY:

The methodology used for the study can be compressed as under. It depicts the rationale behind the choice of city; test household, product, period and so forth. The ultimate purpose of the study was served by adopting following steps:
I) Description of study area (Universe)
II) Sampling design
III) Data collection
IV) Data Analysis

## I) Description of Study Area

Kolhapur city is the fastest developing urban areas in the state along Pune and Mumbai. It acquires 20 square kilometers area. The general populace is diverse with religious, social, religious and financial foundation. Due to the presence of different populace gatherings; it serves as a perfect place for launching new products. In view of the fact that, the city offers a perfect setting to consider the behaviour of consumer towards milk products, the present study was undertaken in this city.

Kolhapur city is situated on the banks of Panchganga in Maharashtra. It has a very famous pilgrim center of the temple of the Hindu goddess mother Mahalaxmi. According to the 2011 census $^{2}$ there are 5, 61, 84inhabitants in Kolhapur.

## Profile of Kolhapur District:

Kolhapur is located in the compelling southern piece of Maharashtra state. It lies between $15^{0} 43^{1}$ and $17^{0} 17^{1}$ North scope and $74^{0} 40^{1}$ and $74^{0} 42^{1}$ East longitudes. It is encompassed by Sangli toward the south and Ratnagiri and Sindhudurg toward the west. The region is $7685 \mathrm{sq} . \mathrm{km}$, which is around 2.50 percent of aggregate state. As regards population is a concerned Kolhapur rank $24^{\text {th }}$ within 33 districts in the state. ${ }^{3}$ The climate of Kolhapur is a general temperature. The ordinary yearly rainfall
in those areas vacillates by and large from around 600 mm on Shirol Tahsil in the east on 6000 mm over Bavada Tahsil in the west. City of Kolhapur situated at a height of 569 meters which is higher than that of Pune. Some of the nearby towns are: Kagal which is 17 Km away, Ichalkaranji which is 20 Km away, Sangli and Miraj which are 50 Km and 45 Km respectively away from the city. Kolhapur's atmosphere is having a most extreme temperatures, November to February is the period to experience the winter. The winter temperatures are somewhat higher contrasted with different urban areas in Maharashtra, for example, Pune and Nasik. It ranges to $9^{\circ} \mathrm{C}$ to $16^{\circ} \mathrm{C}$ (lows), and $26^{\circ} \mathrm{C}$ to $32^{\circ} \mathrm{C}$ (highs).

The city Kolhapur is one of the most seasoned urban areas in the nation and the regional home office. It is the capital of the previous royal state and one of the chief towns e.g. Maharashtra. It is around 394 KMs from Mumbai. As a religion focus, it is known as the 'South Kashi'. The old sanctuary of Mahalaxmi being the vacation destinations and Goddess Mahalaxmi or Ambabai is the divinity of Kolhapur ${ }^{4}$. The Shivaji University has an area of $66-8$ sq.kms. It is 1872 feet, certainty high from ocean level. It is on the south bank of Panchganga River. The atmosphere of the city is moderate. The normal rainfall of the city recorded is 40-50 inches. The city is encompassed by the scope of renowned slopes Panhala and Jyotiba, Rankala reservoir toward the south-east of the city. It is full of panoramic view and chronicled places. Like old-royal residence, New castle, Town hall, Shalini royal residence, Brahmeshwar sanctuary, Radha Krishna mandir etc.

Maharashtra is one of the propeller states in the nation to the extent commercial enterprises are concerned. Kolhapur is one of the mechanically propelled areas of the state. Nearness of railroad track, Better Street joins, better base for industrialization, continuous force supply promptly accessible crude material, talented labor and so on assume a superior part in the improvement of industry. These are numerous large, medium and small scale commercial enterprises in the district, mostly in Kolhapur and Ichalkaranji belt.

A special feature of these commercial ventures is that the majority of the proprietors, who are talented specialists and started this conveys as enlisted laborer in neighborhood workshop. The Shahu maharaja of Kolhapur set up a repair workshop for the support of his essential vehicles. This set down to the starting point of building industry in Kolhapur. He additionally settled one specialized school to prepare some
nearby persons. As a part of the secured employment outside the region, others began small workshops of their own inside the area mostly in Kolhapur.

## Mechanical Development

Maharashtra Industrial advancement Corporation (MIDC) has improvement around 546.14 hectors of area in Shiroli and Gokul Shirgaon towns. In this district there are 16 large and 27 medium scale industries. There are 7,858 enrolled SSI's in the region. The large scale enterprises include textile, sugar, chemicals, automobile, oil engine, steel casting, Gokul milk, and western milk etc. The small scale commercial enterprises incorporate leather, cotton yarn, and so forth. Kolhapur saaz a celebrated gold plated silver decorating ornament is produced in Hupari. The business has recorded a yearly turnover of ten crores. Kolhapur chappals are one of the attributes of the region. The leather business has been regularized in Kolhapur by Leather Board. The chappals fabricated under this board are sent not only in India but abroad also.

It is said that "Mhadaba Mistry" was one of the founder members of the Shivaji Udyamanagar, Shri. Karanjikar and Shri. O. P. Powar is a portion of the imperative element identities in the historical backdrop of modern improvement of the city.

The Kolhapur is one of the most improved areas regarding the expansion in industrial facilities in the region. ( 51.04 percent) has been substantially more than the state (31-82 percent).The chief exports of the area are rice, sugar, chili powder, tobacco, gur (Jaggary), clothes, and oil engines. Kolhapur locale is known for its cooperative movement. There are around 11 co-operative sugar factories in the region. This region is invested with building stones, bauxite, gypsum, iron and copper. These materials have a business sector everywhere throughout the state.

There is one five star MIDC at $\mathrm{Kagal}^{5}$ as well as mechanical bequest Udyamanagar inside the city. Kolhapur is popular as a visitor place as well as is a standout amongst the most imperative spots for foundry organizations. There are sand fling foundries. To the extent educational facility is concerned Kolhapur district is a standout amongst the most developed districts. Medical and engineering colleges are situated in Kolhapur city. It is one of the forefront cities in India in the field of art education, culture, and music, sports, agriculture and cinema industry. All these suggest that Kolhapur city ought to be a reasonable indication of improvement. It is hence however that Kolhapur gives a perfect circumstance to the study. The
accompanying dispassion is worried with the profile of research household units chosen from Kolhapur.

Kolhapur was considered as the principal of the Marathi film industry. Great identities like Bhalaji Pendharkar, Baburao Painter and V. Shantaram began their career from Kolhapur.

## Railroad and Street

Kolhapur railway connectivity is accessible and is connected to various prominent cities of India. Even the road facility is also connected with Mumbai toward by National Highway No 4.

## Education

The famous Shivaji University built up in 1962; it caters to the need of the students in the vicinity. At present around 2 lakh students studying in 225 affiliated schools and perceived organizations.

## Sports

Kolhapur is highly praised for Wrestling, shooting, and swimming, National level Carting and body building. As of late FIFA has endorsed Shahu Stadium for getting turf.

## Food

The city is famous for the Mirchi, Gul and Masala.

## Selection of the City

Selection of city wherein the study would lead was an essential step in research process. In Maharashtra, Mumbai, Pune, Nagpur, Aurangabad, Amravati, Nasik, Thane, Kolhapur are the urban communities with civil organization, Out of these Mumbai, Pune Aurangabad and Nagpur are, a evaluation urban communities and the ways of life of individuals in these urban areas is fairly quick changing other four urban communities are B grade urban communities where change are occurring in the utilization design because of introduction to various media. Kolhapur city being the researcher worked at and known to him and other cities are far from it, the city Kolhapur is chosen by virtue of advantageous part of researcher.

The populace in Kolhapur basically comprises of government worker's, experts and business. They are the sort of individuals who is our general public are destined to set patterns is fashions and tastes of day to day life. Kolhapur being a modern city with more literate and cultured people, its respondents is required to be
perfect respondent for a top to bottom study which is proposed to be attempted here. Consequently the study comprises of the buyers living in the city, Kolhapur.

It has been additionally acknowledged by social researchers and accentuated by Indian board of Social Research (ICSSR) that, the formulation reached through macro level studies are not extremely important from the perspective point of strategy choices such studies lead to clearing aggregative speculations. In this way particular area based studies are required to give more important and important information.

## II) Sampling Design:

A) Sampling Method (Techniques):

The sampling method was Cluster Sampling. The populace was partitioned into gatherings called groups and drawn a specimen of bunches to speak to the populace. In this the number of inhabitants in Kolhapur City was circulated into various first stage examining units (Clusters-Wards). Each of these chose test units (wards) were further subdivided into the sub portions (second stage sampling). This technique is typically utilized as a part of large scale population surveys.

The benefits are: more adaptable, extremely supportive in numerous large scale overviews where the arrangements of the units in populace are troublesome and also tedious and costly. At all phases there is somewhat risk of human prejudice. This technique is exceptionally appropriate for large scale studies.
Table 3.1 Details of wards in Kolhapur city used for cluster sampling:

| Cluster | Name of Ward | Ward Number | Number of <br> Samples |
| :---: | :---: | :---: | :---: |
| W 1 | Raman Mala | 5 | 50 |
| W 2 | Bhosalewadi/Kadamwadi | 7 | 50 |
| W 3 | Nagala Park | 9 | 50 |
| W 4 | Market yard | 15 | 50 |
| W 5 | Shahupuri / <br> KumbharVasahat / <br> BagalChowk | 33 | 50 |
| W 6 | BinduChowk | 45 | 50 |
| W 7 | Yadavnagar | 55 | 50 |
| W 8 | Sagar Mal | 59 | 50 |
| W 9 | Shahu Bank/ shingoshi <br> market | 63 | 50 |
| W 10 | Rajendranagar | 77 | 50 |
| Total | 10 | $\mathbf{1 0}$ | $\mathbf{5 0 0}$ |

## B) Sample Size:

The total samples from the selected area of 10 wards (out of 77 wards) ${ }^{6}$ in Kolhapur city was 500 respondents. All the 500 sample consumers selected on random basis and 50 from each ward.

## III) Data Collection

To think about the objectives, required information was gathered from primary and secondary sources.

## A) Primary Data

The information from respondents was gathered with the help of pre-organized survey. The advantages of these methodologies incorporate lavishness of information and more profound understanding into the marvels under study. Essential information gathered has been through meeting and surveys to target samples on the basis questionnaire and observing the socio-economic, living and working parts of the example behavioral pattern. The information additionally gathered through conversation with samples and specialists from this field. The information pertaining to the study was collected from respondents at purchase points and even at homes. The study information consisted of:
Part I: General data like name, age, gender, education, occupation, food habits, family income and family type, Month to month use on nourishment things as a general and milk items specifically.
Part II : Specific data incorporates the data with respect to purchase behaviour, components impacting the buy of milk and milk bi products, brand awareness, sources of information for brand awareness, frequency of purchase, nature of purchase decision, place of purchase, influencers of purchase decision, brand preference, factors influencing to prefer specific brand and purchase plan of consumers.
B) Secondary Data

Optional information incorporates articles in different magazines and diaries, yearly reports of Govt. of India. Different sources utilized for gathering information were downloaded from organizations' sites, daily paper reports, specialized and exchange diary, books, and magazines. The auxiliary sources like distributions of Registrar, Census of India, NDDB, New Delhi, and Mahanand site, Dairy advancement office, Kolhapur and Internet. The auxiliary information on area, demography was gathered from District Statistical Office, Kolhapur, Kolhapur Municipal Corporation and distributed sources.

## IV) Data Analysis and Interpretation:

Information was gathered as topped off surveys; the following steps were to process it. There are following steps after doing analysis of information:

1. Data Processing and 2. Tools of Analysis
1) Data Processing:

When the information was gathered by survey, the following steps are coding data and entering information to computer for getting essential output. The researcher has utilized measurable packages like Statistical Package for the Social Sciences (SPSS, version 2.1) vital for overseeing information produced by a field survey.

Coding: Coding alludes to the procedure of collection and allotting numeric codes to the different reactions to a specific inquiry. The coding procedure: Three stages during the time spent coding reactions in this examination have been considered:
b. Posting Responses: At this stage rundown of the real reactions to every inquiry was set up on a different sheet.
c. Arranging Responses: As it was said above, in view of the kind of scale the reactions were sorted with a specific end goal to allot numeric codes to every classification.
d. Setting codes: After arranging reactions, the following stride was doling out numeric codes to every class. Five point Likert scale; Numerical codes were utilized for individual components.

## 2) Tools of Analysis

The data have been presented through tables, diagrams and figures and simple statistical techniques of analysis i.e. averages, percentage method, pie chart have been applied.

### 3.6 HYPOTHESES

$\mathrm{H}_{1}$ : At least one of the independent variable (Brand image, Price, Taste, Quality, Advertisements, Packaging design, Friends, Labeling, Offers, Freshness, Retailers Influence and Availability of range products) is not a significant predictor of purchase decision of a milk brand.
$\mathrm{H1}_{1}$ : At least one of the independent variable (Brand image, Price, Taste, Quality, Advertisements, Packaging design, Friends, Labeling, Offers, Freshness, Retailers Influence, and Availability of range products) is a significant predictor of purchase decision of a milk brand.
$\mathrm{HO}_{2}$ : There is no relationship between Age and quantity of milk bought per day.
$\mathrm{H1}_{2}$ : There is a significant relationship between Age and quantity of milk bought per day.
$\mathrm{H}_{3}$ : There is no relationship between Gender and quantity of milk bought per day.
$\mathrm{H1}_{3}$ : There is a significant relationship between Gender and quantity of milk bought per day.
$\mathrm{HO}_{4}$ : There is no relationship between Monthly income and quantity of milk bought per day.
$\mathrm{H1}_{4}$ : There is a significant relationship between Monthly income and quantity of milk bought per day.
$\mathrm{H}_{5}$ : There is no relationship between Type of family and quantity of milk bought per day.
$\mathrm{H}_{5}$ : There is a significant relationship between Type of family and quantity of milk bought per day.
$\mathrm{H}_{6}$ : There is no relationship between Age and Pack size of milk bought per day.
$\mathrm{H} 1_{6}$ : There is a significant relationship between Age and Pack size of milk bought per day.
$\mathrm{H}_{7}$ : Proportion of consumers buying high fat milk is not equal to 80 percent ( $\mathrm{p}=$ 80\%).
$\mathrm{H1}_{7}$ : Proportion of consumers buying high fat milk is equal to 80 percent $(\mathrm{p}=80 \%)$.
$\mathrm{H}_{8}$ : There is no relationship between brand preference and availability of brand.
$\mathrm{H} 1_{8}$ : There is a significant relationship between brand preference and availability of brand.

### 3.7 HYPOTHESIS TESTING PLAN

Statistical software for the Social Sciences (SPSS), Version 2.1 was used $^{7}$ for the analysis and interpretation of the data along with testing of hypothesis the SPSS software was used.

| Hypothesis | Statistical Tools Used |
| :--- | :--- |
| Hypothesis 1 | Multiple regression Analysis using backward method. |
| Hypothesis 2 | Chi-Square test of Contingency |
| Hypothesis 3 | Chi-Square test of Contingency |
| Hypothesis 4 | Chi-Square test of Contingency |
| Hypothesis 5 | Chi-Square test of Contingency |
| Hypothesis 6 | Chi-Square test of Contingency |
| Hypothesis 7 | One sample Z -test |
| Hypothesis 8 | Nominal by interval Eta test |

## Statistical Techniques

A brief description of the various statistical techniques being used for the present study is as follows:

## 1) Mean

To find out the average of the production and responses etc. mean have been used. It is worked out as under:
$\mathrm{X}=\frac{\sum x 2}{N}$

## 2) Standard Deviation

Standard deviation is advanced to exchange measures of its unit in scientifically speaking to the variability which is exceptionally urgent for translating and investigation the factual information. It is worked out as under:

Speaking of flexibility, which is crucial for exceptional and scientifically factual information translated standard deviation, is the senior investigating alternative measures of the unit. It is working as follows:

$$
\begin{aligned}
& ð \stackrel{1}{4} \propto \\
& \partial=\sqrt{\sum_{N} x^{2}} \\
& \partial=\text { Standard Deviation } \\
& \mathrm{x}=\mathrm{X}-\mathrm{x} \\
& \mathrm{~N}=\text { Number of observation }
\end{aligned}
$$

## 3) Skewness

The coefficient of skewness has been utilized as a part of contemplating the centralization of reactions of the respondents either on the lower side or on the higher side of the mean score as for their conclusion on various proclamations. It has been computed with the assistance of taking after equation.

SKp $=\frac{X-Z}{\partial}$
Where,
$\mathrm{SKp}=$ Kari Pearson's coefficient of skewness.
X = Mean
Z $=$ Mode
$\partial=$ Standard deviation

## 4) Kurtosis

In measurements, kurtosis alludes to the level of evenness or peakedness in the area about the method of a recurrence bend. The estimation of kurtosis lets us know the degree to which dispersion is more crested then the typical bend, it is called leptokurtic. On the off chance that a bend is called level bested then the ordinary bend, it is called platykurtic, the typical itself is known as mesokuritc.

$$
y 2=B-3
$$

For normal distribution y2 $=0$
If y 2 is positive, the curve is leptokurtic and if y 2 is negative, the curve is platykurtic.

## 5) Chi-Square (x2) Test

Chi-Square test is a non-parametric test which was initially utilized by Kari Pearson as a part of the year 1900. Chi-Square test was connected amongst little and expansive circumstance. The amount x 2 portrays the size of the inconsistency amongst hypothesis and perception. It is characterized as:

$$
\mathrm{X}^{2}=\sum \frac{(O-E)}{E}
$$

### 3.8 LIMITATIONS OF THE STUDY

This study depended on essential information gathered from test customers by overview strategy. Every study conducted with pre-structured questionnaire face a problem because respondents may not deliberately report their true preferences. The responses are not free from recall bias as they are subject to memory and experience. The result may cause pertinent contract as regards discoveries are concern on account of study area i.e. Kolhapur city only. Researcher tried to minimize this error by conducting interviews personally and spending a lot of time on establishing rapport with the respondents. Yet there is no foolproof way of obviating (x) the possibility of an error creeping in here and there.

This study covers the branded processed milk pouches only. Generally they are branded as per MMPO 1992 act and limited to this product only. This study is mainly concerned with consumption pattern which is just a part of consumer behavior. To solve the puzzle of buyer behavior is very complex. The behavior depends upon the needs and needs goes on changing. In some cases he can't pause to find out cause and effect relationship. More we study the purchaser more mind boggling he shows up. No hypothesis of purchaser conduct has composed all
inclusive acknowledgment as a complete manual for purchaser's basic leadership process. Hence the study is challenging as we have to predict the unpredictable 'Buyers' having explained the methodological framework of the study.

### 3.9 SIGNIFICANCE OF THE STUDY

In India increasing competition has made the market place more complex and varied. When the consumers are exposed to the reality they face problems. Study revealed that, 17 percent Indian consumers have been or cheated or faced scam at somewhere and 75 percent suffered a "Bad Buying" practice. Consumers are helpless to unfair or misleading selling practices and probably to fraud, for a series of reasons like their buying behaviors, attitudes and levels of knowledge._It is a well-known fact that, most of the profits that a company earns are from a very small segment of its customer base. Retaining this base requires huge amount of efforts from the company in terms of services, benefits etc. especially in the case of the milk industry, the problem of customer retention is huge.

### 3.10 SCHEME OF THE STUDY

The plan of the study comprises of six sections. Chapter one deals with Introduction of the study Second Chapter gives the theoretical framework of consumer behaviour. Third chapter deals with need, statement of the problem, objectives, scope, methodology, hypothesis, limitations and significance of the study. A review of literature and overview of Indian milk sector is given in the fourth Chapter. The fifth chapter covered the data presentation with analysis and hypotheses part and final (sixth) Chapter presents findings, Suggestions, Summary, Contribution of the researcher and future strategies and conclusion of the study.

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## CHAPTER-4

## REVIEW OF LITERATURE AND PROFILE OF DAIRY INDUSTRY IN INDIA

### 4.1 REVIEW OF LITERATURE

In this chapter, research work done in the past regarding awareness, purchase behaviour, brand preference, factors influencing brand preference and alternative purchase plans has been reviewed and presented under the following sub-headings.
4.1.1 Awareness of consumers towards branded products
4.1.2 Purchase behaviour of consumers
4.1.3 Brand preference
4.1.4 Factors influencing brand preference
4.1.5 Alternative purchase plans

### 4.1.1 AWARENESS OF CONSUMERS TOWARDS BRANDED PRODUCTS:

Aaker (2000) ${ }^{1}$ opined that, brand awareness was remarkably durable and sustainable asset. It provides a sense of familiarity especially in low- involvement products such as soaps, a sense of presence or commitment and substance and it was very important to recall at the time of purchasing process. Apart from the conventional mass media, there were other effective means to create awareness viz., event promotions, publicity, sampling and other attention getting approaches.

Brown et al. (2000) ${ }^{2}$ suggested that food preferences are often of a 'fast food' type and consequently the food habits of many young consumers may fuel the consumption of poorly nutritionally balanced meals. While young consumers were aware of healthy eating, their food preference behaviour did not always appear to reflect such knowledge, particularly within the school and social environments.

Beverland (2001) ${ }^{3}$ studied the level of brand awareness using the data collected, suggested that the level of brand awareness for ZESPRI is low among consumers. It is indicated that brand awareness could be increased through a relationship- making programme involving targeted marketing and supply chain management.

Chen (2001) ${ }^{4}$ expressed a different thought on brand awareness that it was a necessary asset but not sufficient for building strong brand equity. In this view, a brand could be well known because it had bad quality.

Yee and Young (2001) ${ }^{5}$ aimed to create awareness of high fat content of pies, studied consumer and producer awareness about nutrition labeling on packaging. The study was successful at raising consumer awareness about the high fat content of pies and influencing the food environment with a greater availability of lower fat pies.

Nandagopal and Chinnaiyan (2003) ${ }^{6}$ studied that, the level of awareness among the rural consumers about the brand of soft drinks was high which was indicated by the mode of purchase of the soft drinks by "Brand Name". The major source of brand awareness was word of mouth followed by advertisements, family members, relatives and friends.

Ramasamy et al. (2005) ${ }^{7}$ reported that, the buying behaviour is vastly influenced by awareness and attitude towards the product. Commercial advertisements over television was said to be the most important source of information, followed by displays in retail outlets. Consumers do build opinion about a brand on the basis of which various product features play an important role in decision making process.

### 4.1.2 PURCHASE BEHAVIOUR OF CONSUMERS:

Balaji (1985) ${ }^{8}$ studied fish consumption in Vishakhapatnam city, the study revealed that majority of respondents consumed fish for dinner followed by lunch. Only meager percentage of respondents did not consume fish on festival days

Jorin (1987) ${ }^{9}$ examined changes in spending power and buying habits of Swiss consumers since the beginning of the $20^{\text {th }}$ century and in the more recent past. Current trends include greater emphasis on health and safety of foodstuffs and less attention to price, increased demand for low calorie light products and increased demand for organically grown foods.

Puri and Sanghera (1989) ${ }^{10}$ directed a study related to prepared items in Chandigarh. Most famous was Jam, most extreme and high was Orange squash utilization and families used to post pone the purchase for an increase in the salary.

Rees (1992) ${ }^{11}$ revealed that, factors influencing the consumer's choice of food were flavour, texture, appearance, advertising, a reduction in traditional cooking, fragmentation of family means and an increase in 'snacking' etc. Vigorous sale of
chilled and other prepared foods was related to the large numbers of working wives and single individuals, who require value convenience. Consumers were responding to messages about safety and healthy eating. They were concerned about the way in which food was produced and want safe, 'natural', high quality food at an appropriate price.

Results of the study conducted by Joshi (1993) ${ }^{12}$ in Dharwad on food purchasing habits and consumer awareness among urban housewives indicated that majority of the urban respondents purchased the groceries like cereals ( 52.00 percent), pulses ( 64.00 percent), oils ( 73.00 percent), spices ( 72.00 percent) and sugar ( 69.00 percent) on monthly basis. While perishables like fruits ( 48.00 percent), eggs (41.00 percent) and meat ( 46.00 percent) were purchased once in week and milk ( 48.00 percent) was purchased daily.

Ragavan (1994) ${ }^{13}$ reported that, quality, regular availability, price, accuracy in weighing and billing, range of vegetables and accessibility as the factors in the order of importance which had influenced purchase of vegetables by respondents from modern retail outlet.

Dhillon et al. (1995) ${ }^{14}$ while studying the purchase behaviour in Ludhiana, rural and urban respondents ranked nearby market (mean score of 1.47 for rural and 2.10 for urban) and main market (mean score of 0.88 for rural and 1.38 for urban) as their first and second preference of order respectively for the purchase of food items. The prime factor indicated by the rural respondents for buying their food items was appearance with mean score of 4.01 , followed by price, quality and place of buying to which they ranked second, third and fourth with mean scores of $3.81,3.45$ and 2.96 respectively. But urban respondents visualized these factors little differently and ranked quality, appearance, place of buying and expiry date as first, second, third and fourth ranks with mean score of 4.69, 4.01, 3.20 and 3.05 respectively.

Singh et al. (1995) ${ }^{15}$ examined the factors influencing consumer preferences for milk. They were milk quality, convenience, availability, and supply in quantity desired, flavour, colour, freshness and mode of payment which showed higher levels of consumer satisfaction.

Sundar (1997) ${ }^{16}$ revealed that, grocery department of Saravana Bava Cooperative Supermarket, Cuddalore was enjoying favorable images of consumers in the attributes, such as, equality of price, behaviour of sales persons, moving space,
location, correctness of weight, packaging of goods, number of sales persons and convenient shopping hours.

Amitha (1998) ${ }^{17}$ studied the factors influencing the consumption of selected dairy products in Bangalore city. The results of the study revealed that, income and price significantly influenced the consumption of table butter. Price had a negative impact and income a positive impact on consumption.

A socio-economic influence of rural consumer behaviour studied by Sayulu and Reddy (1998) ${ }^{\mathbf{1 8}}$, inferred that frequency of purchase of commodities by rural consumers was highly influenced by the type and nature of the products. Products like groceries ( 40.35 percent) and others which included vegetables, milk etc. (48.25 percent) purchased on daily basis and 33.33 percent and 42.98 percent of them purchased these products on weekly basis. Price of the goods was considered to be the most important factor by more than 88.00 percent of the respondents followed by easy availability ( 66.66 percent) and neighbours ( 54.00 percent).

Kamalaveni and Nirmala (2000) ${ }^{19}$ reported that, there is complete agreement between ranking given by the housewives and working women regarding the reasons promoting them to buy Instant Food Products. Age, occupation, education, family size and annual income had much influence on the per capita expenditure of the Instant Food Products.

Srinivasan (2000) ${ }^{\mathbf{2 0}}$ revealed that, consumer with higher educational level was found to consume more processed products. The quantities of processed fruit and vegetable products were consumed more in high income group. Consumers preferred processed products because of convenience of ready-to-eat form.

Hugar et al. (2001) ${ }^{\mathbf{2 1}}$ carried out a study on dynamics of consumer behaviour in vegetable marketing in Dharwad city. Low income groups purchased lesser quantity ( $3.25 \mathrm{~kg} /$ week) of vegetables as compared to medium ( $5.40 \mathrm{~kg} /$ week ) and high income groups ( $4.66 \mathrm{~kg} /$ week). Majority of low income group preferred to purchase vegetables from producers because of reasonable price. High and medium income families preferred stall vendors for the purchase of vegetables because of better quality and correct weighment.

Prell et al. (2002) ${ }^{22}$ conducted a study to examine the factors influencing adolescents' fish consumption in school. Fish consumption was assessed by observation on 4 occasions. Attitudes towards the fish, friends' behaviour and perceived control were important predictors of the intention to eat fish and barriers for
fish consumption were a negative attitude towards both smell and accompaniments and fear of finding bones. But the eaters of fish were more satisfied with the taste, texture and appearance of the fish and rated safety significantly higher than those who resisted.

Nagaraja (2004) ${ }^{23}$ opined that, buying behaviour is very much influenced by experience of their own and of neighbour consumers and his family. Consumers were influenced by touch and feel aspect of any promotional activity.

Shivkumar (2004) ${ }^{24}$ showed that, the consumer, irrespective of income groups, was mainly influenced by the opinions of their family members to purchase. Consumers were also influenced by the dealers' recommendation, followed by advertisement.

Thanulingam and Kochadai (1989) ${ }^{25}$ while studying the awareness of consumers towards food products, drugs, cosmetic and certain services like banking services, life insurance etc. found that consumers make purchase decisions before buying food items. They look for the label on food products, demand product information at the time of purchase and give importance to trademarks and quality.

Kulkarni and Murali (1996) ${ }^{26}$ in their study on purchasing practices of consumers of Parbhani town observed that majority of the household's purchases were done by husband alone followed by husband and wife jointly. Most of the consumers preferred quality of the goods. While purchasing adopted cash payment method and brought the goods from retail shops.

Yadav (1998) ${ }^{27}$ opined that the choice for purchasing vegetables for family utilization is overwhelmed by wife, affected by the preferences and abhorrence of the relatives and by the impact of electronic media on the kids.

Vikas Saraf (2003) ${ }^{\mathbf{2 8}}$ in his study opined that brands are successful because the people prefer them to ordinary products. In addition to the psychological factors, brands give consumers the means whereby they can make choice and judgments. Customers can then rely on chosen brands to guarantee standard quality and services. People believe that the brand itself is something that changes consumer behaviour.

### 4.1.3 BRAND PREFERENCE:

Gluckman (1986) ${ }^{\mathbf{2 9}}$ studied the factors influencing consumption and preference for wine. The explicit factors identified were, the familiarity with brand name, the price of wine, quality or the mouth feel of the liquid, taste with regard to its sweetness or dryness and the suitability for all tastes. Some of the implicit factors
identified through extensive questioning were colour and appearance. Most of the consumers seemed to prefer white wine to red. Consumers preferred French or German made wines to Spanish or Yugoslavian wines.

Kumar et al. (1987) ${ }^{30}$ observed the factors influencing the buying decision making of 200 respondents for various food products. Country of origin and brand of the products was cross- tabulated against age, gender and income. Results revealed that the considered factors were independent of age, education and income. The brand image seemed to be more important than the origin of the product, since the consumers were attracted by the brands.

Shanmugsundaram (1990) ${ }^{\mathbf{3 1}}$ studied about soft drink preference in Vellore town of North Arcot district in Tamil Nadu. The study revealed that, the most preferred soft drink among respondents as Gold spot ( 26.00 percent), followed by Limca ( 24.80 percent). It was found that the taste was the main factor for preference of particular brand and among the media; television played a vital role in influencing consumer to go for a particular brand. Because of convenience in carrying, tetra pack was most preferred one.

Ali (1992) ${ }^{32}$ studied the brand loyalty and switching pattern of processed fruit and vegetable products in Bangalore city by using Markov Chain analysis. The result of study revealed that Kissan brand of jam and Maggi brand of ketchup had a maximum brand loyalty among consumers and less amount of brand switching occurred for these brands.

Hans et al. (1996) ${ }^{33}$ revealed that, the brand switching of consumer was based on variety seeking behaviour, motivations, curiosity and price motive.

Veena (1996) ${ }^{34}$ studied brand switching and brand loyalty of processed fruit and vegetable products in Karnataka state by using Markov Chain analysis. The result of the study revealed that Maggi, Sil and Kissan were having market retention of 74.20, 55.78 and 48.74 percent, respectively for jam products.

Padmanabhan (1999) ${ }^{35}$ conducted study on brand loyalty, which revealed that the price of the preferred brand, efficiency of the preferred brand and influence of advertisement significantly influenced the brand loyalty. Only when the price of a particular brand is comparatively low, the farmers would naturally prefer to low priced brand. Otherwise farmers would naturally continue to purchase the same brand.

Low and Lamb Jr. (2000) ${ }^{36}$ came out with an interesting conclusion that, well known brands tend to exhibit multi-dimensional brand associations, consistent
with the idea that consumers have more developed memory structures for more familiar brands. Consumers might be willing to expend more energy in processing information regarding familiar brands compared to unfamiliar brands.

Kamenidou (2002) ${ }^{37}$ presented the findings on the purchasing and consumption behaviour of Greek households towards three processed peach products: canned peaches in syrup, juice and peach jam. Reasons for such purchase were satisfactory taste and qualities and household's perception that they were healthy products. The results also indicated that the consumption quantities were considered low, while households usually purchased the same brand name, meaning that there was a tendency for brand loyalty.

Sampathkumar (2003) ${ }^{\mathbf{3 8}}$ studied about brand preference in soft drinks in Telangana region of Andhra Pradesh. He found that in rural market about 37.50 percent of consumers preferred Thumbs-Up (urban 30 percent), followed by Coca cola ( 28.50 percent) (urban 37.50 percent), Pepsi 12.50 percent (urban 9.00 percent), Limca ( 4.00 percent) (urban 8.50 percent). Most of the urban consumers ( 67.00 percent) purchased soft drinks in nearest Kirana stores (rural 73.00 percent), followed by super bazaar ( 27.00 percent) (rural 26.00 percent) and others ( 6.00 percent) (rural 1.00 percent). The method of physical distribution played very vital role in company's success and failure in the market. Transportation was among the major functions of physical distribution. Transport adds time and place utility for the product.

Kim-Hyunah et al. (2005) ${ }^{\mathbf{3 9}}$ analyzed the relationship among brand equity factors (brand awareness, brand image, brand preference and brand loyalty) and suggested a strategy for brand management in contract food service management companies. He concluded that brand awareness has positive effect on brand image and brand preference and recommended that the contract food service companies should focus on improving brand awareness as a brand strategy.

Narang (2006) ${ }^{40}$ opined that, a buyer does not stick to one brand in case of food purchasing. They should be able recall different brand names when they go for purchase. Repetitive advertising can be used to promote brand recall. The product should be associated with style and trend, so that it appeals to the youth and the brand name should be developed as a fashion statement. Promotional schemes such as discounts and free offers with purchase were suggested to increase rates.

Philip Kotler (1995) ${ }^{41}$ opined that, all the models so far developed by various scientists should be used in an integrated manner in order to understand the consumer
in general. In his opinion, buying patterns are being influenced by price, quality, availability, service, style, option and image. Depending on the product involved, different variables and behavioural mechanisms assume different degrees of importance in influencing the purchase decision process.

Ramesh and Tajinder (1987) ${ }^{42}$ while studying the extent of popularity and nutritional contribution of processed fruit product among different socio-economic groups observed that consumption of processed fruit products like jam, squash and juice showed an increase with education of women.

Raut (1987) ${ }^{43}$ in his study on consumer's attitudes towards advertising pointed out that, 89 percent of the respondents believed that advertising is useful to the consumers for giving convenient information about the products to the consumers awareness.

Mani and Srinivasan (1990) ${ }^{44}$ in their analysis on buying behavior of consumers with respect to processed fruits and vegetables found that, majority of the consumers purchased jam in large quantity followed by squash. Many consumers were loyal to a particular brand and were conscious of quality (taste) than price or shelf life.

Ramachandran et al. (1996) ${ }^{45}$ in their study found that, coconut oil is the most preferred oil for edible and toiletry purposes. Higher income groups make monthly purchases, whereas lower income groups purchase weekly. Palm oil is the second preference among other edible oils. Homemade oils are used because of low cost availability of by-products and purity. Purchase of other edible oils was due to the fluctuations in price than health factors.

Katy and Dipika (1997) ${ }^{46}$ in their study attempted to analyse consumer's purchase behavior over two periods in the cities of Mumbai, Calcutta and Delhi. The study showed that while segmenting market on the basis of consumption pattern of various product categories Calcutta seemed to be opting for reduced consumption as a way of economizing rather than downgrading on product quality.

Kuldeep Singh and Varshney (2003) ${ }^{47}$, in their study observed that shrinking market share and reduction in sale do not mean consumers have actually been cutting back on their use of toilet soaps. They also stated that it is not the awareness but lack of affordability which restricts consumers from buying toilet soaps.

Polegato and Zaichkowsky (2004) ${ }^{48}$ observed that husbands are seen increasingly willing to take on food shopping and revealed that 25 to 45 percent of husbands share family food shopping role with their wives.

Vijayakumar (2005) ${ }^{49}$ found that the age group of people is an important criterion to determine the consumption pattern of carbonated soft drinks. It is also pointed out that age, marital status; occupation and family income were significantly related to the monthly spending on soft drinks.

### 4.1.4 FACTORS INFLUENCING BRAND PREFERENCE:

Sabeson (1992) ${ }^{50}$ in his study stated that, high quality, price and taste of the products were the major criteria based on which the consumers selected a brand of processed fruits and vegetable products.

Ashalatha (1998) ${ }^{51}$ studied the factors influencing the performance of BAMUL milk for a sample of 100 respondents. The study revealed that the factors such as door delivery, clean packing, quality, hygienic preparation, time saving and reliability, good value for money, freshness and desired flavour were important in the order in influencing the decision of buyers for BAMUL milk.

The study undertaken by Sheeja (1998) ${ }^{\mathbf{5 2}}$ in Coimbatore district considered the quality aspects like aroma, taste, freshness and purity as the major factors deciding the preference for a particular brand of processed spices.

Raj Reddy and Pruthviraju (1999) ${ }^{53}$ studied about buying motives and it was found that, factors influencing brand loyalty of farmers were dealer's suggestions, quality product and co-farmers. The problems faced by farmers were supply of seed or poor quality seed, higher price, adulteration and irregular supply of seeds.

Gaur and Waheed (2002) ${ }^{54}$ conducted a study on buying behaviour for branded fine rice in Chennai and Coimbatore city. The study indicated that retailers were ranked as the prime source of information and the family members as the next important source of information about the branded fine rice. Rice mandy formed the major source of purchase for Chennai ( 73.00 percent) and Coimbatore ( 70.00 percent) households. Quality and image of the brand were ranked as first and second factors influencing brand preference in both Chennai and Coimbatore cities.

Sanjaya et al. (2002) ${ }^{55}$ reported that, the decision for purchasing branded fine rice was mostly made by the wives of the family. The retailers were ranked as the
prime sources of information about branded fine rice. The monthly purchase was the most preferred frequency of purchase, which might be due to the fact that most of the respondents were of monthly salaried class and they would have planned their purchase accordingly along with other provision items. The quality and the image of the brand were ranked as the major factors for brand preference in the purchase of branded fine rice.

In a study conducted by Sarwade (2002) ${ }^{56}$ it has been observed that, the price was the factor, which influenced the purchasing decision as against the quality of the product. It is very interesting to find out that the company image and brand image were not totally considered by the households.

Nandagopal and Chinnaiyan (2003) ${ }^{57}$ conducted a study on brand preference of soft drinks in rural Tamil Nadu, using Garrets ranking technique, they found that, the product quality was ranked as first, followed by retail price. Good quality and availability were the main factors, which influenced the rural consumers of a particular brand of a product.

Kubendran and Vanniarajan (2005) ${ }^{58}$ found that, the change in consumption pattern is due to changes in food habits. If income and urbanization increase among consumers, the percentage of income spent on consumption increases. The urban consumers prefer mostly branded products compared to rural consumers. The most significant factors influencing buying decisions were acceptability, quality, regular supply, door delivery and the mode of payment.

Ramasamy et al. (2005) ${ }^{\mathbf{5 9}}$ studied consumer behaviour towards instant food products in Madurai, the second largest city in Tamil Nadu and observed that, consumers do build opinion about a brand on the basis of which various product features play an important role in decision making process. A large number of respondents ( 78.00 percent) laid emphasis on quality and 76.00 percent on price which was an important factor, while 64.00 percent of the respondents attached importance to the image of the manufacturer and 50.00 percent considered packaging as an important factor and an equal percentage ( 50.00 percent) felt longer shelf life influenced them.

Banumathy and Hemameena (2006) ${ }^{60}$ while studying consumer brand preference with respect to soft drinks found that, after globalization most of the consumers like the international brands such as Pepsi and Coco-cola. Consumers
preferred a certain brand or a particular drink mainly because of its taste and refreshing ability.

Vincent (2006) ${ }^{\mathbf{6 1}}$ elicited that; quality was an important factor that draws consumer towards branded products. Media is a key constituent in promoting and influencing brand. A child's insistence affects family's buying behaviour. Children are highly aware and conscious of branded items. Although unbranded products sometimes give same satisfaction as branded products, customers would still prefer to purchase a branded product.

According to Singh and Singhal (1986) ${ }^{62}$ a well designed packaging acts as the main identifying feature for quality and quantity and make the consumers more informative and choosy. It further informs the consumers as to what quality, quantity and price, the package is worth off.

Hundal and Sandhu (1987) ${ }^{63}$ in their study on buying behaviour of television buyers in Punjab identified reasonable price as the major factor which influences the brand preference among the consumers. They also added that friends and relatives are the major influence in selecting a brand.

Venkatesharlu et al. (1987) ${ }^{64}$ in their study on factors influencing consumer decision making process towards biscuits found that, sample consumers mostly purchased biscuits at least once in a week. Consumers preferred packed biscuits to lose ones and small packets to big ones. Parents and children were more or less equally involved in decision making. Consumers' perceived quality and taste were important influencing variables that determined brand loyalty.

Kramar (1988) ${ }^{\mathbf{6 5}}$ stated that, the recent trends appeared motivated by nutritional food safety perceptions, and health concerns were not the only factors. He also observed that taste, price, convenience, variety and quality were also important. He found that the consumers were increasingly demanding safe and nutritious food appropriately processed, labeled and certified.

Xavier (1991) ${ }^{66}$ in his study to determine the chief influence in the family decision process found that, in more than half of the households husband is the major influence. In households with college going children, they influenced the decision process highly.

Kinnucan et al. (1993) ${ }^{67}$ found that, quality and flavor perception were important determinants for purchasing catfish. Convenience was an important factor influencing the decision to purchase lobster. Nutritional value and health
considerations were important determinants in the decision to purchase shrimp in the United States.

Raka and Arora (1997) ${ }^{68}$ who examined the buying behaviour towards processed fruits and vegetables products, identified taste as the most important factor which influences the purchase decision followed by price and quality.

Kempt and Smith (1998) ${ }^{\mathbf{6 9}}$ observed that, consumers first usage experience with a brand is a critical factor in determining brand beliefs, attitudes and purchase intention.

Gupta and Verma (2000) ${ }^{70}$ examined the influence of husband, wife and children and the interaction between them in the purchase decision process. The study also focused on the influence of socio-economic variables like age, education, income and employment in the decision dimensions and found that income of the family and women employment is the major factor influencing family decision making.

### 4.1.5 ALTERNATIVE PURCHASE PLANS:

Rajarashmi and Sudarsana (2004) ${ }^{71}$ revealed that, almost all sample respondents preferred branded products and if their favorite brand is not available in the retail shop, they will go for another store and purchase their favorite brand. If it is not available in the market, the respondents were ready to postpone their purchase decision.

Anandan et al. (2007) ${ }^{72}$ studied that, majority of the respondents (54.00 percent) will buy another brand if preferred brand is not available, 18.00 percent of the respondents will go to the nearby town for buying the preferred brand. Fifteen percent of the respondents will postpone their purchase decision. It was revealed from the study that customers cannot postpone the decision of buying the detergents, as it was one of the essential commodities.

Singh (1980) ${ }^{73}$ examined consumer's store loyally and preferences in his study and revealed that nearness, reputation of the store and acquaintance with store owner attracted store loyalty. While analyzing correlation between store loyalty and brand loyalty, store loyalty was found stronger than the other.

Singh and Singh (1981) ${ }^{74}$, while studying the brand loyalty in India observed that, single brand loyalty is very less and dual or multi brand loyalty is existing now. He also ranked reasons for loyalty based on importance of factors such as quality, previous usage, availability and company/brand reputation.

Singh and Prabhkar (1989) ${ }^{75}$ stated that, on the basis of consumer perception a consumer would take the purchase decision and a particular brand was priority over other brands. They also observed that the marketers realized the importance of consumer perception the attempted to create a unique image for their products, which, enable to achieve an advantage over their competitors' products.

Jagdish et al. (1991) ${ }^{\mathbf{7 6}}$ who studied customer satisfaction on Allwyn trendy watches identifies certain unique features which influence the consumers especially the youngsters such as light weight, water proof, wide choice of designs and colours, accurate indication of time and flexibility to change and straps.

Broudbridge and Morgan (2001) ${ }^{77}$ in their study on consumer buying behaviour of and perception towards retail brand baby products found that, consumers need to feel confident with the product in terms of reliability and performance and brand names provided this assurance of quality with baby products.

Sara Valentini, Elisa Montaguti and Scott A. Neslin (2011) ${ }^{\mathbf{7 8}}$ in their article "Decision Process Evolution in Customer Channel Choice" hinted that, the ever expanding multiplicity of channels through which customers can purchase makes it imperative for managers to understand how customer decide which channels to use. The writer of the above article has narrated decision process evolution of customer channel choice. The growing number of sales channels through which customers can make purchases has made it necessary for managers to understand how customers make this decision. First, they analysed data for a book retailer and replicate their analysis using data from a durables and apparel retailer. Their results suggest that customers' decision processes do evolve, a minority but sizeable segment changes decision processes within the observation period and customers who change do so from a decision process in which they are highly responsive to marketing to one in which they are less responsive.

Abhijit Singh, Brijesh Kumar (2011) ${ }^{79}$ in their article "Customer Relationship Management Tools - An Overview" expressed that customer satisfaction is an antecedent to customer loyalty. A company with a large number of loyal customers gains advantage over its competitors. This article focuses on innovative Customer Relationship Management (CRM) tools used by various companies. The CRM tools help in strengthening the firms' competitive advantage. Companies must therefore handle their customers in such a way that they do not even think about
considering other alternatives. For this purpose, a dedicated CRM team should be employed to monitor all the operations which affect customer relationship.

Bowen J and Shoemaker S. (1998) ${ }^{\mathbf{8 0}}$ in their article "The Antecedents and Consequences of Loyalty" expressed that consumer loyalty is reflected by repeat purchase and willingness to associate with a particular company. There is a sense of satisfaction when a customer receives a product or service according to his expectation. Wherever a customer buys any product or service, he has some expectation related to the value of money spent. He is satisfied when he feels that he received his money's worth. He is delighted when he feels he got more value for his money that what he had expected. Consumer relation management is a strategy in which the marketer tries to attract, satisfy, retain and maintain long-term collaboration with the customer.

Vivek Ahuja (2011) ${ }^{\mathbf{8 1}}$ in his article "Customer Value Management "A Step Ahead of CRM" opined that, customer value is based on the quality of the customer relationship, as experienced from both sides that of the customer and the marketer. The value is created by products and services when they benefit the customers by satisfying their needs. He has explained a five step model i.e. Discover, Commit, Create, Assess, and Improve which aims to create value for the customers and also for the suppliers. As a concept in marketing, the management of customer value is attracting a lot of attention from marketing firms in today's dynamic and competitive environment.

Bruce Cooil, Alexander Buoye, Lerzan Aksoy and Timothy L. Keiningham (2011) ${ }^{\mathbf{8 2}}$ in their articles discussed a new tool "the Wallet Allocation Rule" with reference to Idea Watch which shows the best way to pull ahead of competitors. Authors have explained how to arrive at share of wallet in three steps. The rule makes it possible to craft strategies that directly affect brand performance and then measure the impact on share of wallet. As he suggests, boosting your brand's rank means minimizing the reasons your customers turn to your competitors.

Marco Bertini and Luc Wathieu (2010) ${ }^{83}$ in their article " How to Stop Customers from Fixating on Price" stated that, there are four pricing moves that can call attention to how an offering is different and why it deserves to fetch a premium. First is using price structure to clarify our advantages, second is willfully overpricing to stimulate curiosity, third is partitioning prices to highlight overlooked benefits, and last fourth is equalizing price points to crystallize personal relevance. It is said that
price tag does two things, it names the terms of the exchange, just how much money a customer has to give up to procure the offering and it often signals quality particularly when that is hard to ascertain independently.

Mayowa Gabriel Ajao (2011) ${ }^{84}$ in their article "Queuing Theory: A Model for Improving Customer Satisfaction in the Nigerian Banking Industry" discussed queuing and waiting for services is a reality of daily life in every situation where demand exceeds the supply of services. This article focuses on the problem of long queues in banks, why the managers find it difficult to eliminate and its effect on customer satisfaction and service delivery. The study is aimed at application of queuing theory to provide solution to the problems of overcrowding the waiting-lines in banks. The findings revealed that insufficient facilities (physical and manpower) and technological deficiencies are the major cause of long queues in banks and this has negative impact on customer satisfaction and efficient service delivery.

Munjusmita Dash (2011) ${ }^{85}$ in the article "Buyers' Preferences of Product Design for Purchase of Craft Items" stated that, the beauty and charm of its crafts has always been a source of attraction to many Indian and foreign tourists. The design of a product should be in accordance with the tastes and preferences of customers. So it is necessary for institutions to come together to provide the strategic direction and action plans to evolve systems, procedures and norms related to design, market, technology, innovation and quality. Customer satisfaction is the essence of marketing, all the sales persons should be trained to maintain good customer relations.

Rob Markey, Fred Reichheld, and Andreas Dullweber (2009) ${ }^{86}$ in their article "Closing the Customer Feedback Loop" narrated how to tackle with this feedback so as to retain the existing customer loyal to our product. It's never been more important to keep the customers you already have because it's much cheaper than acquiring new ones. But elaborate customer research may be beyond budget of the year. Many companies have succeeded at retaining customers by asking them for simple feedback and then empowering frontline employees to act swiftly on that feedback. For this it is necessary for employees and managers to get customer feedback routinely, on a daily or weekly basis. Let the customer know the impact their feedback had on improving the company's processes. Give customers a voice in running our business.
R. Harish (2011) ${ }^{87}$ in the article "Customer Managed Relationship - The New Paradigm" provides an introduction to Customer Managed Relationship (CMR),
a concept which has emerged as a further development based on Customer Relationship Management (CRM). While a CRM system is designed from the perspective of the marketer, CMR put the steering wheel in the hands of the customer, but still results in benefits for the marketer. In fact CMR is proposed as better alternative to CRM. The idea is to let the customers tell what they like or do not like in a product/service, and use this as an input to provide appropriate products/services, thus leading to better results. With Internet-enabled platforms, it has become possible to reconstruct entire processes so as to put customers in charge of their own needs by providing them with Internet-based management tools and data that they require; at the same time, protecting and furthering the company's interests. The financial services company implements CMR, supported by a powerful website which offers a variety of tools for customers to input their data, access information on various financial products, work out alternative scenarios and take decisions on their own. Thus CMR provides benefit to both the customer and the company.

John Philip Jones (1998) ${ }^{\mathbf{8 8}}$ in the book "What's In a Brand - Building Brand Equity through Advertising" elaborately dealt with what is brand, how it emerges and development of a brand through advertising. There are twelve chapters in this book. As per author, the growth in the industry is coming from new kinds of advertisers and new product categories that have entered the arena. Brands are bought not once but repeatedly, in many cases, in predictably regular patterns; hence truth of the saying that when we build brands, we are making customers and not just sales. The importance of repeat purchase means that in advertising FMCG, it is not only ethical but also good business to be truthful, because if the advertising over-promises, the customer will punish the manufacturer by not buying the brand again. Brands are enriched with added values. The result of added values is that successful brands are preferred to their competitors in named product tests by a higher margin than in blind product tests, since the latter screed out added values and force respondents to react exclusively to functional performance. The advertising field is intensive and very large. The book is uncompromising in its examination of advertising controversies, caused by gaps in what we know for certain about advertising and its effects.

David L. Loudon and Albert J. Della Bitta (2002) ${ }^{\mathbf{8 9}}$ in their book "Consumer Behaviour" presents theoretical concepts as well as material to marketing strategies and decision making in the private, public and nonprofit sectors. There are five parts, part I deals with studying the discipline of consumer behavior, Part II deals
with environmental influences on consumer behavior, Part III describes how Individual determinants of consumer behaviour deals with the consumer internal variables and Part IV narrates how Consumer Decision Process and how consumers make purchase decision based on their environmental influences and individual determinants. Part V presents popular models of consumer behaviour and describes the consumer research process, emphasizing its importance as a prerequisite to many marketing decisions. The book is quite adaptable in regards to topics covered in it.
Sathyanarayanan R.S. (2010) ${ }^{90}$ has discussed in detail about measurement of Service quality. Since quality customer service plays a pivotal role in influencing shopping behaviour, retailers should know and understand the tools that are available for measuring service quality in the context of retailing. Economic growth, Sound Financial System, Favourable Demographic Profile are contributing towards growth of India's Retail business. On the supply side, the availability funds through various routes and low cost and skilled manpower have facilitated the growth of retail. However, little is known about service quality perception in India. There are Five Ps of measuring retail service quality - i.e. Product dimension, People Dimension, Physical evidence or tangible dimension, Policy and Process Today, consumers have become more demanding. What satisfied their demands yesterday no longer satisfy them today? Their perception towards quality keeps changing, as they see and gain new experience from the service offered by multinational retailers both in India and abroad. Offering quality service in a retail set-up increases the chances of customers visiting the store again. Available research states that consumers satisfied with service quality are more likely to remain loyal.

Swati Singh (2010) ${ }^{91}$ said that the idea of co-creation was initially presented in the year 2000 by C.K. Prahalad and Venkat Ramaswamy. As per the journalist different angles included in the co-creation process and highlights endeavors made by different organizations at using co-creation to drive market development. As indicated by creator Co-creation is such inventive showcasing methodology that endeavors to saddle new thoughts straightforwardly from the clients, by making and keeping up a commonly useful firm-client association. The present day client is significantly all the more observing and eager about communicating his/her feeling. A percentage of the reasons adding to the longing for enjoying co-creation are Platform for Showcasing Creativity, Custom Made, Reward, Employment, Just fun thus. Sorts of Customer Cocreation:

- New Product/Service Development: In this type of co-creation, purchasers are requested proposals in growing new items.
- Product/Service Modification: In this sort of co-creation, input is requested on approaches to enhance existing items and administrations.
- Mass Customization: This is a procedure of offering altered items utilizing adaptable frameworks, without prior favorable position of large scale manufacturing.
- Open Community Participation: This type of co-creation assigns the obligation regarding a zone of business to a group of clients and non-clients.
- Real-time Self Services: This type of co-creation guarantees client associations up to the season of administration conveyance.
Co-creation exercises are compelling in expanding brand devotion and producing fervor around the brand. It can give the clients a feeling of brand proprietorship and fortify their relationship with the brand.

YI Zhao, Ying Zhao and Kristiaan Helsen (2011) ${ }^{92}$ in their article "Consumer Learning in a Turbulent Market Environment" empirically studied consumer choice behaviour in the wake of a product-harm crisis, which creates consumer uncertainty about product quality. They have developed a model that explicitly incorporates the impact of such uncertainty on consumer behaviour, assuming that consumers are uncertain about the mean product quality level and learn about product quality through the signals contained in use experience and the product harm crisis and also that consumers are uncertain about the precision of the signals in conveying product quality and update their perception of this precision over time. They estimate this model using a scanner panel data set that includes consumer purchase history before, during and after a product harm crisis that affected Kraft Foods Australia's peanut butter division in June 1996.

Iris W. Hung and Robert S. Wyer Jr. (2011) ${ }^{93}$ have narrated that, when features of the judgment (social or non social) context are similar to those of the situation in which the products are normally used, self-focused attention increases participants' disposition to imagine themselves using the products they evaluate, and in turn, these imaginings increased both their evaluations of these products and their likelihood of choosing these products as a gift for taking part in the experiment. The effects occur when features of the judgment context are manipulated both by
incidental background music and by the presence of others in the situation at hand. However, when either self-focused attention is low or features of the judgment context are dissimilar to those in which the products are normally used, these effects are not apparent.

Khushdeep Dharni and Kuljit Singh (2011) ${ }^{94}$ researched buying behaviour of agri input consumers of organized rural retail outlets. Samples are collected from two top and bottom retail outlets on the basis of sales. Results from the study indicate that major items purchased from rural retail outlets included implements, seed and fertilizer. Quality and trustworthiness were the major reasons and price was the most important consideration at the time of purchasing agri inputs followed by packaging and branding. Fair billing and home delivery were considered relatively less important.

Tanmay Chattopadhyay, Rudrendu Narayan Dutta, Shradha Sivani (2010) ${ }^{95}$ implied that, not all media mix elements impact brand equity significantly. For example, television advertisement is not a good medium to advertise for repeat buyers, but a good medium for first time car buyers. Though press advertisement is a good medium to advertise for repeat buyers, but not for first timers. Thus the study proved that, as consumers are on different levels in their journey to gather category knowledge they behave differently.

Rajesh Sharma (2011) ${ }^{96}$ contemplated that; Contrary to a planned purchase, "impulsive buying" is a spontaneous and immediate purchase where the consumer is not actively looking for a product and has no prior plans to purchase. This study involved the collection of primary data of about 104 high school respondents, aged between 14 to 18 years. The finding indicated that there are significant different in impulsive buying tendencies between male and female adolescents. However no significant differences were found in impulsive buying tendencies based on age, income and idolatry behaviour. Also, in a highly competitive environment only those retailers who exceed the expectations of their customers in terms of providing an enjoyable shopping experience can survive and become successful.

Shiva Kumar and N. Meenakshi (2003) ${ }^{97}$ described their work on children as decision makers analyzed the purchase decision of children and parents in selected products. They observed that out of the nine products taken for the study, only in the TV channels to be viewed and the activities to be carried out by the children in their leisure time, children appeared to be the decision makers. However, in case of other
products taken for the study, namely, notebooks, foot ware, bicycles, comics, games, clothes and walkman, the decisions were taken by the parents or joint decisions were taken by both the parents and their children. .

Sharif Memon (2011) ${ }^{98}$ has studied selected FMCG international brands to identify the possible reasons of successful and less-successful international brands in Indian market. The study revealed that Quality, promotion is not a dependant variable across demography but Price, Advertisement is dependant variables across demography. Consumer makes buying decisions based upon the perception rather than the reality of the product. It means brands can become more valuable than their physical assets.

Sunil Giri, Vishal Sharma (2012) ${ }^{99}$ said that, in today's competitive business environment, the role of packaging has changed due to the consumer lifestyle change and increasing self service. Packages act as a very good tool of sales promotion, which also stimulates consumer buying behaviour. In this study authours have conducted a survey in Jammu and Kashmir to reveal the impact of packaging on consumer behaviour. It showed that the factors like packaging technique, different numbers of flavours, shape of packs and age are not considered important as per the analysis. But the propositions that visual elements of package influence choice of the product to a great extent, and labels, social messages, graphics and colours are frequently the major influence. Picture of the endorser or celebrity has the most positive impact for products with lower levels of involvement. However, information elements like calorie chart, recipe information are becoming increasingly important and influence choice. Appropriately delivered information on packaging generates strong impact on the consumers' purchase decision. So the food product packaging plays a vital role in consumer buying behaviour.

Sunil Kumar (2012) ${ }^{\mathbf{1 0 0}}$ has dealt with opportunities and threats of FDI in Multi brand retail. As per him India has 15 million-plus retailers, who account for $\$ 350$ billion of annual sales. In retail sector, it is expected that FDI in multi-brandretail will help in shaping up the Indian retail sector. It will strengthen the supply chain. More variety will be available for the consumers. FDI would help consumers, supplies and farmers. It would help in controlling inflation by offering more competitive and rationalized prices of products to consumers. More employment will be generated and farmers will get their due from their produce. There are certain threats which may emerge after allowing FDI in multi-brand-retail that are required to
be studied and analyzed in detail. FDI is big threat for the existing retailer they will jeopardize them. Farmers and small industries in India are not organized. They do not have any bargaining power and after FDI in multi-brand retail, they will be at the mercy of their buyers,. A lot has been said in FDI's favour and against it. It is quite sure that FDI in multi-brand retail is to be allowed sooner or later.

Patrick Spenner and Karen Freeman (2012) ${ }^{\mathbf{1 0 1}}$ hinted that, in today's fast market, marketers vision consumers as web-savvy, mobile enabled data sifters so they ramp up their messaging, expecting that the more interaction and information they provide, the better the chances of holding on to these increasingly distracted and disloyal customers. But for many consumers, the rising volume of marketing messages is overwhelming. Instead of pulling customers into the fold, markets are pushing them away with relentless and ill conceived efforts to engage. In this study the authors have conducted a survey: pre and post-purchase survey of more than 7000 consumers in the US, the UK and Australia. The outcome of the survey denotes that to make customers buy the product repeatedly, and recommend it marketers must provide trustworthy sources of product information, should minimize the number of information sources, simplify consumers' decision making.

Jie Zhang and Els Breugelmans (2012) ${ }^{\mathbf{1 0 2}}$ expressed that; Loyalty programs (LPs) are playing an increasingly important role in companies' customer relationship management efforts. Marketing researchers have studied various LPs extensively. The authors conducted an empirical investigation of a new retail loyalty program (LP), called an Item-based program (IBLP), in which price discounts are replaced by reward point promotions that need to be accumulated and redeemed later. They focused on examining the IBLP's effects on store-level outcomes (store visit probability, shopping trip spending, LP membership decisions, and sales revenue) to understand the impact of the new program.

Marco Bertini, Luc Wathieu, and Sheena S. Iyengar (2012) ${ }^{103}$ said that, consumers can be considered discriminating when they value the differences between alternatives in a market, especially when inspecting these differences is costly. As firms seek to distinguish themselves from competitors through the superiority of their offerings, they need the custom of discriminating consumers who look beyond price to welcome improvements in quality - no matter how small these improvements might be. This article illustrates a mechanism by which a crowded product space can be beneficial to firms striving to compete on quality. The argument is that consumers
uncertain about the importance of quality in a market interpret a surprisingly dense assortment - a large number of options in a given quality intervals, to be more discriminating in their judgments of value.

Joji Alex N. (2011) ${ }^{\mathbf{1 0 4}}$ indicated that, the standing of the core brand is the key to the success of Brand Extensions (BE). BE is defined as the potential in a brand to elicit a positive emotional response in the average consumer as a result of its usage. The author has conducted a survey in Kozhikode, Kerala for the customers of Maruti 800 and Dove soap, evaluating product line Brand extension. From the study it is seen that product line BE decision should be in the brand manager's mind only when they realize that their brands receive a great positioning in consumers mind and are much different from close substitutes. The marketers believe that high brand equity will attract loyalty to their brands but for the customer, the cost of switching is lower and he/she wishes to try comparable substitutes.

Amit R. Pandya and Monarch A. Joshi (2011) ${ }^{\mathbf{1 0 5}}$ expressed that, Retail is one of the most dynamic and fast-paced upcoming sectors in India with many international, national and regional players. One of the routes to succeed in retail business is to focus on its own brand/store brand/Private Labels as the financials of retail firms are very sensitive to margins on the brands they sell. Also private labels offer retailers greater control over the supply chain, negotiating margins with Nation Brand (NBs) manufacturers or companies. Authors of this article have presented his comparative study of Consumer attitude towards private labels with a special focus on Ahmadabad and Surat city. As observed by the researcher, quality is more important than price to shoppers. Perception of quality is an important element relating to the use of Private Labels.

Dr.Pradip Kumar Malik and Dr. Pradyumna Kumar Tripathy (2011) ${ }^{106}$ indicated that, Organizational culture is important both within and outside the organization. Internally, the employees imbibe it to uphold the culture. Externally, it creates an impression among stakeholders including buyers. In this article authours have presented a critical analysis of role of organizational culture in shaping buyer seller relationship. As per authours organizational culture is the lifeblood of the organization. It creates the identity of an organization. An organization in buying selling perspective needs to have a balanced decision making to fructify the exchange relationship. An organization, whether selling or buying becomes successful in its internal management and decision making when it has a well-knit cultural back-up
supported by convergent efforts from its members. Compatibility of culture of the two, acts as a premium to result in a win-win relationship for both buyer and seller. In fact, cultural symmetry binds the buyer and the seller into an integrated whole that happens to have perpetual stability.

Adam M. Grant (2011) ${ }^{\mathbf{1 0 7}}$ in his article expressed that; how customers, end users can motivate business promotion. Employees can be inspired by real-life examples of the impact of their work. When bankers hear a customer describes how a loan has enabled her to buy a house or pay off major debts, they gain a richer understanding of how their work makes a lasting difference. Author suggests turning employees into end user, to find end users inside the organization, to engage employees who currently do low impact work, to spread to message to outsource inspiration from end users. Gratitude from end users is a powerful reminder of the value of continued quality improvement.

From the above review of literature, there main gaps are identified. Firstly majority of the studies are neither based on sound theory nor on a rigorous methodology. The studies seem to be adhoc in nature. Secondly milk based studies are very limited. There is a big research gap in Indian marketing research despite the domination of the rural areas in the country. Thirdly Kolhapur based studies are meager. The scholar could trace only one piece of literature relating to Consumer behaviour in Kolhapur. There are a few more studies on Kolhapur but they are not more emphasizing on consumer behaviour with special reference to processed pouched milk. These arguments validate the need of the present study.

### 4.2 PROFILE OF DAIRY INDUSTRY IN INDIA

### 4.2.1 MILK, THE MOTIVATION BEHIND A REVOLUTION ${ }^{108}$

For the last six decades the farmers of Kaira were facing the problems regarding agriculture like anywhere else in India. His earning source, bread and butter was totally dependent upon his regular harvest. During the off season, several farmers faced starvation. Their income from buffalo milk was unpredictable and due to which the total control was in the hands of middlemen. As milk is perishable entity for which constraint is there and they have to sell for the price offered and also they were selling cream and ghee at a disposable cost.

Farmers were not having the mastermind to sell the products at high cost in the market. In 1945 the Bombay Milk Scheme began. Anand, which is 427 kilometer from Bombay, sanitized the milk and sent to Bombay. Bombay Milk Scheme and Polsons Limited had a tie up to supply milk from Anand to Bombay. This scheme was beneficial to all concerns except farmers in Kaira. They were still helpless and no sufficient earnings resulted in the dissatisfaction of farmers. In 1942, the farmers went to Sardar Patel, who pushed farmers' co-operatives ahead.

Then, Mr. Morarjibhai Desai visited Kaira District to find out milk cooperative and if necessary to carry out a milk strike. On January 4, 1946 Mr. Desai took a meeting in Samarkha village and it was decided that milk producers' cooperative societies' social order should be composed in every town of Kaira district.

The major aim was to gather the milk from farmers and clubbed by a Union. It was made obligatory to Government to purchase milk from the Union. But unfortunately the Government did not respond positively.

After that farmers carried out 15 days milk strike and not a single drop of milk was transported to any place from Anand. Result was that Bombay Milk Scheme faced serious problem. In order to learn the scenario in Anand, 2 people, One Englishman and his representative went to Kaira. They surveyed the circumstances and discussed farmers' interest.

As a result of the discussion, a new association of farmers known as Kaira District Co-operative Milk Producers' Union Limited, Anand was established on December 14, 1946.

## Goals of Kaira District Co-operative Milk Producers' Union Limited

- Providing lawful marketing offices
- Purifying the milk for the Bombay Milk Scheme
- It was a modest bunch of two town's village co-operative societies producing about 250 liters a day.


## Benefits:

- Till 1948, 432 farmers had joined village societies
- The amount of milk processed by the Union increased up to 5000 liters per day.

The next greatest achievement for Kaira District Co-operative Milk Producers’ Union Limited, Anand was the installation of a plant of 50 lakh for processing the
additional milk and to spread the sale of milk and milk powder with the help of UNICEF, GoI, and Govt. of New Zealand under Colombo plan. The venture of installation was completed in 1955.

The new dairy gave a further inspiration to the co-operative development among milk makers and Union sort out more town co-operative societies, social orders and to handle milk every year. The products were prepared from buffalo milk. Kaira Union presented the brand "Amul" for advertising its product range. Due to the buffalo milk, a history was made in the world and Amul made cheese and baby food on a large commercial scale.

## Amul Research and Development Association (ARDA)

This institution had started lot of programs for farmers. ARDA has initiative for improving cattle breeds. While going through this project, Mr. Kurien understood that without an investigative and expert methodology in administration of reproducing could not possible. To overcome the problem a new facility called ARDA was established.

## Functions of ARDA:

1) Semen Production
2) Preservation and dispatch for Artificial Insemination
3) Progeny Testing
4) Fertility
5) Dairy Heard Improvement
6) Vaccination and Deworming
7) Mapping of soil for Deficiency of Minerals
8) Animal Nutrition
9) Artificial Insemination and First Aid
10) Extension Education for farmers

The Three Tier Structure: Primary Village Co-agent Society
Process of First Tier - Primary village Co-operative Society:

1) An Anand Pattern village dairy cooperative society (DCS) is formed by milk producers.
2) Any producer can become a DCS member
3) Each DCS has a milk collection centre
4) Each member's milk is tested for quality with payments based on the percentage of fat and SNF.

## District Union

A District Cooperative Milk Producers' Union is owned by dairy cooperative societies.

1) The Union buys all the societies' milk, then processes and markets fluid milk and products.
2) Union also provides a range of inputs and services to village co-operative societies
3) Union staff train and provide consulting services to support village cooperative society leaders and staff.

## The State Federation - third Tier:

1) The cooperative milk producers' unions in a state form a State Federation which is an apex marketing body and plays a role in the development of the district unions.

### 4.2.2 WHITE REVOLUTION ${ }^{109}$

Late Shri L.B. Shasri, the then PM of India, initiated the Cattle Feed plant in Anand on $31^{\text {st }}$ October 1964. While discussing with farmers and General Manager, Mr Verghese Kurien, expressed his desire to replicate the success all across the nation to bring remarkable changes in the money related conditions of overall farmers. Accepting and agreeing with this reality in 1965 National Dairy Development Board (NDDB) was set. Later on NDDB became impetus for dairy progression program. This is called "White Revolution" as Anand model. Replication of "Anand Pattern" has helped India to emerge as the largest milk producing nation in the world.

There are 378 village milk producers' co-operative societies, about 65,000 members, nearly $1,25,000$ adult buffalo's of the Surti Breed. In the year 63-64 about 60,000 tonnes of milk collected. Its trade name "Amul" has become a household word all over India. The union has established an admirable status in the dairy industry.

### 4.2.3 NATIONAL DAIRY DEVELOPMENT BOARD (NDDB) ${ }^{110}$

## Mission:

- NDDB began its operations with the mission of making dairying a vehicle to a better future for millions of grassroots milk producers.
- The mission achieved thrust and direction with the launching of "Operation Flood", a programme extending over 26 years and which used World Bank loan to finance India's emergence as the world's largest milk producing nation.
- Operation Flood's third phase was completed in 1996 and has to its credit a number of significant achievements.


## Functions:

- The National Dairy Development Board (NDDB) was founded in 1965 to replace exploitation with empowerment
- Tradition with modernity
- Stagnation with growth
- Transforming dairying into an instrument for the development of India's rural people.
As on March 2014, India's $1,60,000$ village dairy cooperatives, 177 milk unions, 15 federations and 15.4 million members associated with it. In addition, NDDB also promotes other commodity-based cooperatives, allied industries and veterinary biological on an intensive and nation-wide basis.


## National Dairy Plan -I

NDP Scheme was introduced for a period of time from 2011-2012 to 2018-19. For this aggregate speculation of around 2242 Crores out of which 1584 Crores was given by International Development Association (IDA), the GoI contributed 176 Crores, 282 Crores offered by End Implementing Agencies (EIAs) which will complete the undertakings in partaking states, and also 200 Crores were sponsored by National Dairy Development Board and its auxiliaries for giving specialized and usage backing to the venture.

Leading body of Executive Directors of the International Development Association has affirmed a US\$ 352 million credit towards Govt. of India which issued regulatory endorsement of the Central Sector Scheme NDP I.

## Destinations

- To help increase productivity of milch animals
- To help provide rural milk producers with greater access to the organized milk-processing sector. These objectives would be pursued through
adoption of focused scientific and systematic processes in provision of technical inputs supported by appropriate policy and regulatory measures.


## Project Area

More than 90 percent milk of the nation is generated by 18 states as follows like: Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Chhattisgarh, Jharkhand, Rajasthan, West Bengal, Uttar Pradesh, Uttarakhand, Tamil Nadu, Telangana, Rajasthan, Punjab and Odisha. Scope of NDP I will however be the nation over as far as advantages collecting from the plan.

## Function of NDP I

1) Advice to other milk plans and to associations inspired by dairy plans.
2) It trains staff for the different milk plans and associations inspired by dairy plans.
3) The Government of India (Ministry of Community Development and Cooperation) propose with head quarters at Anand, backing of specialized specialists of the Kaira Union.
4) The significance of milk and milk products in giving nutritious food to the nation can't be over emphasized.

There is likewise impressive extension for development in our strategies for domesticated animals reproducing and nourishment. For this reason we visualize a huge project of setting up helpful dairies amid the Fourth Plan and this will, undoubtedly, be founded on the Anand model. On the off chance that we can transplant the soul of Anand in numerous different spots, it will likewise bring about quickly changing the financial status of the country zones and in our accomplishing the target of a communist example of society.

### 4.2.4 OPERATION FLOOD ${ }^{111}$

In 1969 a dairy advancement project was established by NDDB as a practical model project. The prime objective was to connect rural milk creation to urban milk promotion by cooperatives. The dream of Operation Flood (OF) came in reality in July 1970 with help from the United Nations Development Program (UNDP) and the Food and Agriculture Organization (FAO).

Figure 4.1

## COMPARISON OF FEATURES OF OPERATION FLOOD IN PHASES


(Source: http://www.nddb.org/English/Statistics/Pages/Performed-States.aspx) (Retrieved on Jan.2015)

## Benefits of Operation Flood:

1) India became self sufficient in milk and milk products by means of Operation Flood through modernization of our dairy industry.
2) Though it was a small-producer oriented programme, it has helped the farmers increase their income, employment and nutrition status of milk producing households.
3) Those families once with a small resource base in the form of animal and land holding were targeted under this programme. The target families constituted less than four hectors of land ( 66 percent), only two milch animals ( 70 percent) and more especially landless (21 percent) status.

Figure 4.2
Production/Per capita Availability of milk in India

(Source:http://www.nddb.org/English/Statistics/Pages/Milk-Production-States.aspx) (Retrieved on Jan.2015)

Table 4.1
Milk Productions across countries

| Milk Productions across countries (Million Tonnes) |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Country | $\mathbf{1 9 9 7}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 1 0}$ |
| India | 70.88 | 79.66 | 95.62 | 117.00 |
| USA | 70.80 | 76.02 | 80.25 | 87.46 |
| China | 10.09 | 12.37 | 32.02 | 41.14 |
| Pakistan | 25.58 | 25.57 | 29.44 | 35.49 |
| Russian Federation | 34.13 | 32.28 | 31.15 | 32.14 |
| Brazil | 19.36 | 20.53 | 25.53 | 31.82 |
| Germany | 28.72 | 28.35 | 28.49 | 29.67 |
| France | 25.65 | 25.74 | 25.71 | 24.21 |
| New Zealand | 11.06 | 12.24 | 14.64 | 17.01 |
| United Kingdom | 14.84 | 14.49 | 14.47 | 13.96 |
| Poland | 12.12 | 11.89 | 11.95 | 12.30 |
| Netherlands | 10.92 | 11.16 | 10.85 | 11.65 |
| Mexico | 7.97 | 9.44 | 10.03 | 10.84 |


| Argentina | 9.37 | 10.12 | 9.91 | 10.50 |
| :--- | :--- | :--- | :--- | :--- |
| Australia | 9.32 | 10.85 | 10.13 | 9.02 |
| Canada | 8.10 | 8.16 | 7.81 | 8.24 |
| Ireland | 5.26 | 5.16 | 5.38 | 2.24 |
| Romania | 5.01 | 4.62 | 5.35 | 5.06 |
| Denmark | 4.63 | 4.72 | 4.58 | 4.91 |
| Switzerland | 3.88 | 3.91 | 3.96 | 4.11 |
| Bangladesh | 2.15 | 2.14 | 2.62 | 3.40 |
| Austria | 3.11 | 3.36 | 3.14 | 3.29 |
| South Africa | 2.85 | 2.54 | 2.87 | 3.23 |
| Sweden | 3.28 | 3.35 | 3.21 | 2.92 |
| Chile | 2.07 | 2.00 | 2.31 | 2.54 |
| Finland | 2.46 | 2.45 | 2.43 | 2.35 |
| Afghanistan | 1.72 | 1.66 | 1.73 | 1.82 |
| Nepal | 1.08 | 1.17 | 1.35 | 1.58 |
| Norway | 1.91 | 1.74 | 1.59 | 1.58 |
| Indonesia | 0.74 | 0.79 | 0.85 | 1.32 |
| Thailand | 0.39 | 0.52 | 0.89 | 0.85 |
| Mauritania | 0.30 | 0.32 | 0.37 | 0.93 |
| Viet Nam | 0.06 | 0.10 | 0.23 | 0.34 |
| Sri Lanka | 0.29 | 0.16 | 0.17 | 0.21 |
| WORLD | 550.77 | 578.88 | 648.00 | 720.98 |

(Source:http://www.nddb.org/English/Statistics/Pages/Milk-Production-across-countries.aspx.htm)
(Retrieved on Jan. 2015)

Figure 4.3
Milk Production in India

(Source: http://www.nddb.org/information//Statis/Milk-Production.aspx, Retrieved on Nov, 29, 2015)

Table 4.2
Milk Production by States (Estimates of Milk Production-State wise)

| (000 tonnes) |  |  |  |
| :---: | :---: | :---: | :---: |
| State | 10-11 | 11-12 | 12-13 |
| All India | 121848 | 127904 | 132431 |
| Andhra Pradesh | 11203 | 12088 | 12762 |
| Arunachal Pradesh | 28 | 22 | 23 |
| Assam | 790 | 796 | 800 |
| Bihar ** | 6517 | 6643 | 6845 |
| Goa | 60 | 60 | 61 |
| Gujarat | 9321 | 9817 | 10315 |
| Haryana | 6267 | 6661 | 7040 |
| Himachal Pradesh | 1102 | 1120 | 1139 |
| J\&K | 1609 | 1414 | 1631 |
| Karnataka | 5414 | 5447 | 5718 |
| Kerala | 2645 | 2716 | 2791 |
| Madhya Pradesh | 7514 | 8149 | 8838 |
| Maharashtra | 8044 | 8469 | 8734 |
| Manipur | 78 | 79 | 80 |
| Meghalaya | 79 | 80 | 81 |
| Mizoram | 11 | 14 | 14 |
| Nagaland | 76 | 76 | 79 |
| Orissa | 1671 | 1729 | 1724 |
| Punjab | 9423 | 9551 | 9714 |
| Rajasthan | 13234 | 13517 | 13946 |
| Sikkim |  | 45 | 42 |
| Tamil Nadu | 6831 | 6968 | 7005 |
| Tripura | 104 | 111 | 118 |
| Uttar Pradesh | 21031 | 22556 | 23330 |
| West Bengal | 4471 | 4672 | 4859 |
| A\&N Islands | 25 | 26 | 21 |
| Chandigarh | 45 | 45 | 44 |
| D\&N Haveli | 11 | 11 | 11 |
| Daman \& Diu | 1 | 1 | 1 |
| Delhi | 480 | 480 | 287 |
| Lakshadweep | 2 | 2 | 2 |
| Pondicherry | 47 | 45 | 47 |
| Chhattisgarh | 1029 | 1119 | 1164 |
| Uttaranchal | 1383 | 1417 | 1478 |
| Jharkhand | 1555 | 1725 | 1679 |
| Tripura | 104 | 111 | 114 |

(Source: http://www.nddb.org/English/Statistics/Pages/Milk-Production-States.aspx)
(Retrieved on Nov, 29, 2015)

Figure 4.4
Milk Production by States (Estimates of Milk Production-State wise)


Source: Department of Animal Husbandry, Dairying\& Fisheries, Ministry of Agriculture, Gol Note: Figures of 2006-07 to 2009-10 are revised as per TCD meeting held in December, 2011, Department of AH, D\&P, Ministry of Agriculture, Gol., (Source: http://www.nddb.org/English/Statistics/Pages/Milk-Production-States.aspx. Retrieved on Nov, 29, 2015)

Table 4.3
Per Capita Availability of Milk by States (gms/day)

| State | $\begin{aligned} & \hline 94- \\ & 95 \end{aligned}$ | $\begin{aligned} & \hline 95- \\ & 97 \end{aligned}$ | $\begin{aligned} & 96- \\ & 97 \end{aligned}$ | $\begin{aligned} & \hline 97- \\ & 98 \end{aligned}$ | $\begin{aligned} & \hline 98- \\ & 99 \end{aligned}$ | $\begin{aligned} & \hline 99- \\ & 00 \end{aligned}$ | $\begin{aligned} & \hline 00- \\ & 01 \end{aligned}$ | $\begin{aligned} & \hline 01- \\ & 02 \end{aligned}$ | $\begin{aligned} & \hline 02- \\ & 03 \end{aligned}$ | $\begin{aligned} & 03- \\ & 04 \end{aligned}$ | $\begin{aligned} & \hline 04- \\ & 05 \end{aligned}$ | $\begin{aligned} & \hline 05- \\ & 06 \end{aligned}$ | $\begin{aligned} & 06- \\ & 07 \end{aligned}$ | $\begin{aligned} & \hline 07- \\ & 08 \end{aligned}$ | $\begin{aligned} & \hline 08- \\ & 09 \end{aligned}$ | $\begin{aligned} & 09- \\ & 10 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All India | 191 | 197 | 202 | 207 | 213 | 217 | 220 | 225 | 230 | 231 | 233 | 241 | 246 | 252 | 258 | 273* |
| Andhra <br> Pradesh | 163 | 162 | 169 | 167 | 185 | 192 | 194 | 209 | 231 | 238 | 250 | 260 | 269 | 298 | 316 | 342 |
| Arunachal <br> Pradesh | 64 | 119 | 115 | 109 | 119 | 119 | 102 | 105 | 112 | 109 | 114 | 113 | 114 | 74 | 55 | 59 |
| Assam | 79 | 95 | 79 | 79 | 79 | 71 | 69 | 70 | 71 | 71 | 72 | 72 | 70 | 70 | 70 | 69 |
| Bihar | 95 | 101 | 100 | 98 | 121 | 119 | 80 | 88 | 92 | 100 | 147 | 154 | 163 | 170 | 172 | 175 |
| Goa | 72 | 73 | 72 | 71 | 88 | 92 | 89 | 91 | 91 | 93 | 110 | 105 | 100 | 101 | 99 | 96 |
| Gujarat | 277 | 229 | 289 | 290 | 290 | 297 | 280 | 317 | 317 | 330 | 344 | 349 | 374 | 385 | 402 | 418 |
| Himachal <br> Pradesh | 324 | 329 | 316 | 314 | 347 | 349 | 335 | 341 | 339 | 337 | 378 | 373 | 370 | 365 | 365 | 342 |
| Jammu \& Kashmir | 210 | 276 | 302 | 345 | 353 | 362 | 348 | 367 | 365 | 363 | 364 | 353 | 325 | 372 | 378 | 382 |
| Karnataka | 173 | 185 | 191 | 216 | 233 | 241 | 233 | 249 | 229 | 190 | 194 | 197 | 200 | 203 | 215 | 226 |
| Kerala | 190 | 198 | 199 | 204 | 221 | 227 | 219 | 234 | 203 | 173 | 169 | 171 | 172 | 183 | 197 | 209 |
| Madhya <br> Pradesh | 199 | 199 | 192 | 194 | 262 | 261 | 211 | 240 | 236 | 233 | 233 | 262 | 259 | 264 | 271 | 278 |
| Maharashtra | 156 | 163 | 161 | 161 | 168 | 168 | 162 | 172 | 172 | 172 | 176 | 178 | 182 | 184 | 188 | 190 |
| Manipur | 88 | 80 | 75 | 74 | 87 | 88 | 81 | 86 | 85 | 85 | 90 | 92 | 82 | 91 | 90 | 88 |
| Meghalaya | 77 | 83 | 74 | 73 | 76 | 76 | 74 | 78 | 78 | 78 | 81 | 82 | 82 | 84 | 83 | 83 |
| Mizoram | 32 | 31 | 29 | 53 | 65 | 57 | 42 | 43 | 45 | 44 | 46 | 43 | 45 | 48 | 47 | 29 |
| Nagaland | 91 | 88 | 86 | 82 | 69 | 69 | 69 | 78 | 78 | 83 | 90 | 96 | 85 | 57 | 57 | 96 |
| Orissa | 47 | 49 | 54 | 53 | 56 | 66 | 64 | 69 | 68 | 71 | 92 | 95 | 100 | 113 | 110 | 112 |
| Punjab | 797 | 847 | 823 | 861 | 883 | 902 | 854 | 892 | 895 | 898 | 917 | 943 | 961 | 956 | 955 | 944 |
| Rajasthan | 280 | 294 | 322 | 348 | 356 | 367 | 353 | 376 | 368 | 371 | 376 | 387 | 408 | 408 | 399 | 395 |
| Tamil Nadu | 175 | 180 | 183 | 185 | 199 | 210 | 211 | 219 | 198 | 198 | 204 | 231 | 232 | 232 | 234 | 237 |
| Tripura | 33 | 35 | 36 | 45 | 69 | 69 | 64 | 77 | 66 | 68 | 70 | 70 | 71 | 72 | 74 | 77 |
| Uttar Pradesh | 209 | 216 | 215 | 221 | 238 | 243 | 223 | 241 | 245 | 250 | 254 | 262 | 267 | 274 | 278 | 283 |
| West Bengal | 123 | 130 | 123 | 123 | 125 | 123 | 116 | 120 | 120 | 120 | 124 | 126 | 126 | 129 | 131 | 133 |
| A\&N Islands | 215 | 173 | 170 | 169 | 179 | 184 | 165 | 177 | 195 | 183 | 165 | 135 | 155 | 149 | 154 | 137 |
| Chandigarh | 142 | 143 | 148 | 147 | 139 | 134 | 129 | 131 | 127 | 127 | 115 | 116 | 124 | 108 | 101 | 95 |
| Dadra \& Nagar Haveli | 144 | 87 | 89 | 86 | 106 | 13 | 97 | 100 | 97 | 95 | 45 | 53 | 54 | 47 | 91 | 86 |
| Daman \& Diu | 25 | 25 | 16 | 17 | 26 | 144 | 17 | 17 | 17 | 16 | 10 | 11 | 13 | 12 | 15 | 15 |
| Delhi | 66 | 69 | 61 | 59 | 61 | 60 | 56 | 58 | 57 | 56 | 54 | 54 | 48 | 46 | 65 | 72 |
| Lakshadweep | 53 | 54 | 107 | 97 | 72 | 47 | 88 | 90 | 87 | 43 | 45 | 64 | 76 | 74 | 84 | 84 |
| Pondicherry | 98 | 90 | 44 | 43 | 109 | 106 | 102 | 104 | 101 | 107 | 106 | 108 | 117 | 107 | 101 | 96 |
| Chhattisgarh |  |  |  |  | - | - | 100 | 105 | 103 | 102 | 103 | 103 | 101 | 103 | 106 | 110 |
| Uttaranchal |  |  |  |  | - | - | 323 | 344 | 339 | 365 | 364 | 361 | 358 | 355 | 351 | 387 |
| Jharkhand |  |  |  |  | - | - | 90 | 96 | 94 | 92 | 127 | 126 | 131 | 132 | 132 | 133 |
| Source : Department of Animal Husbandry, Dairying \& Fisheries, Ministry of Agriculture, Gol |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (Source: http://www.nddb.org/English/Statistics/Pages/Milk-Production-States-Capital.aspx), Updated : Feb 29,2012 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Figure 4.5
Livestock Population in India by Species (In Million Numbers)

(Source:http://www.nddb.org/English/Statistics/Pages/Population-India-Species.aspx,Retrieved on Feb 29, 2012)

Table 4.4
Change in Livestock Population by Species Annual Growth rate (percent)

| Species | $1956-61$ | $161-66$ | $1966-72$ | $1972-77$ | $1977-82$ | $1982-87$ | $1987-92$ | $1993-97$ | $1997-03$ | $2003-07$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Cattle | 2.04 | 0.07 | 0.24 | 0.19 | 1.35 | 0.74 | 0.49 | -0.56 | -1.18 | 1.83 |
| Adult <br> Female <br> Cattle | 1.52 | 0.31 | 0.61 | 0.45 | 1.63 | 0.95 | 0.73 | 0.02 | 0.02 | 3.12 |
| Buffalo | 2.66 | 0.69 | 1.61 | 1.55 | 2.93 | 1.71 | 2.08 | 1.32 | 1.45 | 1.84 |
| Adult <br> Female <br> Buffalo | 2.29 | 0.89 | 2.40 | 1.82 | 0.76 | 3.78 | 2.29 | 1.32 | 1.44 | 1.68 |
| Total <br> Bovines | 2.18 | 0.21 | 0.56 | 0.53 | 1.62 | 1.00 | 0.93 | 0.00 | -0.33 | 1.83 |
| Sheep | 0.45 | 1.07 | -1.16 | 0.50 | 3.53 | -1.29 | 2.13 | 2.51 | 1.12 | 3.87 |
| Goat | 1.91 | 1.19 | 0.88 | 2.29 | 4.73 | 2.69 | 0.90 | 1.26 | 0.22 | 3.10 |
| Horses <br> And <br> Ponies | -2.82 | -3.29 | -3.93 | 0.00 | 0.00 | -2.33 | 0.50 | 0.24 | -1.68 | -4.98 |
| Camels | 2.38 | 2.13 | 1.92 | 0.00 | -0.37 | -1.53 | 0.59 | -2.45 | -5.94 | -4.83 |
| Pigs | 1.20 | -0.78 | 6.65 | 1.95 | 5.76 | 1.09 | 3.77 | 0.77 | 0.29 | -4.74 |
| Mules | 4.56 | 9.86 | 0.00 | 2.38 | 7.63 | 5.51 | 2.25 | 2.98 | -4.21 | -6.07 |
| Donkeys | 0.00 | 0.00 | -1.89 | 0.00 | 0.40 | -1.21 | 0.21 | -1.93 | -4.92 | -9.40 |
| Yak | NC | 8.45 | 5.92 | 26.58 | 0.00 | -21.00 | 8.45 | 0.00 | 0.00 | 6.36 |
| Mithun | NC | NC | NC | NC | NC | NC | NC | 3.71 | 7.51 | -1.25 |
| Total |  |  |  |  |  |  |  |  |  |  |
| Livestock |  |  |  |  |  |  |  |  |  |  |

(Source:http://www.nddb.org/English/Statistics/Pages/Change-Livestock-Population-
Species.aspx)

Table 4.5
Per Capita Monthly Expenditure in Milk \& Milk Products (July 2000June.2010)

| $\begin{aligned} & \hline \text { NSS } \\ & \text { Round } \end{aligned}$ | Milk and Milk Products | Meat, Egg, Fish | Total Food | Total NonFood | Total Exp. | Average Size of Household |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| July 2004-June 2005 |  |  |  |  |  |  |
| Rural | 47.31 | 18.60 | 307.60 | 251.19 | 558.78 | 5.08 |
| Urban | 83.30 | 28.47 | 447.41 | 604.95 | 1058.36 | 4.55 |
| July 2009-June 2010 |  |  |  |  |  |  |
| Rural | 80.55 | 49.89 | 600.36 | 453.29 | 1053.64 | NA |
| Urban | 137.01 | 71.98 | 88.083 | 1103.63 | 1984.46 | NA |

NA : Not Available
Source: Level \& Pattern of consumer expenditure, Various issues, National Sample Survey Organisation,
Ministry of Statistics \&Programme Implementation, GOI. Last Updated : Feb 29, 2012
(Source:http://www.nddb.org/English/Statistics/Pages/Expenditure-Milk.aspx)

Table 4.6
Share of Agriculture \& Livestock Sector in Gross Domestic Products

| (At current prices in Crores) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{gathered} \hline \text { GDP } \\ \text { (Total) } \end{gathered}$ | GDP (Agriculture) |  | GDP (Livestock Section) |  |
|  |  | \$ | percent Share | \$ | percent Share |
|  |  | - | - | - | - |
| 2007-08 | 4,581,422 | 716,276 | 15.63 | 169,296 | 3.70 |
| 2008-09 | 5,282,086 | 799,517 | 15.14 | 188,732 | 3.57 |
| 2009-10 | 6,133,230 | 939,922 | 15.33 | 241,177 | 3.93 |
| 2010-11 | 7,266,966 | 113,2048 | 15.58 | 276,105 | 3.80 |
| 2011-12 | 8,353,495 | 126,8081 | 15.18 | 327,838 | 3.92 |
| Source : National Accounts Statistics-2011;Central Statistical Organisation; Gol, Last updated : Nov, 29, 2015 |  |  |  |  |  |

(Source:http://www.nddb.org/English/Statistics/Pages/Livestock-Sector-GDP.aspx)

Figure 4.6
Index number of Wholesale price

(Source:http://www.nddb.org/English/Statistics/Pages/Index-number-of-Wholesale-prices.aspx,
Last updated: Nov, 29, 2015)

### 4.2.5 Dairy Development in Maharashtra ${ }^{112}$

During the Second World War, hunger in pregnant women and youngsters and nourishment deficiency urged the Municipal Corporation of Mumbai to begin milk appropriation framework. Every female used to get half liter of milk. By the end of year 1946 this plan was functional. Though the municipal operation made progress, it was facing following problems:

1) There were no offices for heating up the milk.
2) Crude milk was supplied to British warriors, officers, and workers.
3) They made it a wellbeing issue and not drinking the milk.
4) Unhygienic condition of cow sheds and nursing of steers was done in unscientific way.
These problems were considered and restored the dairy cattle shed of Mumbai in a more experimental manner, And to support clean milk creation in the year 1949, Arey Milk Colony was set up. An aggregate of 16,000 buffalo from Mumbai were moved in 32 dairy cattle sheds at Aarey Milk Colony. To empower the nationals to get the sanitized milk, in the year 1951, Asia's first dairy at Aarey was built up. The head of Dairy Development Department was the Milk Commissioner. To guarantee the consistent advancement of Dairying, the Government founded the Dairy

Development Department in the year 1958. From 1960, milk from provincial territories was gathered and supplied to the urban zones. To process this milk the Worli Dairy was set up in the year 1961 and Kurla Dairy was set up in the year 1975. On the same note, Government Chilling Centers and Government Milk plants were set up in different locale. Today the milk collection is 113 LLPD where as it was only 1 LLPD in 1960.

## Regulatory Machinery

The head of Dairy Development Commissioner is the leader of the Department and 5 Dy. Dairy Development Commissioners attempt departmental exercises.

Work of dairy department includes:

1) Planning of milk creation
2) Acquirement
3) Preparing
4) Quality control
5) Dairy Engineering and Maintenance

Every milk plant has a General Manager or Dairy Manager. The entire regulatory structure cares for the work of obtainment/preparing/circulation of milk and coordination with Co-agent unions/sanghs. At Mumbai, there are three plants operating to cater to the need of the consumer's like Aarey, Worli and Kurla dairy. It has 3 branches situated at Aarey, Dapchari, and Palghar. Controller of Cattle controls the steers' populace inside of Mumbai and uptown.

## Maharashtra Rajya Sahakari Dudh Mahasangh, Maryadit (MRSDMM) ${ }^{113}$

MRSDMM is Apex Federation of District/Taluka milk unions built up to actualize the Operation Flood program in the condition of Maharashtra.

- To get milk from District/Taluka milk unions at gainful rates
- To circulate sensitized milk at reasonable rates to buyers
- To be a middleman in District/Taluka milk union and buyers
- To use advanced technology by using modern investment
- To uplift or boost the farmers in rural areas


## Orientation of MRSDMM:

- Established in July 9, 1967.
- Presently it is having 103 part unions
- More than 24,000 essential milk social orders
- Incorporate approx. 27,000 ladies persons.
- MAHANAND DAIRY (18-08-1983) is the unit keeps running by the MRSDMM.
- Milk limit of 4 LLPD and extended up to 6 LLPD in the year 1997-98.
- Mahanand Dairy is appropriating 4.20 Lacs liters milk for each day in Mumbai with the assistance of one pressing terminal deliberately situated at New Mumbai (Capacity 3.00 LLPD)
- The market for Mahanand Brand name in the state is 8.5 LLPD including the offer of milk in Konkan ( 30,000 ltrs), Pune ( 45,000 ltrs) and Nagpur (50,000 ltrs) locale.
- In the year 2002-03 the MRSDMM has assumed control over the Government Milk Scheme, Latur (Govt. Of Maharashtra). At present it offers around 30,000 liters for every day of milk from Latur Dairy Plant.

Table 4.7
Regions of Dudh development program in Maharashtra

| 1 | Nashik | 2 | Ahmednagar | 3 | Dhule |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 4 | Nandurbar | 5 | Pune | 6 | Satara |
| 7 | Sangli | 8 | Solapur | 9 | Usmanabad |
| 10 | Latur | 11 | Beed | 12 | Nanded |
| 13 | Aurangbad | 14 | Buldhana | 15 | Wardha |
| 16 | Bhandara | 17 | Nagpur | 18 | Jalgaon |
| 19 | Kolhapur |  |  |  |  |

(Source: http://www.mahanand.in/mrsdmm.jsp) (Retrieved on Jan.2015)
The project ensured that exclusive facilitation was provided to female cooperatives set up in the form of milk testing kits and first aid boxes to each unit established. For guaranteeing opportune installment to the milk makers, working capital is given in real money. Similarly, to facilitate buying of milch creatures, seed cash is given to all social orders in real money. Other than this, satisfactory and compelling preparation is given to accomplish dynamic interest in the choice making procedure of the foundation

The Financial freedom was acquiring by their own wage. A reasonable level of sharpening in the field of health, training, legitimate education and so on was also done. Solidarity of reason was the soul of solidarity. At this point, around 350 Women Dairy Co.op. Social orders, 20,000 recipients and more than 53,000 liters for every day, bringing Rs. 18 crores for every annum.

## Mahanand Dairy

Mahanand dairy is one of the biggest dairy of milk in Asia and also processes and distributes cow milk. The dairy tried to set up or make modern development in engineering field. Mahanand boosted "Parijatak" plan. It is an inescapable plan which ties up on its mother; it is a security on which everybody might relate. Indian heritage was kept sustained by Mahanand dairy. Today it distributes 8. 5 lac Liters milk for every day through 722 milk distributors.

Konkan District Plant been made to providing for exceptional stimulus for giving extraordinary stimulus to improvement of retrograde area. At present offering something like 30,000 Ltrs, about milk for every day starting with Konkan journal undertaking.

Pune District Plant may be secured with supply Mahanand milk of the enormous number previously, at present offering 45,000Ltrs, from claiming milk for every day with Pune dairy project.

Nagpur District Plant will be made with give acceptable uncommon stimulus will retrograde area from claiming Vidarbh as a rule What's more Nagpur specifically. At present offer around 50,000Ltrs.of milk from Nagpur dairy.

Wardha District Plant need been began to provide uncommon help of the dairy improvement movement for Amravati area and the plant for Wardha region milk Union need been tackled rental accumulation foundation so as on help restoration about Wardha milk union for fiscal aid manifestation. At present offer 15,000 Ltrs. of milk.

Latur District Plant throughout that monetary year 2002-03 the MRSDMM need assumed control the administration milk plan Latur (GoM) around long expression terms of the lease groundwork ( 30 years). The Mahanand Latur dairy plant need been off on providing exceptional backing should create dairy movement Previously, Marathwada district. At present Mahanand may be offering around 30, 000 liters for every day from claiming milk starting with Latur dairy plant.

Table 4.8
Co-Op Sangh Procurement, Distribution etc.-February 2012 (in Lakh Lit./Day)

| Region | Sangh | Procurement |  |  | Distribution |  | $\begin{array}{c}\text { Export/ } \\ \text { Mahanand }\end{array}$ | Conversion. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :--- | :---: | :---: |
|  |  | C/M | B/M | Total | Local | Bulk | Total |  |  |
| Ar.bad | TOTAL | 2.588 | 0 | 2.588 | 0.538 | 0.257 | 0.795 | 0 | 0 |
| N.Mumbai | TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.138 |$]$

(Source:http://dairy.maharashtra.gov.in/index.php?option=com_coop\&task=disdisplay\&month=
2\&year=2012\&lang=en) (Retrieved on Jan.2015)

## DAILY AVERAGE OF MILK PROCUREMEMNT OF REGIONS

Table 4.9
Milk Procurement of Regions in year 2008 (fig. in 1000 Ltrs)

| Region | January | February | march | April | May | June | July | August | September | October | November | December |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pune | 12 | 20 | 20 | 19 | 24 | 38 | 48 | 10 | 11 | 12 | 24 | 90 |
| Nashik | 207 | 019 | 217 | 218 | 231 | 212 | 160 | 93 | 130 | 160 | 246 | 240 |
| Aurangabad | 160 | 166 | 173 | 168 | 173 | 146 | 123 | 104 | 128 | 123 | 149 | 152 |
| Konkan | 13 | 11 | 9 | 7 | 6 | 7 | 9 | 19 | 15 | 20 | 18 | 13 |
| Amravati | 49 | 55 | 48 | 41 | 38 | 28 | 19 | 18 | 21 | 23 | 29 | 33 |
| Nagpur | 70 | 74 | 50 | 61 | 51 | 46 | 47 | 29 | 30 | 37 | 48 | 52 |
| Total | 511 | 545 | 517 | 514 | 523 | 477 | 406 | 273 | 335 | 375 | 541 | 580 |

Table 4.10
Milk Procurement of Regions in Year 2009 (fig. in 1000 Ltrs)

| Region | January | February | March | April | May | June | July | August | September | October | November | December |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Pune | 174 | 155 | 64 | 38 | 29 | 18 | 15 | 16 | 15 | 41 | 24 | 23 |
| Nashik | 313 | 320 | 294 | 259 | 212 | 86 | 80 | 122 | 133 | 169 | 134 | 92 |
| Aurangabad | 168 | 178 | 175 | 172 | 148 | 103 | 90 | 89 | 88 | 89 | 88 | 89 |
| Konkan | 11 | 9 | 8 | 6 | 5 | 6 | 7 | 9 | 14 | 18 | 55 | 12 |
| Amravati | 40 | 39 | 35 | 25 | 16 | 11 | 9 | 9 | 10 | 11 | 13 | 18 |
| Nagpur | 60 | 58 | 55 | 38 | 23 | 18 | 17 | 17 | 21 | 32 | 32 | 44 |
| Total | 766 | 759 | 631 | 538 | 433 | 442 | 218 | 262 | 281 | 360 | 346 | 278 |

Table 4.11
Milk Procurement of Regions in Year 2010 (fig. in 1000 Ltrs)

| Region | January | February | march | April | May | June | July | August | September | October | November | December |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Pne | 18 | 16 | 16 | 14 | 16 | 30 | 50 | 66 | 72 | 68 | 64 | 49 |
| Nashik | 70 | 40 | 41 | 63 | 59 | 73 | 95 | 94 | 60 | 31 | 43 | 25 |
| Aurangabad | 92 | 93 | 85 | 84 | 83 | 76 | 76 | 76 | 65 | 65 | 68 | 73 |
| Konkan | 10 | 7 | 5 | 5 | 4 | 5 | 6 | 9 | 12 | 16 | 15 | 12 |
| Amravati | 19 | 19 | 14 | 12 | 7 | 5 | 5 | 4 | 4 | 5 | 6 | 7 |
| Nagpur | 48 | 48 | 40 | 35 | 28 | 23 | 26 | 15 | 15 | 18 | 32 | 29 |
| Total | 257 | 223 | 201 | 213 | 197 | 212 | 258 | 264 | 228 | 203 | 228 | 195 |

Table 4.12
Milk Procurement of Regions in Year 2011 (fig. In 1000 Ltrs)

| Region | January | February | march | April | May | June | July | August | September | October | November | December |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Pne | 37 | 21 | 13 | 18 | 15 | 20 | 16 | 14 | 13 | 12 | 12 | 12 |
| Nashik | 31 | 27 | 22 | 29 | 42 | 41 | 20 | 16 | 13 | 12 | 17 | 18 |
| Aurangabad | 78 | 79 | 75 | 75 | 72 | 65 | 57 | 55 | 58 | 63 | 66 | 69 |
| Konkan | 11 | 8 | 6 | 5 | 4 | 5 | 7 | 9 | 12 | 15 | 14 | 11 |
| Amravati | 10 | 8 | 8 | 8 | 7 | 6 | 5 | 5 | 6 | 7 | 9 | 14 |
| Nagpur | 35 | 32 | 32 | 29 | 25 | 21 | 24 | 18 | 17 | 18 | 28 | 35 |
| Total | 202 | 175 | 156 | 164 | 165 | 158 | 129 | 117 | 119 | 127 | 146 | 159 |

Table 4.13
Private Dairy (Registered/Unregistered)-District wise Procurement\&
Distribution for March 2012 in Lakh Liter/ Day

| Region | District | Procurement |  |  | Distribution |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | Registered | Unregistered | Total | Registered | Unregistered | Total |
| Nashik | Nandurbar | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Nasik | 0.48 | 0.46 | 0.94 | 0.09 | 0.46 | 0.55 |
|  | A'nagar | 13.72 | 4.08 | 17.8 | 10.04 | 4.08 | 14.12 |
|  | Dhule | 0.64 | 0 | 0.64 | 0.64 | 0 | 0.64 |
|  | Jalgaon | 0.68 | 0.78 | 0.46 | 0.68 | 0.78 | 1.46 |
|  | TOTAL | 15.52 | 5.32 | 20.84 | 11.45 | 5.32 | 16.77 |
|  | Pune | 8.99 | 1.17 | 10.16 | 8.99 | 1.17 | 10.16 |
|  | Satara | 9.84 | 1.18 | 11.02 | 9.84 | 1.18 | 11.02 |
|  | Solapur | 1.7 | 3.53 | 5.23 | 1.7 | 3.53 | 5.23 |
|  | Kolhapur | 3.59 | 0.08 | 3.67 | 3.59 | 0.08 | 3.67 |
| Nagpur | Nagpur | 0.75 | 0 | 38.52 | 31.34 | 7.18 | 38.52 |
|  | Vardha | 0.2 | 0 | 0.75 | 2.15 | 0 | 2.15 |
|  | Chandrapur | 0.07 | 0 | 0.2 | 0.1 | 0 | 0.1 |
|  | Gadchiroli | 0.03 | 0 | 0.07 | 0.11 | 0 | 0.11 |
|  | Gondiya | 0.17 | 0 | 0.03 | 0.02 | 0 | 0.02 |
|  | Bhandra | 0.35 | 0.52 | 0.17 | 0.01 | 0 | 0.01 |
|  | TOTAL | 2.57 | 0.52 | 1.87 | 0 | 0 | 0 |
| TOTAL |  | $\mathbf{4 9 . 4 3}$ | $\mathbf{1 3 . 0 2}$ | $\mathbf{6 2 . 4 5}$ | $\mathbf{4 5 . 1 8}$ | $\mathbf{1 2 . 5}$ | $\mathbf{5 7 . 6 8}$ |

(Source:http://dairy.maharashtra.gov.in/index.php?option=com_caldist\&task=disdisplay\&month=3\&ye ar=2012\&lang=en) (Retrieved on Jan.2015)

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Table 4.14
Collection and sale of milk by Cooperative Dairies for the year 2005-06.

| SALE 2005-2006 |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
| Dairy | Local | Outside <br> preview | Use for <br> Bi- <br> products | Bulk+Mahanand+Outside <br> state +Toned +Seperation | Total <br> collection |  |
| Gokul | 1015672 | 3816424 | 3591 | 1507177 | 6342864 |  |
| Avg. | 84639 | 318035 | 299 | 125598 | 528572 |  |
| Warana | 766028 | 1316642 | 257276 | 2699886 | 5039832 |  |
| Avg. | 63836 | 109720 | 21440 | 224990.5 | 419986 |  |
| Mayur | 20093 | 135431 | 26102 | 512166 | 693792 |  |
| Avg. | 1674 | 11286 | 2175 | 42681 | 57816 |  |
| Shirol | 0 | 22209 |  | 0 | 22209 |  |
| Avg. | 0 | 1851 |  | 0 | 1851 |  |
| Mahalaxmi |  | 256706 |  | 92601 | 349307 |  |
| Avg. |  | 21392 |  | 7717 | 29109 |  |
| Year Total | 1801793 | 5547412 | 286969 | 4811830 | 12447996 |  |
| Year Avg. | 150149 | 462284 | 23914 | 400986 | 1037333 |  |

Table 4.15
Collection and sale of milk by Cooperative Dairies for the year 2006-07.


Table 4.16
Collection and sale of milk by Cooperative Dairies for the year 2007-08.

| SALE 2007-2008 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dairy | Local | Outside preview | Use for Biproducts | $\begin{aligned} & \text { Bulk+Mahanand+Outside } \\ & \text { state + Toned } \\ & + \text { Seperation } \end{aligned}$ | Total collection |
| Gokul | 1113905 | 3153163 | 4510 | 1828685 | 6100263 |
| Avg. | 92825 | 262763 | 376 | 152391 | 508355 |
| Warana | 775566 | 1202288 | 595976 | 1933202 | 4507032 |
| Avg. | 64630 | 100191 | 49665 | 161100 | 375586 |
| Mayur | 106147 | 21473 | 2162 | 287688 | 417470 |
| Avg. | 8846 | 1789 | 180 | 23974 | 34789 |
| Mahalaxmi | 234809 | 484826 | 2573 | 90019 | 812227 |
| Avg. | 19567 | 40403 | 214 | 7500 | 67685 |
| Year Total | 2230427 | 4861750 | 605221 | 4139594 | 11836992 |
| Year Avg. | 185868 | 405146 | 50435 | 344966 | 986415 |

Table 4.17
Collection and sale of milk by Cooperative Dairies for the year 2008-09.

| SALE 2008-2009 |  |  |  |  |  |  |
| :--- | ---: | ---: | :--- | :--- | :--- | :--- |
| Dairy | Local | Outside <br> preview | Use for <br> Bi- <br> products | Bulk+Mahanand+Outside <br> state +Toned <br> +Seperation | Total <br> collection |  |
| Gokul | 1269918 | 4338893 | 5627 | 1330823 | 6945261 |  |
| Avg. | 105827 | 361574 | 469 | 110902 | 578772 |  |
| Warana | 859475 | 1172885 | 808360 | 1937720 | 4778440 |  |
| Avg. | 71623 | 97740 | 67363 | 161477 | 398203 |  |
| Mayur | 15612 | 27665 | 6422 | 248489 | 298188 |  |
| Avg. | 1301 | 2305 | 535 | 20707 | 24849 |  |
| Mahalaxmi | 191220 | 407628 | 5834 | 49324 | 654006 |  |
| Avg. | 15935 | 33969 | 486 | 4110 | 54501 |  |
| Year Total | 2160617 | 5947071 | 826243 | 3566356 | 12675895 |  |
| Year Avg. | 180051 | 495589 | 68854 | 297196 | 1056324 |  |

Table 4.18
Collection and sale of milk by Cooperative Dairies for the year 2009-10.

| SALE 2009-2010 |  |  |  |  |  |  |
| :--- | ---: | ---: | :--- | :--- | :--- | ---: |
| Dairy | Local | Outside <br> preview | Use for <br> Bi- <br> products | Bulk+Mahanand+Outside <br> state +Toned <br> +Seperation | Total <br> collection |  |
| Gokul | 1306458 | 4367058 | 10179 | 1767676 | 7451371 |  |
| Avg. | 108871 | 363922 | 848 | 147306 | 620947 |  |
| Warana | 886368 | 1214006 | 700343 | 1803625 | 4604342 |  |
| Avg. | 73864 | 101167 | 58362 | 150302 | 383695 |  |
| Mayur | 7245 | 28618 | 3254 | 134082 | 173199 |  |
| Avg. | 603 | 2385 | 271 | 11174 | 14433 |  |
| Mahalaxmi | 108820 | 199395 | 4417 | 85369 | 398001 |  |
| Avg. | 9068 | 16616 | 368 | 7114 | 33167 |  |
| Year Total | 2308891 | 5809077 | 718193 | 3790752 | 24682626 |  |
| Year Avg. | 192406 | 484089 | 59849 | 315897 | 1052244 |  |

Table 4.19
Collection and sale of milk by Cooperative Dairies for the year 2010-11.

| SALE 2010-2011 |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | :--- | ---: | :---: |
| Dairy | Local | Outside <br> preview | Use for <br> Bi- <br> products | Bulk+Mahanand+Outside <br> state +Toned <br> +Seperation | Total <br> collection |  |
| Gokul | 1438779 | 4702406 | 18044 | 1175987 | 7335216 |  |
| Avg. | 119898 | 391867 | 1504 | 97999 | 611268 |  |
| Warana | 583047 | 2117857 | 565620 | 1569480 | 4836004 |  |
| Avg. | 48587 | 176488 | 47135 | 130790 | 403000 |  |
| Mahalaxmi | 53924 | 79119 | 2587 | 10355 | 145985 |  |
| Avg. | 4493 | 6593 | 216 | 864 | 12165 |  |
| Year Total | 2075750 | 6899382 | 586251 | 2755822 | 12317205 |  |
| Year Avg. | 172979 | 574948 | 48855 | 229652 | 1026434 |  |

Table 4.20
Collection and sale of milk by Cooperative Dairies for the year 2011-12.

| SALE 2011-2012 |  |  |  |  |  |  |
| :--- | ---: | ---: | :--- | ---: | ---: | ---: |
| Dairy | Local | Outside <br> preview | Use for <br> Bi- <br> products | Bulk+Mahanand+Outside <br> state +Toned <br> +Seperation | Total <br> collection |  |
| Gokul | 1546618 | 4935178 | 14100 | 2184899 | 8680795 |  |
| Avg. | 128885 | 411265 | 1175 | 182075 | 733400 |  |
| Warana | 749640 | 2274409 | 531149 | 2302339 | 5857537 |  |
| Avg. | 62470 | 189534 | 44262 | 191862 | 488128 |  |
| Year Total | 2296258 | 7209587 | 545249 | 4487238 | 15538332 |  |
| Year Avg. | 191355 | 600799 | 45437 | 373937 | 1211528 |  |

(Table No: 4.14 to 4.20, Sources: Dairy Development Office, Kolhapur) (Retrieved on Jan.2015)

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## CHAPTER-5

## DATA PRESENTATION AND ANALYSIS

Table 5.1 Age-wise classification of sample household
Statistics of the sample


Age distribution

|  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | ---: | ---: | ---: | ---: |
| Valid to 30 years | 182 | 36.4 | 36.4 | 36.4 |
|  | 31-40 years | 224 | 44.8 | 44.8 |

(Source: Primary Data)
Figure 5.1 Age-wise classification of sample household


Interpretation: The SPSS labeled output "Age" shows frequency distribution and bar chart for the variable "Age of the respondents", Out of the 500 respondents surveyed, age-wise representation shows that majority of them belong to the age group of 31 to 40
(44.8 percent) followed by "up to 30 " ( 36.4 percent), 41 to 50 ( 12.6 percent) and 51 and above ( 6.2 percent) age group.

Conclusion: The majority of the respondents belonged to the age category of 31 to 40 years i.e. 44.8 percent, followed by the respondent belonged to the age category up to 30 (36.4 percent).

Table 5.2 Sex-wise classification of sample households
Statistics of the sample
Sex


Sex wise classification

|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | Male | 331 | 66.2 | 66.2 | 66.2 |
|  | Female | 169 | 33.8 | 33.8 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Figure 5.2 Sex-wise classification of sample household


Interpretation: The SPSS output labeled "Sex" shows frequency distribution and Pie chart for the variable "Sex of the respondent". Out of the 500 respondents surveyed, it can be noticed that 66.20 percent of the respondents represent males and 33.80 percent of the respondents represent female.
Conclusion: The percentage of male respondents in the study is more than the female respondent's percentage.

Table 5.3 Education-wise classification of sample households Statistics of the sample
Education


Education

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | Illiterate | 3 | . 6 | . 6 | . 6 |
|  | Primary | 5 | 1.0 | 1.0 | 1.6 |
|  | High school | 75 | 15.0 | 15.0 | 16.6 |
|  | SSC | 83 | 16.6 | 16.6 | 33.2 |
|  | HSC | 91 | 18.2 | 18.2 | 51.4 |
|  | Graduation | 203 | 40.6 | 40.6 | 92.0 |
|  | Post Graduation | 40 | 8.0 | 8.0 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Figure 5.3 Education-wise classification of sample household


Interpretation: The above analysis shows frequency distribution and bar chart for the variable "Education of the respondents". Out of the 500 respondents surveyed, 40.6 percent of them have Graduation degree, 18.8 percent of them are HSC, 16.6 percent of them are SSC, 15 percent of them are High School, 8 percent of them are Post Graduates, 1 percent is primary and 0.6 percent is illiterate.
Conclusion: Most of the respondents were Graduates followed by HSC qualification.

Table 5.4 Occupation-wise classification of sample household

Statistics of the sample
Occupation


Occupation

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | salaried (elite position) | 74 | 14.8 | 14.8 | 14.8 |
|  | self employed (trading) | 17 | 3.4 | 3.4 | 18.2 |
|  | self employed (large business) | 53 | 10.6 | 10.6 | 28.8 |
|  | sales personnel | 14 | 2.8 | 2.8 | 31.6 |
|  | salaried (teachers and professors) | 14 | 2.8 | 2.8 | 34.4 |
|  | self employed (small service providers) | 168 | 33.6 | 33.6 | 68.0 |
|  | Farmers | 22 | 4.4 | 4.4 | 72.4 |
|  | homemaker | 138 | 27.6 | 27.6 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

## (Source: Primary Data)

Figure 5.4 Occupation-wise classification of sample household


Interpretation: The SPSS output labeled "Occupation" shows frequency distribution and bar chart for the variable "Occupation of the respondents". Out of the 500 respondents surveyed, 33.6 percent were self employed (small; service providers), 27.6 percent were homemakers, 14.8 percent were salaried, 50 percent of the respondents
were self employed (large business) and homemakers rest included salaried (2.8 percent), farmers ( 4.4 percent), traders ( 3.4 percent), sales personnel ( 2.8 percent), teachers and professors ( 2.8 percent).

Conclusion: Most of the respondents were self employed.

Table 5.5 Monthly Income-wise classification of sample household

Statistics of the sample

Monthly Income

|  | Valid | 500 |
| :--- | :--- | ---: |
| $N$ | Missing | 0 |


| Monthly Income |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | below Rs. 10000 | 290 | 58.0 | 58.0 | 58.0 |
|  | Rs. 10 001-20 000 | 148 | 29.6 | 29.6 | 87.6 |
|  | Rs. 20 001-30 000 | 52 | 10.4 | 10.4 | 98.0 |
|  | Rs. 30001-40000 | 7 | 1.4 | 1.4 | 99.4 |
|  | above Rs. 40001 | 3 | . 6 | . 6 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)

Figure 5.5 Monthly Income-wise classification of sample household


Interpretation: The SPSS labeled Monthly Income shows frequency distribution and bar chart for the variable "Monthly Income of the respondents". Out of the 500 respondents surveyed, 58 percent had a monthly income below Rs-10000, 29.6 percent
earned a salary between Rs-10,001 to 20, 000, 10.4 earned Rs-20,001 to $30,000,1.4$ percent between Rs-30,001 to 40,000 . Very few i.e. 0.6 percent had a salary above Rs-40,000.

Conclusion: Majority of the respondents had a monthly income of less than Rs-10,000.

Table 5.6 Type of family-wise classification of sample household
Statistics of the sample

(Source: Primary Data)
Figure 5.6 Type of family-wise classification of sample household


Interpretation: The SPSS labeled "Type of family" shows frequency distribution and Pie chart for the variable "Type of family of the respondents". Out of the 500 respondents surveyed, 64.20 percent of respondents belong to Nuclear family and the rest 35.8 percent belong joint family.
Conclusion: Majority of respondents (64.20) belongs to nuclear family. Analysis shows a dominance of nuclear family over joint family.

Table 5.7 Number of family member-wise classification of sample household

(Source: Primary Data)
Figure 5.7 Number of family member-wise classification of sample household


Interpretation: The above analysis shows frequency distribution and bar chart for the variable "Number of family members of the respondents". Out of the 500 respondents surveyed, maximum number of respondents (68.6) belonged to the family size of 4-6 members. This was followed by family size of 1-3 (23 percent) i.e., small family and 4.6 per cent of them belonged to large family (7-9 members), 2.6 percent of respondents
belong to the family where the members are between 10 and 12 and the rest 1.2 percent of respondents belong to the family where the members are between 12 to 15 .
Conclusion: Majority of respondents ( 68.6 percent) belongs to family members in between 4 and 6 , followed by 23 percent with 1 and 3 family members.

Table 5.8 Monthly Expenditure on food items in rupees.
Descriptive Statistics

|  | N | Range | Minimum | Maximum | Mean | Std. Deviation |
| :--- | ---: | ---: | :---: | ---: | ---: | :---: |
|  | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic |
| Cereals | 500 | 500 | 100 | 600 | 259.04 | 70.346 |
| Pulses | 500 | 500 | 100 | 600 | 259.64 | 73.347 |
| Fats and oil | 500 | 1400 | 200 | 1600 | 481.72 | 170.418 |
| Fruits and vegetables | 500 | 2700 | 100 | 2800 | 264.31 | 135.002 |
| Milk and Milk products | 500 | 2680 | 120 | 2800 | 1004.48 | 465.836 |
| RTE Food | 500 | 500 | 100 | 600 | 224.80 | 55.273 |
| Total | 500 | 4900 | 1200 | 6100 | 2493.99 | 817.319 |
| Valid N (list wise) | 500 |  |  |  |  |  |

Descriptive Statistics

| Skewness | Kurtosis |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
|  | Statistic |  | Std. Error | Statistic |
|  | 1.444 | .109 | 2.455 | Std. Error |
|  | 1.716 | .109 | 3.592 | .218 |
|  | 2.885 | .109 | 10.649 | .218 |
|  | 13.524 | .109 | 249.830 | .218 |
| Milk and Milk products | .989 | .109 | .805 | .218 |
| RTE Food | 1.717 | .109 | 5.967 | .218 |
| Total | 1.448 | .109 | 2.238 | .218 |
| Valid N (list wise) |  |  |  |  |

Statistics
Items

| $N$ | Valid | 2494 |
| :--- | :--- | ---: |
|  | Missing | 0 |


| Items |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | cereals | 259 | 10.4 | 10.4 | 10.4 |
|  | fats and oils | 482 | 19.3 | 19.3 | 29.7 |
|  | fruits and vegetables | 264 | 10.6 | 10.6 | 40.3 |
|  | milk and milk product | 1004 | 40.3 | 40.3 | 80.6 |
|  | pulses | 260 | 10.4 | 10.4 | 91.0 |
|  | RTE products | 225 | 9.0 | 9.0 | 100.0 |
|  | Total | 2494 | 100.0 | 100.0 |  |

(Source: Primary Data)

Figure 5.8 Monthly Expenditure on food items in rupees.


Interpretation: The SPSS output labeled "Monthly expenditure on food items" shows frequency distribution and bar chart for the variable "Monthly expenditure on food items of the respondents". Maximum share of the monthly expenditure by the respondents is accounted to milk and milk products ( 40.28 percent), 19.32 percent of the monthly income is spent on fats and oils, 10.6 percent on fruit and vegetables, 10.41 on pulses, 10.9 percent on cereals and 9.01 on RTE products.

Conclusion: A major portion of monthly income is spent on milk and milk products.

Table 5.9 Brand of milk consumed by the respondents
Statistics of the sample
Brand Name


Brand Name

|  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | ---: | ---: | ---: | ---: |
| Valid | Gokul | 451 | 90.2 | 90.2 |

(Source: Primary Data)
Figure 5.9 Brand of milk consume


Interpretation: The SPSS output labeled "Brand name" shows that frequency distribution and bar chart for the variable "brand of milk consumed". Out of 500 respondents surveyed, 90.2 percent consume Gokul, 6.8 percent Warana, 2.4 percent Yalgud and 0.6 percent Shahu.
Conclusion: The most preferred brand is Gokul followed by Warana.

Table 5.10 Quantity of milk consumed

## Statistics of the sample

Quantity


| Quantity |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| Valid | 500 ml | 242 | 48.4 | 48.4 | 48.4 |
|  | $500-1000 \mathrm{ml}$ | 240 | 48.0 | 48.0 | 96.4 |
|  | above 1000ml | 18 | 3.6 | 3.6 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Figure 5.10 Quantity of milk consumed


Interpretation: The SPSS labeled "Quantity of milk consumed" shows frequency distribution and bar chart for the variable "Quantity of milk consumed by the respondents", Out of the 500 respondents interviewed, 48.40 percent prefer 500 ml quantity size and 48 percent prefer between 500 ml to 1000 ml quantity, very few ( 3.6 percent) opt for a quantity above 1000 ml .

Conclusion: Pack size of 500 ml and 500 to 1000 ml are most preferred by the consumers in Kolhapur city.

Table 5.11 Pack Size preferred

## Statistics of the sample

Pack Size


| Pack Size |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|  | 500 ml pack size | 460 | 92.0 | 92.2 | 92.2 |
| Valid | 1000ml pack size | 39 | 7.8 | 7.8 | 100.0 |
|  | Total | 499 | 99.8 | 100.0 |  |
| Missing | System | 1 | . 2 |  |  |
| Total |  | 500 | 100.0 |  |  |

## (Source: Primary Data)

Figure 5.11 Pack Size preferred


Interpretation: The SPSS output labeled "Pack size of milk consumed" shows frequency distribution and bar chart for the variable "Pack size of milk consumed by the respondents". Out of the 499 respondents surveyed, 92.18 percent of respondents prefer milk pack size of 500 ml , whereas 7.816 percent of the respondents prefer milk pack size of 1000 ml .

Conclusion: 500 ml milk pack size is the most preferred pack size in Kolhapur city.

Table 5.12 Frequency of purchasing milk

## Statistics of the sample

Frequency


| Frequency |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: |
|  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |  |  |
| Valid |  |  |  | 92.8 |  |  |
|  | daily | 464 | 92.8 | 92.8 |  |  |

(Source: Primary Data)
Figure 5.12 Frequency of purchasing milk


Interpretation: The above analysis shows frequency distribution and bar chart for the variable "Frequency of milk purchase by the respondents". Out of the 500 respondents surveyed, 92.8 percent buy milk daily, 6.4 percent buy twice in a day size and 0.8 percent buy whenever needed.
Conclusion: Most of respondents buy milk daily.

Table 5.13 Examination of Expiry date on milk pouch
Statistics of the sample
Expiry date


Expiry date

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | always | 132 | 26.4 | 26.4 | 26.4 |
|  | sometimes | 138 | 27.6 | 27.6 | 54.0 |
|  | rarely | 150 | 30.0 | 30.0 | 84.0 |
|  | never | 80 | 16.0 | 16.0 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Figure 5.13 Examination of Expiry date on milk pouch


Interpretation: The SPSS output labeled "Expiry date of milk pouch" shows frequency distribution and bar chart for the variable "Examination of Expiry date of milk pouch by the respondents". Out of the 500 respondents surveyed, 30 percent of respondents rarely examine the expiry date on milk pouch, 27.6 percent examine sometimes, 26.4 percent examine always and 16 percent never examine.
Conclusion: $1 / 4^{\text {th }}$ of the respondents concerned about expiry details of the milk bought.

Table 5.14 Check the Maximum Retail Price (MRP) on milk pouch Statistics of the sample
MRP


(Source: Primary Data)
Figure 5.14 Check the Maximum Retail Price (MRP) on milk pouch


Interpretation: The above output shows frequency distribution and bar chart for the variable "Check Maximum Retail Price on milk pouch by the respondents". Out of the 499 respondents surveyed, 59.52 percent of respondents check the MRP sometimes, 33.27 percent check always, 4.4 percent check never, 2.8 percent rarely.

Conclusion: Majority of respondents check MRP sometimes

Table 5.15 Shopkeeper selling more than the Maximum Retail Price (MRP) on milk pouch
Statistics of the sample


Higher than MRP

|  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |  |
| :--- | :--- | ---: | ---: | ---: | :---: |
| Valid | yes | 15 | 3.0 | 3.0 | 3.0 |
|  | no | 485 | 97.0 | 97.0 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Figure 5.15 Shopkeeper selling more than the Maximum Retail Price (MRP)


Interpretation: The SPSS output labeled higher than MRP shows frequency distribution and bar chart for the variable "Shopkeeper selling higher than MRP on milk pouch by the respondents". Out of the 500 respondents surveyed, 97 percent of respondents agreed that shopkeeper sell milk as per MRP, only percent said they have encountered situations where shopkeepers have sold at a price higher than the MRP.

Conclusion: Most of the shopkeepers sell milk as per MRP.

Table 5.16 Adulteration ever experienced in milk pouch
Statistics of the sample
Adulteration


Adulteration

|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | yes | 12 | 2.4 | 2.4 | 2.4 |
|  | no | 488 | 97.6 | 97.6 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Figure 5.16 Adulteration ever experienced in milk pouch


Interpretation: The above analysis shows frequency distribution and bar chart for the variable "Adulteration ever experienced by the respondents". Out of the 500 respondents surveyed, 97.6 percent of respondents never experienced adulteration and 2.4 percent experienced it.

Conclusion: Majority of the respondents never experienced adulteration in milk pouch.

Table 5.17 Awareness related to Consumer Laws and consumer court Statistics of the sample

Consumer Court


Consumer Court

|  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |  |
| :--- | :--- | ---: | ---: | ---: | ---: |
|  | yes | 286 | 57.2 | 57.3 | 57.3 |
| Valid | no | 213 | 42.6 | 42.7 | 100.0 |
|  | Total | 499 | 99.8 | 100.0 |  |
| Missing | System | 1 | .2 |  |  |
| Total |  | 500 | 100.0 |  |  |

(Source: Primary Data)
Figure 5.17 Awareness related to Consumer Laws and consumer court


Interpretation: The above output shows frequency distribution and bar chart for the variable "Awareness about laws and consumer court by the respondents". Out of the 499 respondents surveyed, 57.2 percent respondents were aware of consumer laws related consumer court and 42.6 percent of respondents were unaware.

Conclusion: Majority of the respondents were aware about the consumer laws and consumer court.

Table 5.18 Ever cross-checked the weight of milk pouch
Statistics of the sample
Cross check weights


Cross check weights

|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | yes | 75 | 15.0 | 15.0 | 15.0 |
|  | no | 425 | 85.0 | 85.0 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Figure 5.18 Ever cross-checked the weight of milk pouch


Interpretation: The SPSS output labeled "Cross check weights of milk pouch" shows frequency distribution and bar chart for the variable "Ever cross-checked the weight of milk pouch by the respondents". Out of the 500 respondents surveyed, 85 percent respondents never cross-check weights of the milk pouch and 15 percent respondents cross-check weights of the milk pouch
Conclusion: Majority of the respondents never cross check weight of milk pouch.

Table 5.19 Complaint attended by shopkeeper to your satisfaction
Statistics of the sample
Complaint attended by
shopkeeper

| $\begin{array}{ll}\text { Valid } & 499 \\ & \text { Missing }\end{array}$ | 1 |
| :--- | :--- | ---: |


|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
|  | Yes | 451 | 90.2 | 90.4 | 90.4 |
| Valid | No | 48 | 9.6 | 9.6 | 100.0 |
|  | Total | 499 | 99.8 | 100.0 |  |
| Missing | System | 1 | .2 |  |  |
| Total |  | 500 | 100.0 |  |  |

(Source: Primary Data)
Figure 5.19 Complaint attended by shopkeeper to your satisfaction


Interpretation: The SPSS output labeled "Complaint attended by shopkeeper" shows frequency distribution and bar chart for the variable "Complaint attended by shopkeeper to your satisfaction by the respondents". Out of the 499 respondents surveyed, 90.4 percent respondents said that complaints were resolved satisfactorily by the shopkeepers and 9.6 percent said that their complaints were not attended by the shopkeepers.
Conclusion: Shopkeepers in Kolhapur having effective complaint management system and complaints of the consumers are handled effectively.

Table 5.20 Brands Known
Case Summary

|  | Cases |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Valid |  | Missing |  | Total |  |
|  | N | Percent | N | Percent | N | Percent |
|  | 500 | $100.0 \%$ | 0 | $0.0 \%$ | 500 | $100.0 \%$ |

a. Dichotomy group tabulated at value 1.
\$BrandsKnown Frequencies

|  |  | Responses |  | Percent of Cases |
| :---: | :---: | :---: | :---: | :---: |
|  |  | N | Percent |  |
| \$BrandsKnown ${ }^{\text {a }}$ | Gokul | 500 | 15.5\% | 100.0\% |
|  | Warana | 500 | 15.5\% | 100.0\% |
|  | Yalgud | 477 | 14.8\% | 95.4\% |
|  | Shahu | 384 | 11.9\% | 76.8\% |
|  | Chitale | 283 | 8.8\% | 56.6\% |
|  | Krishna | 306 | 9.5\% | 61.2\% |
|  | Mayur | 311 | 9.7\% | 62.2\% |
|  | Sphurti | 240 | 7.4\% | 48.0\% |
|  | Morana | 221 | 6.9\% | 44.2\% |
| Total |  | 3222 | 100.0\% | 644.4\% |

(Source: Primary Data)
a. Dichotomy group tabulated at value 1 .

Interpretation: The SPSS labeled "Brands known" frequency shows that frequency distribution for multiple choices variable' "Brands known to the respondents". Out of 3222 YES responses, 15.5 percent allocated Gokul brand, 15.5 percent allocated Warana brand, 14.8 percent Yalgud brand, 11.9 percent Shahu brand, 8.8 percent Chitale brand, 9.5 percent Krishna brand, 9.7 percent Mayur brand, 7.4 percent Sphurti brand and 6.9 percent Morana brand.

Out of the 500 respondents surveyed, all ( 100 percent) were aware of Gokul brand and Warana brand, 95.4 percent knew Yalgud brand, 76.8 percent Shahu brand, 56.6 percent Chitale brand, 61.2 percent Krishna brand, 62.2 percent Mayur brand, 48 percent Sphurti brand and 44.2 percent Morana brand. The total of percent of cases is not 100 percent because the variable was measured using multiple choice question
Conclusion: Gokul and Warana milk brands are well known brands in Kolhapur region.

Table 5.21 Sources of information for Gokul milk brand
Case Summary

|  | Cases |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Valid |  | Missing |  | Total |  |
|  | N | Percent | N | Percent | N | Percent |
| \$SourcesOfInformationGokul ${ }^{\text {a }}$ | 500 | 100.0\% | 0 | 0.0\% | 500 | 100.0\% |

a. Dichotomy group tabulated at value 1.
\$SourcesOfInformationGokul Frequencies

(Source: Primary Data) a. Dichotomy group tabulated at value 1.
Interpretation: The SPSS labeled "Sources of information of Gokul" frequency shows that frequency distribution for multiple choices variable' "Sources of information for Gokul". Out of 1943 YES responses, 2.9 percent preferred T.V. for information about Gokul, 6.1 percent radio, 24.7 percent newspaper, 13.6 percent friends, 13.9 percent relatives, 13.8 percent retailers, 14.4 percent window display, 10.6 percent said Gokul is a well known brand.

Out of the 499 respondents surveyed, 11.4 percent referred T.V. for information about Gokul, 23.8 percent radio, 95.8 percent newspaper, 53 percent friends, 54.2 percent relatives, 53.6 percent retailers, 55.8 percent window display, 41 percent said Gokul is a well known brand. The total of percent of cases is not 100 percent because the variable was measured using multiple choice question
Conclusion: Newspaper ( 95.8 percent) was the major source for getting information followed by relatives ( 54.2 percent), window display ( 55.8 percent).

Table 5.22 Sources of information for Warana milk brand
Case Summary

|  | Cases |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Valid |  | Missing |  | Total |  |
|  | N | Percent | N | Percent | $N$ | Percent |
| \$SourcesOfInformationWarana ${ }^{\text {a }}$ | 499 | 99.8\% | 1 | 0.2\% | 500 | 100.0\% |

a. Dichotomy group tabulated at value 1.
\$SourcesOfInformationWarana Frequencies

|  |  | Responses |  | Percent of <br> Cases |
| :---: | :---: | :---: | :---: | :---: |
|  |  | N | Percent |  |
| \$SourcesOfInformationWarana ${ }^{\text {a }}$ | Warana T.V. | 20 | 1.9\% | 4.0\% |
|  | Warana Radio | 61 | 5.9\% | 12.2\% |
|  | Warana Newspaper | 476 | 45.8\% | 95.4\% |
|  | Warana Friends | 262 | 25.2\% | 52.5\% |
|  | Warana Relatives | 32 | 3.1\% | 6.4\% |
|  | Warana Retailers | 8 | 0.8\% | 1.6\% |
|  | Warana Window display | 175 | 16.8\% | 35.1\% |
|  | Warana Well Known | 6 | 0.6\% | 1.2\% |
| Total |  | 1040 | 100.0\% | 208.4\% |

(Source: Primary Data) a. Dichotomy group tabulated at value 1.

Interpretation: The SPSS labeled "Sources of information of Warana" frequency shows that frequency distribution for multiple choices variable" "Sources of information for Warana". Out of 1040 YES responses, 1.9 percent preferred T.V. for information about Warana, 5.9 percent radio, 45.8 percent newspaper, 25.2 percent friends, 3.1 percent relatives, 0.8 percent retailers, 16.8 percent window display, 0.6 percent said Warana is a well known brand.

Out of the 499 respondents surveyed, 4 percent referred T.V. for information about Warana, 12.2 percent radio, 95.4 percent newspaper, 52.5 percent friends, 6.4 percent relatives, 1.6 percent retailers, 35.1 percent window display, 1.2 percent said Warana is a well known brand. The total of percent of cases is not 100 percent because the variable was measured using multiple choice question.
Conclusion: Newspaper ( 95.4 percent) was the major source for getting information followed by friends ( 52.5 percent), window display ( 35.1 percent).

Table 5.23 Sources of information for Yalgud milk brand
Case Summary

| Case Summary |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cases |  |  |  |  |  |
|  | Valid |  | Missing |  | Total |  |
|  | N | Percent | N | Percent | N | Percent |
| \$SourcesOfinformationYalgud ${ }^{\text {a }}$ | 479 | 95.8\% | 21 | 4.2\% | 500 | 100.0\% |

a. Dichotomy group tabulated at value 1.
\$SourcesOfInformationYalgud Frequencies

|  |  | Responses |  | Percent of Cases |
| :---: | :---: | :---: | :---: | :---: |
|  |  | N | Percent |  |
| \$SourcesOfinformationYalgud ${ }^{\text {a }}$ | Yalgud T.V. | 10 | 1.1\% | 2.1\% |
|  | Yalgud Radio | 30 | 3.3\% | 6.3\% |
|  | Yalgud Newspaper | 458 | 51.1\% | 95.6\% |
|  | Yalgud Friends | 247 | 27.5\% | 51.6\% |
|  | Yalgud Relatives | 24 | 2.7\% | 5.0\% |
|  | Yalgud Retailers | 4 | 0.4\% | 0.8\% |
|  | Yalgud Window display | 124 | 13.8\% | 25.9\% |
| Total |  | 897 | 100.0\% | 187.3\% |

(Source: Primary Data)
a. Dichotomy group tabulated at value 1 .

Interpretation: The SPSS labeled "Sources of information of Yalgud" frequency shows that frequency distribution for multiple choices variable' "Sources of information for Yalgud". Out of 897 YES responses, 1.1 percent preferred T.V. for information about Yalgud, 3.3 percent radio, 51.1 percent newspaper, 27.5 percent friends, 2.7 percent relatives, 0.4 percent retailers, 13.8 percent window display.

Out of the 479 respondents surveyed, 2.1 percent referred T.V. for information about Yalgud, 6.3 percent radio, 95.6 percent newspaper, 51.6 percent friends, 5.0 percent relatives, 0.8 percent retailers, 25.9 percent window display. The total of percent of cases is not 100 percent because the variable was measured using multiple choice question.
Conclusion: Newspaper ( 95.6 percent) was the major source for getting information followed by friends ( 51.6 percent), window display ( 25.9 percent).

Table 5.24 Sources of information for Shahu milk brand
Case Summary

|  | Cases |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Valid |  | Missing |  | Total |  |
|  | N | Percent | N | Percent | N | Percent |
| \$SourcesOfInformationShahu ${ }^{\text {a }}$ | 385 | 77.0\% | 115 | 23.0\% | 500 | 100.0\% |

a. Dichotomy group tabulated at value 1 .
\$SourcesOfinformationShahu Frequencies

(Source: Primary Data)
a. Dichotomy group tabulated at value 1 .

Interpretation: The SPSS labeled 'Sources of information of Shahu frequency shows that frequency distribution for multiple choices variable' "Sources of information for Shahu". Out of 608 YES responses, 0.7 percent preferred T.V. for information about Shahu, 3.5 percent radio, 60.4 percent newspaper, 31.4 percent friends, 2.1 percent relatives, 0.5 percent retailers, 1.5 percent window display.

Out of the 385 respondents surveyed, 1 percent referred T.V. for information about Shahu, 5.5 percent radio, 95.3 percent newspaper, 49.6 percent friends, 3.4 percent relatives, 0.8 percent retailers, 2.3 percent window display. The total of percent of cases is not 100 percent because the variable was measured using multiple choice question.
Conclusion: Newspaper ( 95.3 percent) was the major source for getting information followed by friends ( 54.2 percent)

Table 5.25 Sources of information for Chitale milk brand
Case Summary

| Case Summary |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cases |  |  |  |  |  |
|  | Valid |  | Missing |  | Total |  |
|  | N | Percent | N | Percent | N | Percent |
| \$SourcesOfInformationChital $e^{a}$ | 287 | 57.4\% | 213 | 42.6\% | 500 | 100.0\% |

a. Dichotomy group tabulated at value 1.

|  |  | Resp | nses | Percent of |
| :---: | :---: | :---: | :---: | :---: |
|  |  | N | Percent | Cases |
| \$SourcesOfInformationChital $e^{a}$ | Chitale T.V. | 5 | 1.2\% | 1.7\% |
|  | Chitale Radio | 14 | 3.3\% | 4.9\% |
|  | Chitale Newspaper | 273 | 64.2\% | 95.1\% |
|  | Chitale Friends | 112 | 26.4\% | 39.0\% |
|  | Chitale Relatives | 14 | 3.3\% | 4.9\% |
| Total | Chitale Retailers | 1 | 0.2\% | 0.3\% |
|  | Chitale Window display | 6 | 1.4\% | 2.1\% |
|  |  | 425 | 100.0\% | 148.1\% |

(Source: Primary Data)
a. Dichotomy group tabulated at value 1.

Interpretation: The SPSS labeled "Sources of information of Chitale" frequency shows that frequency distribution for multiple choices variable' "Sources of information for Chitale". Out of 425 YES responses, 1.2 percent preferred T.V. for information about Chitale, 3.3 percent radio, 64.2 percent newspaper, 26.4 percent friends, 3.3 percent relatives, 0.2 percent retailers, 1.4 percent window display.

Out of the 287 respondents surveyed, 1.7 percent referred T.V. for information about Chitale, 4.9 percent radio, 95.1 percent newspaper, 39 percent friends, 4.9 percent relatives, 0.3 percent retailers, 2.1 percent window display. The total of percent of cases is not 100 percent because the variable was measured using multiple choice question.
Conclusion: Newspaper ( 95.1 percent) was the major source for getting information followed by friends ( 39 percent)

Table 5.26 Sources of information for Krishna milk brand
Case Summary

|  | Cases |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Valid |  | Missing |  | Total |  |
|  | N | Percent | N | Percent | N | Percent |
| \$SourcesOfinformtionKrisha na $^{\text {a }}$ | 306 | 61.2\% | 194 | 38.8\% | 500 | 100.0\% |

a. Dichotomy group tabulated at value 1.
\$SourcesOf Information Krishna Frequencies

|  |  | Responses |  | Percent of <br> Cases |
| :---: | :---: | :---: | :---: | :---: |
|  |  | N | Percent |  |
| \$SourcesOflnformtionKrisha na ${ }^{\text {a }}$ | Krishna T.V. | 115 | 26.6\% | 37.6\% |
|  | Krishna Radio | 11 | 2.5\% | 3.6\% |
|  | Krishna Newspaper | 235 | 54.4\% | 76.8\% |
|  | Krishna Friends | 57 | 13.2\% | 18.6\% |
|  | Krishna Relatives | 8 | 1.9\% | 2.6\% |
|  | Krishna Retailers | 2 | 0.5\% | 0.7\% |
|  | Krishna Window display | 4 | 0.9\% | 1.3\% |
| Total |  | 432 | 100.0\% | 141.2\% |

(Source: Primary Data)
a. Dichotomy group tabulated at value 1 .

Interpretation: The SPSS labeled "Sources of information of Krishna" frequency shows that frequency distribution for multiple choices variable' "Sources of information for Krishna". Out of 432 YES responses, 26.6 percent preferred T.V. for information about Krishna, 2.5 percent radio, 54.4 percent newspaper, 13.2 percent friends, 1.9 percent relatives, 0.5 percent retailers, 0.9 percent window display.

Out of the 306 respondents surveyed, 37.6 percent referred T.V. for information about Krishna, 3.6 percent radio, 76.8 percent newspaper, 18.6 percent friends, 2.6 percent relatives, 0.7 percent retailers, 1.3 percent window display. The total of percent of cases is not 100 percent because the variable was measured using multiple choice question.
Conclusion: Newspaper ( 76.8 percent) was the major source for getting information followed by T.V (37.6 percent)

Table 5.27 Sources of information for Mayur milk brand

| Case Summary |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cases |  |  |  |  |  |
|  | Valid |  | Missing |  | Total |  |
|  | N | Percent | N | Percent | N | Percent |
| \$SourcesOfInformationMayur ${ }^{\text {a }}$ | 303 | 60.6\% | 197 | 39.4\% | 500 | 100.0\% |

a. Dichotomy group tabulated at value 1.
\$SourcesOfinformationMayur Frequencies

|  |  |  | Resp | ses | Percent of |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | N | Percent | Cases |
| \$SourcesOfinformationMayur ${ }^{\text {a }}$ | Mayur T.V. |  | 2 | 0.6\% | 0.7\% |
|  | Mayur | Radio | 9 | 2.6\% | 3.0\% |
|  | Mayur | Newspaper | 282 | 81.7\% | 93.1\% |
|  | Mayur | Friends | 33 | 9.6\% | 10.9\% |
|  | Mayur | Relatives | 17 | 4.9\% | 5.6\% |
|  | Mayur | Window display | 2 | 0.6\% | 0.7\% |
| Total |  |  | 345 | 100.0\% | 113.9\% |

(Source: Primary Data)
a. Dichotomy group tabulated at value 1 .

Interpretation: The SPSS labeled 'Sources of information of Mayur frequency shows that frequency distribution for multiple choices variable' "Sources of information for Mayur". Out of 345 YES responses, 0.6 percent preferred T.V. for information about Mayur, 2.6 percent radio, 28.2 percent newspaper, 33 percent friends, 17 percent relatives, 2 percent window display.

Out of the 303 respondents surveyed, 0.7 percent referred T.V. for information about Mayur, 3 percent radio, 93.1 percent newspaper, 10.9 percent friends, 5.6 percent relatives, 2 percent window display. The total of percent of cases is not 100 percent because the variable was measured using multiple choice question.
Conclusion: Newspaper ( 93.1 percent) was the major source for getting information followed by friends (10.9 percent)

Table 5.28 Sources of information for Sphurti milk brand
Case Summary

a. Dichotomy group tabulated at value 1.
\$SourcesOfInformationSphurti Frequencies

|  |  | Responses |  | Percent of Cases |
| :---: | :---: | :---: | :---: | :---: |
|  |  | N | Percent |  |
| \$SourcesOfInformationSpurti ${ }^{\text {a }}$ | Sphurti T.V. | 3 | 0.8\% | 1.2\% |
|  | Sphurti Radio | 12 | 3.2\% | 5.0\% |
|  | Sphurti Newspaper | 223 | 59.5\% | 92.1\% |
|  | Sphurti Friends | 33 | 8.8\% | 13.6\% |
|  | Sphurti Relatives | 3 | 0.8\% | 1.2\% |
|  | Sphurti Retailers | 4 | 1.1\% | 1.7\% |
|  | Sphurti Window display | 97 | 25.9\% | 40.1\% |
| Total |  | 375 | 100.0\% | 155.0\% |

(Source: Primary Data)
a. Dichotomy group tabulated at value 1.

Interpretation: The SPSS labeled "Sources of information of Sphurti" frequency shows that frequency distribution for multiple choices variable" "Sources of information for Sphurti". Out of 375 YES responses, 0.8 percent preferred T.V. for information about Sphurti, 3.2 percent radio, 59.5 percent newspaper, 8.8 percent friends, 0.8 percent relatives, 1.1 percent retailers, 25.9 percent window display.

Out of the 242 respondents surveyed, 1.2 percent referred T.V. for information about Sphurti, 5 percent radio, 92.1 percent newspaper, 13.6 percent friends, 1.2 percent relatives, 1.7 percent retailers, 40.1 percent window display. The total of percent of cases is not 100 percent because the variable was measured using multiple choice question.
Conclusion: Newspaper ( 92.1 percent) was the major source for getting information followed by friends (13.6 percent).

Table 5.29 Sources of information for Morana milk brand
Case Summary

| Case Summary |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cases |  |  |  |  |  |
|  | Valid |  | Missing |  | Total |  |
|  | N | Percent | N | Percent | N | Percent |
| \$SourcesOfInformationMorana ${ }^{\text {a }}$ | 222 | 44.4\% | 278 | 55.6\% | 500 | 100.0\% |

a. Dichotomy group tabulated at value 1 .
\$SourcesOfInformationMorana Frequencies

|  |  | Responses |  | Percent of <br> Cases |
| :---: | :---: | :---: | :---: | :---: |
|  |  | N | Percent |  |
| \$SourcesOfInformationMorana ${ }^{\text {a }}$ | Morana Radio | 4 | 1.7\% | 1.8\% |
|  | Morana Newspaper | 213 | 89.5\% | 95.9\% |
|  | Morana Friends | 14 | 5.9\% | 6.3\% |
|  | Morana Relatives | 3 | 1.3\% | 1.4\% |
|  | Morana Retailers | 1 | 0.4\% | 0.5\% |
|  | Morana Window display | 3 | 1.3\% | 1.4\% |
| Total |  | 238 | 100.0\% | 107.2\% |

(Source: Primary Data)
a. Dichotomy group tabulated at value 1 .

Interpretation: The SPSS labeled "Sources of information of Morana" frequency shows that frequency distribution for multiple choices variable' "Sources of information for Morana". Out of 238 YES responses, 1.7 percent radio for information about Morana, 89.5 percent newspaper, 5.9 percent friends, 1.3 percent relatives, 0.4 percent retailers, 1.3 percent window display.

Out of the 222 respondents surveyed, 1.8 percent referred radio for information about Morana, 95.9 percent newspaper, 6.3 percent friends, 1.4 percent relatives, 0.5 percent retailers, 1.4 percent window display. The total of percent of cases is not 100 percent because the variable was measured using multiple choice question.
Conclusion: Newspaper ( 95.9 percent) was the major source for getting information followed by friends ( 6.3 percent).

Table 5.30 Influence of Advertisement on purchase of milk brands Statistics of the sample
Influence by Advt. Camp.


(Source: Primary Data)
Figure 5.20 Influence of Advertisement on purchase of milk brands


| Descriptive Statistics |  |  |  |  |  |  |  |
| :--- | ---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | Range | Minimum | Maximum | Mean | Std. Deviation |  |
|  | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic |  |
| Influence by Advt. Camp. | 500 | 4 | 1 | 5 | 3.17 | 1.104 |  |
| Valid N (list wise) | 500 |  |  |  |  |  |  |

## Descriptive Statistics

|  | Skewness |  | Kurtosis |  |
| :--- | ---: | ---: | ---: | ---: |
|  | Statistic |  | Std. Error | Statistic |
| Std. Error |  |  |  |  |
| Influence by Advt. Camp. | -.067 | .109 | -1.251 | .218 |
| Valid N (list wise) |  |  |  |  |

Interpretation: The SPSS labeled 'Descriptive Statistics and Histogram show descriptive information for the variable "Influenced by advertising Campaign" the variable was measured using an interval Scale with anchor labels $1=$ Strongly Disagree, $2=$ Disagree, $3=$ Undecided, $4=$ Agree, $5=$ Strongly Agree .

Mean for the above variable is 3.17 , Standard Deviation is 1.104. (Standard deviation is less than half of the mean). This shows much variation in consumer response to the above variable. From the frequency table it can be seen that 35 percent of the respondents disagreed that advertisement is an effective media whereas 39 percent felt advertisement helps in buying milk products.

Test of Normality: Normality was tested using the criteria (Skewness and Kurtosis between $\pm 1$ ) suggested by George,D., and Mallery, P. (2003). For the current variable Skewness is -0.067 and Kurtosis is between -1.25 . Value of Skewness is within the threshold range whereas value of Kurtosis is slightly above the threshold range thus we conclude that data for the current variable is close to normal distribution.

Conclusion: Respondents are moderately influenced by advertisement campaign.

Table 5.31 Place of purchase of milk brands
Statistics of the sample
R/O. Kirana

| N | Valid | 500 |
| :--- | :--- | ---: |
|  | Missing | 0 |

Place of purchase

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | retail outlet (Kirana) | 465 | 93.0 | 93.0 | 93.0 |
|  | Departmental Store | 1 | . 2 | . 2 | 93.2 |
|  | Home delivery | 34 | 6.8 | 6.8 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Figure 5.21 Place of purchase of milk brands


Interpretation: The SPSS labeled "Place of purchase" shows frequency distribution and bar chart for the variable "Place of purchase of milk brands by the respondents". Out of the 500 respondents surveyed, 93 percent respondents purchase of milk from retail outlet (Kirana), 6.8 percent prefer home delivery and 0.2 percent buy at departmental store.
Conclusion: Majority of the respondents purchase milk at retail outlet (Kirana).

Table 5.32 Type of milk preferred most

## Statistics of the sample



Type of milk

|  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | ---: | ---: | ---: | ---: |
| Valid | BM (high fat) | 455 | 91.0 | 91.0 |
|  | 28 | 5.6 | 5.6 | 96.6 |
|  | cow milk | 17 | 3.4 | 3.4 |

(Source: Primary Data)
Figure 5.22 Type of milk preferred most


Interpretation: The SPSS labeled "Type of milk" shows frequency distribution and bar chart for the variable "Type of milk preferred most by the respondents". Out of the 500 respondents surveyed, 91 percent respondents preferred BM (High Fat), 5.6 percent respondent's preferred Toned milk and 3.4 percent respondents preferred Cow Milk.

Conclusion: Majority of the respondents preferred BM (High Fat), followed by Toned milk.

Table 5.33 Brand preference for Gokul milk brand
Statistics of the sample

|  |  | Gokul | Warana | Yalgud | Shahu | Chitale | Krishna | Mayur | Sphurti | Morana |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Valid | 469 | 375 | 63 | 69 | 5 | 1 | 3 | 3 | 0 |
|  | Missing | 31 | 125 | 437 | 431 | 495 | 499 | 497 | 497 | 500 |


| Gokul |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: |
|  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |  |  |
|  | first preferred | 446 | 89.2 | 95.1 |  |  |

(Source: Primary Data)
Figure 5.23 Brand preference for Gokul milk brand


Interpretation: The SPSS labeled "brand preference" shows frequency distribution and bar chart for the variable "First and second brand preference of the respondents", Out of the 469 respondents surveyed, 95 percent preferred Gokul brand as their first choice and 5 percent as their second choice.
Conclusion: The majority of the respondents preferred Gokul as their first choice.

Table 5.34 Brand preference for Warana milk brand

|  |  | Wrequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
|  | first preferred | 38 | 7.6 | 10.1 | 10.1 |
| Valid | second preferred | 337 | 67.4 | 89.9 | 100.0 |
|  | Total | 375 | 75.0 | 100.0 |  |
| Missing | System | 125 | 25.0 |  |  |
| Total |  | 500 | 100.0 |  |  |

(Source: Primary Data)
Figure 5.24 Brand preference for Warana milk brand


Interpretation: The SPSS labeled "brand preference" shows frequency distribution and bar chart for the variable "First and second brand preference of the respondents", Out of the 375 respondents surveyed, 10 percent preferred Warana brand as their first choice and 90 percent as their second choice.
Conclusion: The majority of the respondents preferred Warana as their second choice.

Table 5.35 Brand preference for Yalgud milk brand

| Yalgud |  |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |  |
|  | first preferred | 12 | 2.4 | 19.0 | 19.0 |  |
| Valid | second preferred | 51 | 10.2 | 81.0 | 100.0 |  |
|  | Total | 63 | 12.6 | 100.0 |  |  |
| Missing | System | 437 | 87.4 |  |  |  |
| Total |  | 500 | 100.0 |  |  |  |

(Source: Primary Data)
Figure 5.25 Brand preference for Yalgud milk brand


Interpretation: The SPSS labeled "brand preference" shows frequency distribution and bar chart for the variable "First and second brand preference of the respondents", Out of the 63 respondents surveyed, 19 percent preferred Yalgud brand as their first choice and 81 percent as their second choice.

Conclusion: The majority of the respondents preferred Yalgud as their second choice.

Table 5.36 Brand preference for Shahu milk brand

| Shahu |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|  | first preferred | 3 | . 6 | 4.3 | 4.3 |
| Valid | second preferred | 66 | 13.2 | 95.7 | 100.0 |
|  | Total | 69 | 13.8 | 100.0 |  |
| Missing | System | 431 | 86.2 |  |  |
| Total |  | 500 | 100.0 |  |  |

(Source: Primary Data)
Figure 5.26 Brand preference for Shahu milk brand


Interpretation: The SPSS labeled "brand preference" shows frequency distribution and bar chart for the variable "First and second brand preference of the respondents", Out of the 69 respondents surveyed, 5 percent preferred Shahu brand as their first choice and 95 percent as their second choice.

Conclusion: The majority of the respondents preferred Shahu as their second choice.

Table 5.37 Satisfaction towards quality of the milk

## Statistics of the sample

Quality Satisfaction


Quality Satisfaction

|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | dissatisfied | 1 | .2 | .2 | .2 |
|  | satisfied | 254 | 50.8 | 50.8 | 51.0 |
|  | highly satisfied | 245 | 49.0 | 49.0 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Figure 5.27 Satisfaction towards quality of the milk


|  | N | Range | Minimum | Maximum | Mean | Std. <br> Deviation | Skewness |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic |
| Quality <br> Satisfaction <br> Valid N (list wise) | 500 | 3 | 2 | 5 | 4.49 | .512 | -.168 |


| Descriptive Statistics |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Skewness | Kurtosis |  |
|  | Std. Error | Statistic | Std. Error |
| Quality Satisfaction Valid N (list wise) | . 109 | -. 971 | . 218 |

Interpretation: The SPSS labeled 'Descriptive Statistics and Histogram show descriptive information for the variable "Quality Satisfaction" the variable was measured using an interval Scale with anchor labels $1=$ Highly dissatisfied , 2= dissatisfied, $3=$ Undecided, $4=$ Satisfied, 5= Highly Satisfied.

Mean for the above variable is 4.49 , Standard Deviation is 0.512 . (Standard deviation is less than the mean). This shows less variation in consumer response to the above variable. From the frequency table it can be seen that 50.8 percent of the respondents satisfied about quality of the milk and 49 percent highly satisfied about quality of the milk.

Test of Normality: Normality was tested using the criteria (Skewness and Kurtosis between $\pm 1$ ) suggested by George,D., and Mallery, P. (2003). For the current variable Skewness is -0.168 and Kurtosis is between -0.971 . Value of Skewness and Kurtosis is within the threshold range thus we conclude that data for the current variable is close to normal distribution.

Conclusion: Respondents are satisfied with quality of the milk consumed.

Table 5.38 Attribute that affect purchase of milk Statistics of the sample

|  | Quality | Availability | Taste | Family <br> Liking | Influence of <br> Friends | Influence <br> of <br> Relatives | satisfacti <br> on | Impulsiv <br> e Buying | Planned <br> Purchase |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Vali <br> d | 500 | 500 | 499 | 498 | 500 | 500 | 500 | 500 | 500 |
| Miss <br> ing | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |

(Source: Primary Data)
Table 5.39 Attribute (Quality) that affect purchase of milk Quality

|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | very important |  |  |  | 1.4 |
|  | extremely important | 493 | 1.4 | 1.4 |  |
|  | Total | 500 | 100.0 | 98.6 | 100.0 |

(Source: Primary Data)
Figure 4.28 Attribute (Quality) that affect purchase of milk


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 500 respondents surveyed, 1.5 percent said quality is very important and 98.5 percent said extremely important.
Conclusion: The majority of the respondents said quality is extremely important.

Table 5.40 Attribute (Availability) that affect purchase of milk
Availability

| Availability |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | important | 2 | . 4 | . 4 | . 4 |
|  | very important | 10 | 2.0 | 2.0 | 2.4 |
|  | extremely important | 488 | 97.6 | 97.6 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Figure 5.29 Attribute (Availability) that affect purchase of milk


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 500 respondents surveyed, 2 percent said availability is very important and 98 percent said extremely important.
Conclusion: The majority of the respondents said availability is extremely important.

Table 5.41 Attribute (Taste) that affect purchase of milk

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | somewhat important | 1 | . 2 | . 2 | . 2 |
|  | important | 5 | 1.0 | 1.0 | 1.2 |
|  | very important | 35 | 7.0 | 7.0 | 8.2 |
|  | extremely important | 458 | 91.6 | 91.8 | 100.0 |
|  | Total | 499 | 99.8 | 100.0 |  |
| Missing | System | 1 | . 2 |  |  |
| Total |  | 500 | 100.0 |  |  |

(Source: Primary Data)
Figure 5.30 Attribute (Taste) that affect purchase of milk


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 499 respondents surveyed, 1 percent said taste is important, 7 percent said very important and 92 percent said extremely important.

Conclusion: The majority of the respondents said taste is extremely important.

Table 5.42 Attribute (Family liking) that affect purchase of milk
Family Liking

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | least important | 2 | . 4 | . 4 | . 4 |
|  | somewhat important | 61 | 12.2 | 12.2 | 12.7 |
|  | important | 50 | 10.0 | 10.0 | 22.7 |
|  | very important | 263 | 52.6 | 52.8 | 75.5 |
|  | extremely important | 122 | 24.4 | 24.5 | 100.0 |
|  | Total | 498 | 99.6 | 100.0 |  |
| Missing | System | 2 | . 4 |  |  |
| Total |  | 500 | 100.0 |  |  |

(Source: Primary Data)

Figure 4.31 Attribute (Family liking) that affect purchase of milk


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 498 respondents surveyed, 12 percent said Family liking is somewhat important, 10 percent said important, 53 percent said very important and 25 percent said extremely important.
Conclusion: The majority of the respondents said "family liking" is very important.

Table 5.43 Attribute (Influence of Friends) that affect purchase of milk Influence of Friends

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | least important | 31 | 6.2 | 6.2 | 6.2 |
|  | somewhat important | 228 | 45.6 | 45.6 | 51.8 |
|  | important | 128 | 25.6 | 25.6 | 77.4 |
|  | very important | 111 | 22.2 | 22.2 | 99.6 |
|  | extremely important | 2 | . 4 | . 4 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Figure 5.32 Attribute (Influence of Friends) that affect purchase of milk


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 500 respondents surveyed, 6 percent said "Influence of Friends" is least important, 46 percent said somewhat important, 26 percent said important, 22 percent said very important.
Conclusion: The majority of the respondents said "Influence of friends" somewhat important.

Table 5.44 Attribute (Influence of Relatives) that affect purchase of milk Influence of Relatives

| Influence of Relatives |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| Valid | least important | 131 | 26.2 | 26.3 | 26.3 |
|  | somewhat important | 225 | 45.0 | 45.2 | 71.5 |
|  | important | 103 | 20.6 | 20.7 | 92.2 |
|  | very important | 36 | 7.2 | 7.2 | 99.4 |
|  | extremely important | 3 | . 6 | . 6 | 100.0 |
|  | Total | 498 | 99.6 | 100.0 |  |
| Missing | System | 2 | . 4 |  |  |
| Total |  | 500 | 100.0 |  |  |

(Source: Primary Data)
Figure 5.33 Attribute (Influence of Relatives) that affect purchase of milk


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 498 respondents surveyed, 27 percent said "Influence of Relatives" is least important, 45 percent said somewhat important, 21 percent said important, 7 percent said very important.
Conclusion: The majority of the respondents said "Influence of Relatives" somewhat important

Table 5.45 Attribute (Satisfaction) that affect purchase of milk satisfaction

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | least important | 2 | . 4 | . 4 | . 4 |
|  | somewhat important | 11 | 2.2 | 2.2 | 2.6 |
|  | important | 9 | 1.8 | 1.8 | 4.4 |
|  | very important | 7 | 1.4 | 1.4 | 5.8 |
|  | extremely important | 471 | 94.2 | 94.2 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Figure 5.34 Attribute (Satisfaction) that affect purchase of milk


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 500 respondents surveyed, 3 percent said "Satisfaction" is somewhat important, 2 percent said important, 1 percent said very important ,94 percent said extremely important.
Conclusion: The majority of the respondents said "Satisfaction" extremely important

Table 5.46 Attribute (Impulsive buying) that affect purchase of milk Impulsive Buying

| Impulsive Buying |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | least important | 6 | 1.2 | 1.2 | 1.2 |
|  | somewhat important | 110 | 22.0 | 22.0 | 23.2 |
|  | important | 47 | 9.4 | 9.4 | 32.6 |
|  | very important | 309 | 61.8 | 61.8 | 94.4 |
|  | extremely important | 28 | 5.6 | 5.6 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Figure 5.35 Attribute (Impulsive buying) that affect purchase of milk


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 500 respondents surveyed, 1 percent said "Impulse buying" is least important, 22 percent said somewhat important, 10 percent said important, 62 percent said very important, 5 percent extremely important.
Conclusion: The majority of the respondents said "Impulse buying" very important.

Table 5.47 Attribute (Planned purchase) that affect purchase of milk

| Planned Purchase |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | :---: |
|  | Frequency | Percent | Valid Percent | Cumulative Percent |  |
|  | least important | 13 | 2.6 | 2.6 |  |

(Source: Primary Data)
Figure 5.36 Attribute (Planned purchase) that affect purchase of milk


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 500 respondents surveyed, 3 percent said "Planned purchase" is least important, 27 percent said somewhat important, 28 percent said important, 40 percent said very important, 2 percent extremely important.
Conclusion: The majority of the respondents said "Planned purchase" is very important.

Table 5.48 Reasons for not purchasing Gokul brand of milk

| Case Summary |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cases |  |  |  |  |  |
|  | Valid |  | Missing |  | Total |  |
|  | N | Percent | N | Percent | N | Percent |
| \$Reasons For Not <br> Purchasing Gokul | 55 | 11.0\% | 445 | 89.0\% | 500 | 100.0\% |

(Source: Primary Data)
a. Dichotomy group tabulated at value 1.
\$Reasons For Not Purchasing Gokul Frequencies

|  |  | Responses |  | Percent of Cases |
| :---: | :---: | :---: | :---: | :---: |
|  |  | N | Percent |  |
|  | Dislike the product | 12 | 21.8\% | 21.8\% |
| \$Reasons For Not | High Price | 4 | 7.3\% | 7.3\% |
| Purchasing Gokul | Non Availability | 8 | 14.5\% | 14.5\% |
|  | Health Conscious | 31 | 56.4\% | 56.4\% |
| Total |  | 55 | 100.0\% | 100.0\% |

(Source: Primary Data)
a. Dichotomy group tabulated at value 1 .

Interpretation: The SPSS labeled reasons for not purchasing shows frequency distribution for the variable "Reasons for not purchasing Gokul milk brand of the respondents", Out of the 55 respondents surveyed, 22 percent said they don't prefer Gokul milk because they dislike the product, 7 percent said they don't prefer Gokul because it is high priced, 15 percent said that they don't prefer because of non availability and 56 percent said they don't buy Gokul for health reasons (Gokul is a high fat milk).
Conclusion: Health consciousness is a major reason for not purchasing Gokul milk brand.

Table 5.49 Reasons for not purchasing Warana brand of milk
Case Summary

(Source: Primary Data)
a. Dichotomy group tabulated at value 1.
\$Reasons For Not Purchasing Warana Frequencies

|  |  | Responses |  | Percent of Cases |
| :---: | :---: | :---: | :---: | :---: |
|  |  | N | Percent |  |
|  | Lack of awareness | 2 | 0.4\% | 0.5\% |
|  | Dislike the product | 28 | 6.3\% | 6.3\% |
| \$Reasons For Not | High Price | 1 | 0.2\% | 0.2\% |
| Purchasing Warana ${ }^{\text {a }}$ | Low quality | 2 | 0.4\% | 0.5\% |
|  | Non Availability | 409 | 91.9\% | 92.5\% |
|  | Health Conscious | 3 | 0.7\% | 0.7\% |
| Total |  | 445 | 100.0\% | 100.7\% |

(Source: Primary Data)
a. Dichotomy group tabulated at value 1 .

Interpretation: The SPSS labeled reasons for not purchasing shows frequency distribution for the variable "Reasons for not purchasing Warana milk brand of the respondents", Out of the 422 respondents surveyed, 7 percent respondents dislike the product, 92 percent non availability and 1 percent Health conscious.
Conclusion: The majority of the respondents said non availability is a reason for not purchasing Warana.

Table 5.50 Reasons for not purchasing Yalgud brand of milk

(Source: Primary Data)
a. Dichotomy group tabulated at value 1 .
\$Reasons For Not Purchasing Yalgud Frequencies

|  |  | Responses |  | Percent of <br> Cases |
| :---: | :---: | :---: | :---: | :---: |
|  |  | N | Percent |  |
|  | Lack of awareness | 14 | 3.1\% | 3.1\% |
|  | Dislike the product | 132 | 28.8\% | 28.8\% |
| \$Reasons For Not | High Price | 5 | 1.1\% | 1.1\% |
| Pur | Low quality | 2 | 0.4\% | 0.4\% |
|  | Non Availability | 306 | 66.7\% | 66.7\% |
| Total |  | 459 | 100.0\% | 100.0\% |

(Source: Primary Data)
a. Dichotomy group tabulated at value 1 .

Interpretation: The SPSS labeled reasons for not purchasing shows frequency distribution for the variable "Reasons for not purchasing Yalgud milk brand of the respondents", Out of the 459 respondents surveyed, 3 percent respondents said lack of awareness, 29 percent respondents dislike the product, 1 percent high price and 67 percent non availability.

Conclusion: The majority of the respondents said non availability is a reason for not purchasing Yalgud milk brand.

Table 5.51 Reasons for not purchasing Shahu brand of milk

(Source: Primary Data)
a. Dichotomy group tabulated at value 1 .
\$Reasons For Not Purchasing Shahu Frequencies

|  |  | Responses |  | Percent of Cases |
| :---: | :---: | :---: | :---: | :---: |
|  |  | N | Percent |  |
| \$Reasons For Not <br> Purchasing Shahu ${ }^{\text {a }}$ | Lack of awareness | 16 | 3.6\% | 3.6\% |
|  | Dislike the product | 275 | 62.1\% | 62.2\% |
|  | High Price | 24 | 5.4\% | 5.4\% |
|  | Non Availability | 124 | 28.0\% | 28.1\% |
|  | Health Conscious | 4 | 0.9\% | 0.9\% |
| Total |  | 443 | 100.0\% | 100.2\% |

(Source: Primary Data)
a. Dichotomy group tabulated at value 1 .

Interpretation: The SPSS labeled reasons for not purchasing shows frequency distribution for the variable "Reasons for not purchasing Shahu milk brand of the respondents", Out of the 443 respondents surveyed, 4 percent respondents said lack of awareness, 62 percent respondents dislike the product, 5 percent high price, 28 percent non availability and 1 percent Health conscious.

Conclusion: The majority of the respondents dislike Shahu milk brand.

Table 5.52 Reasons for not purchasing Chitale brand of milk
Case Summary

(Source: Primary Data)
a. Dichotomy group tabulated at value 1 .
\$Reasons For Not Purchasing Chitale Frequencies

|  |  | Responses |  | Percent of Cases |
| :---: | :---: | :---: | :---: | :---: |
|  |  | N | Percent |  |
|  | Lack of awareness | 27 | 6.8\% | 6.8\% |
|  | Dislike the product | 277 | 69.2\% | 69.2\% |
| \$Reasons For Not | High Price | 22 | 5.5\% | 5.5\% |
| Purchasing Chitale ${ }^{\text {a }}$ | Low Quality | 1 | 0.2\% | 0.2\% |
|  | Non Availability | 72 | 18.0\% | 18.0\% |
|  | Health Conscious | 1 | 0.2\% | 0.2\% |
| Total |  | 400 | 100.0\% | 100.0\% |

(Source: Primary Data)
a. Dichotomy group tabulated at value 1 .

Interpretation: The SPSS labeled reasons for not purchasing shows frequency distribution for the variable "Reasons for not purchasing Chitale milk brand of the respondents", Out of the 400 respondents surveyed, 7 percent respondents said lack of awareness, 69 percent respondents dislike the product, 6 percent high price and 18 percent non availability.
Conclusion: The majority of the respondents said dislike the product is a reason for not purchasing Chitale.

Table 5.53 How important the following points in purchasing the milk brand

| Statistics of the sample |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Quantity | Brand <br> Image | Availability | Price | Taste | Quality | Advt. |
| Valid | 499 | 497 | 500 | 500 | 500 | 500 | 499 |
|  | 1 | 3 | 0 | 0 | 0 | 0 | 1 |

Statistics of the sample

|  |  | Packaging <br> design | Friends | Labeling | Offers | Freshness | Retailers <br> Influence | Availability <br> of Range <br> Products |
| :--- | :--- | :---: | :---: | ---: | ---: | ---: | ---: | ---: |
| N | Valid | 498 | 498 | 498 | 498 | 498 | 499 | 492 |
|  | Missing | 2 | 2 | 2 | 2 | 2 | 1 | 8 |

(Source: Primary Data)

Table 5.54 Quantity as important point in purchasing milk brands Statistics of the sample
Quantity

| N | Valid | 499 |
| :--- | ---: | ---: |
|  | Missing | 1 |
| Mean | 4.33 |  |
| Median | 4.00 |  |
| Mode | 4 |  |
| Std. Deviation | .532 |  |
| Skewness | -.226 |  |
| Std. Error of Skewness | .109 |  |
| Kurtosis | 1.225 |  |
| Std. Error of Kurtosis | .218 |  |
| Range | 3 |  |
| Minimum | 2 |  |
| Maximum | 5 |  |

Frequency Table
Quantity

|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
|  | somewhat important | 4 | .8 | .8 | .8 |
|  | important | 3 | .6 | 6 | 1.4 |
| Valid | very important | 315 | 63.0 | 63.1 | 64.5 |
|  | extremely important | 177 | 35.4 | 35.5 | 100.0 |
|  | Total | 499 | 99.8 | 100.0 |  |
| Missing | System | 1 | .2 |  |  |
| Total |  | 500 | 100.0 |  |  |

(Source: Primary Data)

Figure 5.37 Quantity as important point in purchasing milk brands


Interpretation: The SPSS labeled important for purchase shows frequency distribution and Histogram for the variable "important points in purchasing milk brand of the respondents", Out of the 499 respondents surveyed, 1 percent said quantity is somewhat important, 63 percent said very important , 36 percent said extremely important.
Conclusion: The majority of the respondents said Quantity very important

Table 5.55 Brand Image as important point in purchasing milk brands

| Statistics of the sample |  |
| :--- | :---: |
| Brand Image  <br> Valid 497 <br> Missing 3 <br> Mean 4.41 <br> Median 5.00 <br> Mode 5 <br> Std. Deviation 1.016 <br> Skewness -1.563 <br> Std. Error of Skewness .110 <br> Kurtosis 1.092 <br> Std. Error of Kurtosis .219 <br> Range 4 <br> Minimum 1 <br> Maximum 5 |  |

Brand Image

|  |  | Frequen <br> cy | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | least important | 2 | .4 | .4 | .4 |
|  | somewhat important | 51 | 10.2 | 10.3 | 10.7 |
|  | important | 31 | 6.2 | 6.2 | 16.9 |
|  | very important | 72 | 14.4 | 14.5 | 31.4 |
|  | extremely important | 341 | 68.2 | 68.6 | 100.0 |
|  | Total | 497 | 99.4 | 100.0 |  |
| Missing | System | 3 | .6 |  |  |
| Total |  | 500 | 100.0 |  |  |

(Source: Primary Data)
Figure 4.38 Brand Image as important point in purchasing milk brands


Interpretation: The SPSS labeled important for purchase shows frequency distribution and Histogram for the variable "important points in purchasing milk brand of the
respondents", Out of the 497 respondents surveyed, 10 percent said Brand image is somewhat important, 6 percent said important, 15 percent said very important, 69 percent said extremely important.
Conclusion: The majority of the respondents said Brand image extremely important.

Table 5.56 Availability as important point in purchasing milk brands Statistics of the sample
Availability

| NValid <br> Missing | 500 |
| :--- | ---: |
| Mean | 0 |
| Median | 4.80 |
| Mode | 5.00 |
| Std. Deviation | 5 |
| Skewness | .646 |
| Std. Error of Skewness | -3.418 |
| Kurtosis | .109 |
| Std. Error of Kurtosis | 10.891 |
| Range | .218 |
| Minimum | 3 |
| Maximum | 2 |


| Availability |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: |
|  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |  |  |
| Valid | somewhat important | 17 | 3.4 | 3.4 |  |  |
|  | important | 13 | 2.6 | 2.6 |  |  |

(Source: Primary Data)

Figure 5.39 Availability as important point in purchasing milk brands


Interpretation: The SPSS labeled important for purchase shows frequency distribution and Histogram for the variable "important points in purchasing milk brand of the respondents", Out of the 500 respondents surveyed, 3 percent said Availability is somewhat important, 3 percent said important, 5 percent said very important, 89 percent said extremely important.
Conclusion: The majority of the respondents said Availability extremely important.

Table 5.57 Price as important point in purchasing milk brands Statistics of the sample
Price

(Source: Primary Data)
Figure 5.40 Price as important point in purchasing milk brands


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 500 respondents surveyed, 7 percent said Price is somewhat important, 15 percent said important, 50 percent said very important, 28 percent said extremely important.

Conclusion: The majority of the respondents said Price very important.

Table 5.58 Taste as important point in purchasing milk brands Statistics of the sample
Taste

| N $\quad$ Valid <br> $\quad$ Missing <br> Mean <br> Median <br> Mode <br> Std. Deviation <br> Skewness <br> Std. Error of Skewness <br> Kurtosis <br> Std. Error of Kurtosis <br> Range <br> Minimum <br> Maximum | 500 0 4.27 5.00 5 1.125 -1.162 .109 -.240 .218 4 1 5 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid least important <br>  somewhat important <br>  important <br>  very important <br>  extremely important <br>  Total | 2 64 62 40 332 500 | $\begin{array}{r} \hline .4 \\ 12.8 \\ 12.4 \\ 8.0 \\ 66.4 \\ 100.0 \end{array}$ | $\begin{array}{r} \hline .4 \\ 12.8 \\ 12.4 \\ 8.0 \\ 66.4 \\ 100.0 \end{array}$ | . 4 13.2 25.6 33.6 100.0 |

(Source: Primary Data)
Figure 5.41 Taste as important point in purchasing milk brands


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 500 respondents surveyed, 13 percent said Taste is somewhat important, 13 percent said important, 8 percent said very important, 66 percent said extremely important.

Conclusion: The majority of the respondents said Taste extremely important.

Table 5.59 Quality as important point in purchasing milk brands Statistics of the sample
Quality

| N $\quad$ Valid <br> Mean $\quad$ Missing <br> Median <br> Mode <br> Std. Deviation <br> Skewness <br> Std. Error of Skewness <br> Kurtosis <br> Std. Error of Kurtosis <br> Range <br> Minimum <br> Maximum | 500 <br> 0 <br> 3.44 <br> 4.00 <br> 4 <br> .921 <br> -.518 <br> .109 <br> -.436 <br> .218 <br> 4 <br> 1 <br> 5 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid least important <br>  somewhat important <br>  important <br>  very important <br>  extremely important <br>  Total | 8 88 118 248 38 500 | $\begin{array}{r} \hline 1.6 \\ 17.6 \\ 23.6 \\ 49.6 \\ 7.6 \\ 100.0 \end{array}$ | $\begin{array}{r} \hline 1.6 \\ 17.6 \\ 23.6 \\ 49.6 \\ 7.6 \\ 100.0 \end{array}$ | 1.6 19.2 42.8 92.4 100.0 |

(Source: Primary Data)
Figure $\mathbf{5 . 4 2}$ Quality as important point in purchasing milk brands


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 500 respondents surveyed, 1 percent said Quality is least important, 18 percent said somewhat important, 23 percent said important, 50 percent said very important ,8 percent said extremely important.

Conclusion: The majority of the respondents said Quality very important.

Table: 5.60 Advertisement as important point in purchasing milk brands Statistics of the sample
Advt.

| N $\quad$ Valid | 499 |
| :--- | ---: |
| Missing | 1 |
| Mean | 2.52 |
| Median | 2.00 |
| Mode | 2 |
| Std. Deviation | .785 |
| Skewness | .575 |
| Std. Error of Skewness | .109 |
| Kurtosis | .816 |
| Std. Error of Kurtosis | .218 |
| Range | 4 |
| Minimum | 1 |
| Maximum | 5 |


|  |  |  |  | Cumulative |  |
| :--- | :--- | ---: | ---: | ---: | ---: |
|  | Frequency | Percent | Valid Percent | Percent |  |
| Valid | least important | 30 | 6.0 | 6.0 | 6.0 |
|  | somewhat important | 231 | 46.2 | 46.3 | 52.3 |
|  | important | 197 | 39.4 | 39.5 | 91.8 |
|  | very important | 31 | 6.2 | 6.2 | 98.0 |
|  | extremely important | 10 | 2.0 | 2.0 | 100.0 |
|  | Total | 499 | 99.8 | 100.0 |  |
| Missing | System | 1 | .2 |  |  |
| Total |  | 500 | 100.0 |  |  |

(Source: Primary Data)

## Figure 5.43 Advertisement as important point in purchasing milk brands

## Advt.



Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 500 respondents surveyed, 6 percent said Advertisement is least important, 46 percent said somewhat important, 40 percent said important, 6 percent said very important, 2 percent said extremely important.

Conclusion: The majority of the respondents said Advertisement somewhat important.

Table: 5.61 Packaging design as important point in purchasing milk brands Statistics of the sample
Packaging design

(Source: Primary Data)
Figure 5.44 Packaging design as important point in purchasing milk brands Packaging design


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 498 respondents surveyed, 29 percent said Packaging design is least important, 51 percent said somewhat important, 16 percent said important, 3 percent said very important , 1 percent said extremely important.
Conclusion: The majority of the respondents said Packaging design somewhat important.

Table: 5.62 Friends as important point in purchasing milk brands
Statistics of the sample
Friends

| N Valid |  |
| :--- | ---: |
| $\quad$ Missing | 498 |
| Mean | 2 |
| Median | 1.91 |
| Mode | 2.00 |
| Std. Deviation | 2 |
| Skewness | .865 |
| Std. Error of Skewness | 1.163 |
| Kurtosis | .109 |
| Std. Error of Kurtosis | .858 |
| Range | .218 |
| Minimum | 4 |
| Maximum | 1 |


| Friends |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | least important | 166 | 33.2 | 33.3 | 33.3 |
|  | somewhat important | 245 | 49.0 | 49.2 | 82.5 |
|  | important | 61 | 12.2 | 12.2 | 94.8 |
|  | very important | 17 | 3.4 | 3.4 | 98.2 |
|  | extremely important | 9 | 1.8 | 1.8 | 100.0 |
|  | Total | 498 | 99.6 | 100.0 |  |
| Missing | System | 2 | . 4 |  |  |
| Total |  | 500 | 100.0 |  |  |

(Source: Primary Data)
Figure 5.45 Friends as important point in purchasing milk brands


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 498 respondents surveyed, 34 percent said Friends is least important, 49 percent said somewhat important, 12 percent said important, 3 percent said very important , 2 percent said extremely important.

Conclusion: The majority of the respondents said Friends somewhat important.

Table: 5.63 Labeling as important point in purchasing milk brands Statistics of the sample
Labeling

| N $\quad$Valid <br>  <br> Mean <br> MissingMedianModeStd. DeviationSkewnessStd. Error of SkewnessKurtosisStd. Error of KurtosisRangeMinimumMaximum | 498 <br> 2 <br> 1.75 <br> 2.00 <br> 1 <br> .869 <br> 1.170 <br> .109 <br> .996 <br> .218 <br> 4 <br> 1 <br> 5 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid least important <br> somewhat important <br> important <br> very important <br>  extremely important <br> Total  <br> Missing System <br> Total  | $\begin{array}{r} 231 \\ 192 \\ 45 \\ 28 \\ 2 \\ 498 \\ 2 \\ 500 \end{array}$ | $\begin{array}{r} 46.2 \\ 38.4 \\ 9.0 \\ 5.6 \\ .4 \\ 99.6 \\ .4 \\ 100.0 \end{array}$ | $\begin{array}{r} 46.4 \\ 38.6 \\ 9.0 \\ 5.6 \\ .4 \\ 100.0 \end{array}$ | $\begin{array}{r} 46.4 \\ 84.9 \\ 94.0 \\ 99.6 \\ 100.0 \end{array}$ |

(Source: Primary Data)
Figure: 5.46 Labeling as important point in purchasing milk brands Labeling


Interpretation: The SPSS label attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 498 respondents surveyed, 46 percent said Labeling is least important, 39 percent said somewhat important, 9 percent said important, 6 percent said very important.

Conclusion: The majority of the respondents said Labeling Least important.

Table: 5.64 Offers as important point in purchasing milk brands
Statistics of the sample

| N Valid | 498 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Missing | 2 |  |  |  |
| Mean | 1.81 |  |  |  |
| Median | 2.00 |  |  |  |
| Mode | 1 |  |  |  |
| Std. Deviation | . 997 |  |  |  |
| Skewness | 1.483 |  |  |  |
| Std. Error of Skewness | . 109 |  |  |  |
| Kurtosis | 2.064 |  |  |  |
| Std. Error of Kurtosis | . 218 |  |  |  |
| Range | 4 |  |  |  |
| Minimum | 1 |  |  |  |
| Maximum | 5 |  |  |  |
| Offers |  |  |  |  |
|  |  |  |  | Cumulative |
|  | Frequency | Percent | Valid Percent | Percent |
| Valid least important | 230 | 46.0 | 46.2 | 46.2 |
| somewhat important | 185 | 37.0 | 37.1 | 83.3 |
| important | 47 | 9.4 | 9.4 | 92.8 |
| very important | 18 | 3.6 | 3.6 | 96.4 |
| extremely important | 18 | 3.6 | 3.6 | 100.0 |
| Total | 498 | 99.6 | 100.0 |  |
| Missing System | 2 | . 4 |  |  |
| Total | 500 | 100.0 |  |  |

(Source: Primary Data)
Figure: 5.47 Offers as important point in purchasing milk brands


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 498 respondents surveyed, 46 percent said Offers are least important, 37 percent said somewhat important, 9 percent said important, 4 percent said very important, 4 percent said extremely important.

Conclusion: The majority of the respondents said Offers least important.

Table: 5.65 Freshness as important point in purchasing milk brands Statistics of the sample
Freshness

| N $\quad$ Valid Mean $\quad$ Missing Median Mode Std. Deviation Skewness Std. Error of Skewness Kurtosis Std. Error of Kurtosis Range Minimum Maximum | $\begin{array}{r} \hline 498 \\ 2 \\ 4.94 \\ 5.00 \\ 5 \\ .394 \\ -7.619 \\ .109 \\ 61.578 \\ .218 \\ 4 \\ 1 \\ 5 \\ \hline \end{array}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid least important <br> somewhat important <br> important <br>  very important <br> extremely important <br> Missing Total <br> System  <br> Total  | 2 3 4 4 485 498 2 500 | $\begin{array}{r} \hline .4 \\ .6 \\ .8 \\ .8 \\ 97.0 \\ 99.6 \\ .4 \\ 100.0 \end{array}$ | $\begin{array}{r} \hline .4 \\ .6 \\ .8 \\ .8 \\ 97.4 \\ 100.0 \end{array}$ | .4 1.0 1.8 2.6 100.0 |

Figure: 5.48 Freshness as important point in purchasing milk brands


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 500 respondents surveyed, 1 percent said Freshness is somewhat important, 1 percent said important, 1 percent said very important, 97 percent said extremely important.
Conclusion: The majority of the respondents said Freshness extremely important.

Table: 5.66 Retailers influence as important point in purchasing milk brands
Statistics of the sample
Retailers Influence

| N $\quad$ Valid <br> Mean $\quad$ Missing <br> Median <br> Mode <br> Std. Deviation <br> Skewness <br> Std. Error of Skewness <br> Kurtosis <br> Std. Error of Kurtosis <br> Range <br> Minimum <br> Maximum | 499 1 3.23 4.00 4 1.019 -.741 .109 -.928 .218 4 1 5 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid least important <br> somewhat important <br> important <br>  very important <br> extremely important <br>  Total <br> Missing System <br> Total  | 27 129 48 291 4 499 1 500 | $\begin{array}{r} \hline 5.4 \\ 25.8 \\ 9.6 \\ 58.2 \\ .8 \\ 99.8 \\ .2 \\ 100.0 \end{array}$ | $\begin{array}{r} 5.4 \\ 25.9 \\ 9.6 \\ 58.3 \\ .8 \\ 100.0 \end{array}$ | $\begin{array}{r} 5.4 \\ 31.3 \\ 40.9 \\ 99.2 \\ 100.0 \end{array}$ |

Figure 5.49 Retailers influence as important point in purchasing milk brands


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 499 respondents surveyed, 5 percent said Retailers influence is least important, 26 percent said somewhat important, 10 percent said important, 58 percent said very important , 1 percent said extremely important.

Conclusion: The majority of the respondents said Retailers influence very important.

Table: 5.67 Availability of range of products as important point in purchasing milk

## brands

Statistics of the sample
Availability of Range Products

| NValid <br> Missing | 492 |
| :--- | ---: |
| Mean | 8 |
| Median | 3.09 |
| Mode | 3.00 |
| Std. Deviation | 4 |
| Skewness | 1.045 |
| Std. Error of Skewness | -.414 |
| Kurtosis | .110 |
| Std. Error of Kurtosis | -.964 |
| Range | .220 |
| Minimum | 4 |
| Maximum | 1 |


| Availability of Range Products |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | least important | 35 | 7.0 | 7.1 | 7.1 |
|  | somewhat important | 128 | 25.6 | 26.0 | 33.1 |
|  | important | 99 | 19.8 | 20.1 | 53.3 |
|  | very important | 216 | 43.2 | 43.9 | 97.2 |
|  | extremely important | 14 | 2.8 | 2.8 | 100.0 |
|  | Total | 492 | 98.4 | 100.0 |  |
| Missing | System | 8 | 1.6 |  |  |
| Total |  | 500 | 100.0 |  |  |

(Source: Primary Data)
Figure: 5.50 Availability of range of products as important point in purchasing milk brands


Interpretation: The SPSS labeled attribute for purchase shows frequency distribution and Histogram for the variable "Attribute that affect purchase of milk brand of the respondents", Out of the 492 respondents surveyed, 7 percent said Availability of range of products is least important, 26 percent said somewhat important, 20 percent said important, 44 percent said very important, 3 percent said extremely important.

Conclusion: The majority of the respondents said Availability of range of products very important.

Descriptive Statistics

|  | N | Range | Minimum | Maximum | Mean | Std. Deviation |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic |
|  | 499 | 3 | 2 | 5 | 4.33 | .532 |
| Quantity | 497 | 4 | 1 | 5 | 4.41 | 1.016 |
| Brand Image | 500 | 3 | 2 | 5 | 4.80 | .646 |
| Availability | 500 | 3 | 2 | 5 | 4.01 | .834 |
| Price | 500 | 4 | 1 | 5 | 4.27 | 1.125 |
| Taste | 500 | 4 | 1 | 5 | 3.44 | .921 |
| Quality | 499 | 4 | 1 | 5 | 2.52 | .785 |
| Advt. | 498 | 4 | 1 | 5 | 1.95 | .800 |
| Packaging design | 498 | 4 | 1 | 5 | 1.91 | .865 |
| Friends | 498 | 4 | 1 | 5 | 1.75 | .869 |
| Labeling | 498 | 4 | 1 | 5 | 1.81 | .997 |
| Offers | 498 | 4 | 1 | 5 | 4.94 | .394 |
| Freshness | 499 | 4 | 1 | 5 | 3.23 | 1.019 |
| Retailers Influence | 492 | 4 | 1 | 5 | 3.09 | 1.045 |
| Availability of Range |  | 481 |  |  |  |  |
| Products |  |  |  |  |  |  |
| Valid N (list wise) |  |  |  |  |  |  |

Descriptive Statistics

|  | Skewness |  | Kurtosis |  |
| :--- | ---: | ---: | ---: | ---: |
|  | Statistic | Std. Error | Statistic | Std. Error |
|  | -.226 | .109 | 1.225 | .218 |
| Brand Image | -1.563 | .110 | 1.092 | .219 |
| Availability | -3.418 | .109 | 10.891 | .218 |
| Price | -.698 | .109 | .119 | .218 |
| Taste | -1.162 | .109 | -.240 | .218 |
| Quality | -.518 | .109 | -.436 | .218 |
| Advt. | .575 | .109 | .816 | .218 |
| Packaging design | .770 | .109 | .818 | .218 |
| Friends | 1.163 | .109 | 1.858 | .218 |
| Labeling | 1.170 | .109 | .996 | .218 |
| Offers | 1.483 | .109 | 2.064 | .218 |
| Freshness | -7.619 | .109 | 61.578 | .218 |
| Retailers Influence | -.741 | .109 | -.928 | .218 |
| Availability of Range Products | -.414 | .110 | -.964 | .220 |
| Valid N (list wise) |  |  |  |  |

Table 5.68 Extent of purchase decision
Statistics of the sample
Extent of purchase decision on above factors

| NValid <br> Missing | 500 |
| :--- | ---: |
| Mean | 0 |
| Median | 4.81 |
| Mode | 5.00 |
| Std. Deviation | 5 |
| Skewness | .389 |
| Std. Error of Skewness | -1.619 |
| Kurtosis | .109 |
| Std. Error of Kurtosis | .623 |
| Range | .218 |
| Minimum | 1 |
| Maximum | 4 |

Extent of purchase decision on above factors

|  |  |  |  |  | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | agree | 93 | 18.6 | 18.6 | 18.6 |
|  | strongly agree | 407 | 81.4 | 81.4 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Figure 5.51 Extent of purchase decision



Descriptive Statistics

|  | Skewness |  | Kurtosis |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Statistic | Std. Error | Statistic | Std. Error |
| Extent of purchase decision on above factors <br> Valid N (list wise) | -1.619 | . 109 | .623 | . 218 |

Interpretation: The SPSS labeled 'Descriptive Statistics and Histogram show descriptive information for the variable "Purchase decision" the variable was measured using an interval Scale with anchor labels $1=$ strongly Disagree, $2=$ Disagree, 3= Undecided, 4 = Agree, 5= Strongly Agree.

Mean is 4.81 , Standard Deviation is 0.389 which is less than $1 / 3^{\text {rd }}$ of mean. Thus mean is a representative value and we can conclude that respondents strongly agree that purchase decision is based on above factors. The value of Skewness and Kurtosis is between +1 and -1 . Thus the data is normally distributed.

Since the value of Skewness is negative the histogram is a left skewed curve and thus most of the data piled on the right hand side.
Kurtosis value is 0.623 but not close to 1 . Thus the curve is pointed and narrow.
Conclusion: Respondents agreed that extent of purchase decision depends upon any of the above factors.

Table 5.69 Changed the brand
Statistics of the sample
Changed Brand in six months

| $N$ | Valid | 499 |
| :--- | :--- | ---: |
|  | Missing | 1 |

Changed Brand in six months

|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
|  | yes | 2 | .4 | .4 | .4 |
| Valid | no | 497 | 99.4 | 99.6 | 100.0 |
|  | Total | 499 | 99.8 | 100.0 |  |
| Missing | System | 1 | .2 |  |  |
| Total |  | 500 | 100.0 |  |  |

(Source: Primary Data)
Figure 5.52 Changed the brand


Interpretation: The SPSS labeled changed the brand shows frequency distribution and pie chart for the variable "Ever changed the milk brand in last 6 months of the respondents", Out of the 499 respondents surveyed, 0.4 percent said yes and 99.6 percent said they have not changed the milk brand in last six months.
Conclusion: The majority of the respondents have not changed the brand in last six months.

Table 5.70 Sources of information for alternate brand Case Summary

|  | Cases |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Valid |  | Missing |  | Total |  |
|  | N | Percent | N | Percent | N | Percent |
| \$V29 ${ }^{\text {a }}$ | 500 | 100.0\% | 0 | .0\% | 500 | 100.0\% |

a. Dichotomy group tabulated at value 1.
\$V29 Frequencies

|  |  |  |  | Rercent of |
| :--- | :--- | ---: | ---: | ---: |
|  |  | N | Percent <br> Cases |  |
| Soruce of inf for alternative | Friends | 164 | $14.1 \%$ | $32.8 \%$ |
| brand $^{\text {a }}$ | Doctors | 39 | $3.4 \%$ | $7.8 \%$ |
|  | Advt. | 260 | $22.4 \%$ | $52.0 \%$ |
|  | relatives | 264 | $22.7 \%$ | $52.8 \%$ |
|  | Shop Keepers | 435 | $37.4 \%$ | $87.0 \%$ |
|  |  | 1162 | $100.0 \%$ | $232.4 \%$ |

(Source: Primary Data)
a. Dichotomy group tabulated at value 1.

Interpretation: The SPSS labeled 'Sources of information shows that frequency distribution for multiple choices variable" "Sources of information for alternate brand for the respondents". Out of 1162 YES responses, 14.1 percent said known the alternate brand through Friends, 3.4 percent by Doctors, 22.4 percent know by Advertisement , 22.7 percent by Relatives and 37.4 percent by Shopkeepers.

Out of the 500 respondents surveyed, 32.8 percent said known the alternate brand through Friends, 7.8 percent by Doctors, 52 percent know by Advertisement, 52.8 percent by Relatives and 87 percent by Shopkeepers. The total of percent of cases is not 100 percent because the variable was measured using multiple choice question. Conclusion: The source of information for alternate brands was Shopkeepers ( 87 percent) followed by Relatives ( 52.8 percent) and Advertisement ( 52 percent).

Table 5.71 Alternate purchase plans

a. Dichotomy group tabulated at value 1.
\$What If Preferred Brand Not Available Frequencies

|  |  | Responses |  | Percent of Cases |
| :---: | :---: | :---: | :---: | :---: |
|  |  | N | Percent |  |
|  | Go to other shop | 405 | 81.3\% | 81.3\% |
| \$WhatIfPreferredBrandNotAvaliable ${ }^{\text {a }}$ | Buy the other Brand | 89 | 17.9\% | 17.9\% |
|  | Place order to get Brand | 4 | 0.8\% | 0.8\% |
| Total |  | 498 | 100.0\% | 100.0\% |

(Source: Primary Data)
a. Dichotomy group tabulated at value 1.

Interpretation: The SPSS labeled Alternate purchase plans shows frequency distribution for the variable "Alternate purchase plan if preferred milk brand is not available of the respondents", Out of the 498 respondents surveyed, 91.3 percent said they will go to other shop, 17.9 percent said Buy the other brand and 0.8 percent said place the order to get the same milk brand.

Conclusion: The majority of the respondents preferred to go to other shop followed by buying another brand.

Table 5.72 Satisfied by the brand of milk using
Statistics of the sample

|  | Satisfied by <br> Brand |  | I Always buy <br> Brand | I Recommend <br> the Brand |
| :--- | :--- | :--- | :--- | :--- |
| N | Valid | 500 | 500 | 500 |
|  | Missing |  |  |  |$\quad$| 0 | 0 | 0 |  |  |
| ---: | ---: | ---: | :---: | :---: |
| Satisfied by Brand |  |  |  |  |


|  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | ---: | ---: | ---: | ---: |
| Valid |  |  |  | .2 |
|  | 1 | .2 | .2 | .4 |
|  | 1 | .2 | .2 | 43.0 |
| agree | 213 | 42.6 | 42.6 | 100.0 |
| strongly agree | 285 | 57.0 | 57.0 |  |
| Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Table 5.53 Satisfied by the brand of milk using


Interpretation: The SPSS labeled Satisfied by the milk brand shows frequency distribution and Histogram for the variable "Satisfied by the milk brand of the respondents", Out of the 500 respondents surveyed, 43 percent agree that they are satisfied with the milk brand purchase and 57 percent strongly agree that they are satisfied with the milk brand purchase.
Conclusion: The majority of the respondents strongly agree that they are satisfied with milk brand they purchase.

Table 5.73 I always buy the brand of milk

| I Always buy Brand |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | agree | 198 | 39.6 | 39.6 | 39.6 |
|  | strongly agree | 302 | 60.4 | 60.4 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)
Figure 5.54 I always buy the brand of milk


Interpretation: The SPSS labeled Always buy the milk brand shows frequency distribution and Histogram for the variable "Always buy the milk brand of the respondents", Out of the 500 respondents surveyed, 39.6 percent agree that they will buy the milk brand and 60.4 percent strongly agree that they will buy the same brand. Conclusion: The majority of the respondents strongly agree that they will buy the same brand.

Table 5.74 I recommend the brand
I Recommend the Brand

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | strongly disagree | 1 | . 2 | . 2 | . 2 |
|  | agree | 188 | 37.6 | 37.6 | 37.8 |
|  | strongly agree | 311 | 62.2 | 62.2 | 100.0 |
|  | Total | 500 | 100.0 | 100.0 |  |

(Source: Primary Data)

Figure 5.55 I recommend the brand


Interpretation: The SPSS labeled Always recommend the milk brand shows frequency distribution and Histogram for the variable "Always recommend milk brand to buy others of the respondents", Out of the 500 respondents surveyed, 38 percent agree that they will recommend brand of milk to buy others and 62 percent strongly agree for the same.
Conclusion: The majority of the respondents strongly agree that they will recommend the milk brand for others to buy.

## Descriptives

Descriptive Statistics

|  | N | Range | Minimum | Maximum | Mean | Std. Deviation |
| :--- | ---: | :---: | :---: | :---: | :---: | ---: |
|  | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic |
| Satisfied by Brand | 500 | 4 | 1 | 5 | 4.56 | .532 |
| I Always buy Brand | 500 | 1 | 4 | 5 | 4.60 | .490 |
| I Recommend the Brand | 500 | 4 | 1 | 5 | 4.62 | .511 |
| Valid N (list wise) | 500 |  |  |  |  |  |

Descriptive Statistics

|  | Skewness |  | Kurtosis |  |
| :--- | ---: | ---: | ---: | ---: |
|  | Statistic | Std. Error | Statistic | Std. Error |
| Satisfied by Brand | -1.003 | .109 | 2.940 | .218 |
| I Always buy Brand | -.427 | .109 | -1.825 | .218 |
| I Recommend the Brand | -1.110 | .109 | 3.077 | .218 |
| Valid N (list wise) |  |  |  |  |

[^0]
## PART B: TESTING OF HYPOTHESIS

In order to test the hypothesis set, the researcher has used the following statistical tools such as Multiple Regression Analysis, Chi-square test and Single factor ANOVA, Z test, Z Test of proportionality ( $\mathrm{n}>30$ ), Nominal by interval Eta test. The following table shows the test results along with hypothesis and interpretation. The detail explanation of each hypothesis is given in subsequent pages.

| Hypothesis |  | Test | Interpretation |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 | At least one of the independent variable (Brand image, Price, Taste, Quality, Advertisements, Packaging design, Friends, Labeling, Offers, Freshness, Retailers influence, Availability of range products) is not a significant predictor of purchase decision of a milk brand. | Multiple Regression Analysis | $\begin{aligned} & \mathrm{F}=15.549, \mathrm{p} \text {-value }< \\ & 0.05 \end{aligned}$ | Null hypothesis Rejected |
| 2 | There is no relationship between Age and quantity of milk bought per day. | Chi-Square | $\begin{aligned} & \chi^{2} \quad(6)=74.125, \\ & p \text {-value }<0.05 \end{aligned}$ | Null <br> hypothesis Rejected |
| 3 | There is no relationship between Gender and quantity of milk bought per day. | Chi-Square | $\begin{aligned} & \chi^{2} \quad(2)=55.493, \\ & p \text {-value }<0.05 \end{aligned}$ | Null hypothesis Rejected |
| 4 | There is no relationship between Monthly income and quantity of milk bought per day. | Chi-Square | $\begin{aligned} & \chi^{2}(8)=79.149 \\ & p \text {-value }<0.05 \end{aligned}$ | Null <br> hypothesis Rejected |
| 5 | There is no relationship between Type of family and quantity of milk bought per day. | Chi-Square | $\begin{aligned} & \chi^{2}(2)=35.837 \\ & p \text {-value }<0.05 \end{aligned}$ | Null <br> hypothesis Rejected |


| 6 | There is no relationship between Age and Pack size of milk bought per day. | Chi-Square | $\begin{aligned} & \chi^{2} \quad(6)=74.125, \\ & p \text {-value }<0.05 \end{aligned}$ | Null hypothesis Rejected |
| :---: | :---: | :---: | :---: | :---: |
| 7 | Proportion of consumers buying high fat milk is equal to 80 percent $(p=80 \%)$. | $\begin{aligned} & \text { Z Test for } \\ & \text { proportionality } \\ & (\mathrm{n}>30) \end{aligned}$ | The critical value of Z at $5 \%$ level of significance Right-tailed test is $+1.645$ <br> Computed value (6.47) is more than the critical value (1.645). | Null hypothesis Rejected |
| 8 | There is no relationship between brand preference and availability of brand. | Nominal by interval Eta test | Eta is significance at 10 percent level of significance, since $p$ value (0.094) is less than level of significance (0.1) | Null hypothesis Rejected |

## HYPOTHESIS 1

## PURPOSE:

To study whether Brand image, Price, Taste, Quality, Advertisements, Packaging design, Friends, Labeling, Offers, Freshness, Retailers influence, Availability of range products, are a significant predictor of purchase decision of a milk brand.

STATISTICAL TEST: Multiple regression analysis

## Null Hypothesis

$\left(\mathrm{H}_{\mathrm{o}}\right)$ : At least one of the independent variable (Brand image, Price, Taste, Quality, Advertisements, Packaging design, Friends, Labeling, Offers, Freshness, Retailers influence, Availability of range products), is not a significant predictor of purchase decision of a milk brand.

## Alternate Hypothesis:

$\left(\mathrm{H}_{1}\right)$ : At least one of the independent variable (Brand image, Price, Taste, Quality, Advertisements, Packaging design, Friends, Labeling, Offers, Freshness, Retailers influence, Availability of range products), is a significant predictor of purchase decision of a milk brand.

Level of significance $\alpha=0.05$

## Model of summary:

The SPSS output labeled model summary show three R's and standard error of estimate

$$
\begin{aligned}
\mathrm{R} & =0.533 \\
\mathrm{R}^{2} & =0.285 \\
\text { Adjusted } \mathrm{R}^{2} & =0.266
\end{aligned}
$$

## Observation:

$R=0.533$ this indicates strength of relationship between all the independent variable (Brand image, Price, Taste, Quality, Advertisements, Packaging design, Friends Labeling, Offers, Freshness, Retailers influence, Availability of range products) and the dependent variables (Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree.) This value suggests a moderate relationship.
$R^{2}=0.285$, this value suggests all independents together explain 30 percent of the variance in the dependent variables.

Adjusted $\mathrm{R}^{2}=0.266$, adjusted $\mathrm{R}^{2}$ explain 28 percent of variance in the dependent variables after adjusting the R2 depending upon independent variables and sample size. Standard Error of estimate $=0.325$

| Model | Rodel Summary |  |  |  |
| :--- | :--- | ---: | ---: | ---: |
|  | R | R Square | Adjusted R <br> Square | Std. Error of the <br> Estimate |
| 1 | $.533^{\mathrm{a}}$ | .285 | .266 | .325 |

a. Predictors: (Constant), Availability of Range Products, Freshness, Packaging design, Price, Offers, Brand Image, Advt., taste, Friends, quality, Retailers Influence, Labeling
b. Dependent Variable: Extent of purchase decision on above factors

ANOVA Decision:

| Test | Test Statistics | P value | Level <br> Significance | Decision |
| :--- | :--- | :--- | :--- | :--- |
| ANOVA Test | 15.549 | 0.000 | 0.05 | Rejected |

## Conclusion:

Since p-value $(0.000)<0.05$ the Null hypothesis is rejected. We therefore conclude that At least one of the independent variable (Brand image, Price, Taste, Quality, Advertisements, Packaging design, Friends, Labeling, Offers, Freshness, Retailers influence, Availability of range products) is a significant predictor of purchase decision of a milk brand.
ANOVA ${ }^{\mathrm{b}}$ Test results

| Model |  | Sum of <br> Squares | df | Mean | Square | F |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | 19.741 | 12 | 1.645 | 15.549 | Sig. (P-value) |
|  | Residual | 49.620 | 469 | .106 |  | $.000^{\text {a }}$ |
|  | Total | 69.361 | 481 |  |  |  |

a. Predictors: (Constant), Availability of Range Products, Freshness, Packaging design, Price, Offers,

Brand Image, Advt., taste, Friends, quality, Retailers Influence, Labeling
b. Dependent Variable: Extent of purchase decision on above factors

ANOVA test studies overall significance of the model. This test is significant for the current example,
F $(12,469)=15.54$, p-value $(0.000)<0.05$
Since this test is significant we move to coefficient table in order to study the predictive power of each independent variable.

Coefficients ${ }^{\text {a }}$

| Model |  | Unstandardized Coefficients |  | $\begin{gathered} \begin{array}{c} \text { Standardized } \\ \text { Coefficients } \end{array} \\ \hline \text { Beta } \\ \hline \end{gathered}$ | t | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | B | Std. Error |  |  |  |
| 1 | (Constant) | 3.748 | . 234 |  | 16.045 | . 000 |
|  | Brand Image | . 012 | . 021 | . 034 | . 597 | . 551 |
|  | Price | . 027 | . 019 | . 059 | 1.385 | . 167 |
|  | taste | . 044 | . 020 | . 130 | 2.223 | . 027 |
|  | quality | . 051 | . 026 | . 124 | 1.966 | . 050 |
|  | Advt. | -. 085 | . 027 | -. 177 | -3.173 | . 002 |
|  | Packaging design | . 011 | . 030 | . 023 | . 366 | . 714 |
|  | Friends | -. 063 | . 026 | -. 144 | -2.430 | . 015 |
|  | Labeling | -. 006 | . 033 | -. 013 | -. 170 | . 865 |
|  | Offers | . 015 | . 023 | . 039 | . 648 | . 517 |
|  | Freshness | . 095 | . 043 | . 088 | 2.193 | . 029 |
|  | Retailers Influence | . 088 | . 025 | . 233 | 3.550 | . 000 |
|  | Availability of Range Products | . 031 | . 023 | . 084 | 1.339 | . 181 |

a. Dependent Variable: Extent of purchase decision on above factors

## Observation:

Constant $=3.748$
For independent variable of the purchase decision

| Particulars | t-test | P-value | Significance <br> level | Result |
| :--- | :--- | :--- | :--- | :--- |
| Brand Image | 0.59 | 0.551 | $>0.05$ | Insignificant |
| Price | 1.385 | 0.167 | $>0.05$ | Insignificant |
| Taste | 2.223 | 0.027 | $<0.05$ | Significant |
| Quality | 1.966 | 0.050 | $<0.05$ | Significant |
| Advertisement | -3.713 | 0.002 | $<0.05$ | Significant |
| Packaging | 0.366 | 0.714 | $>0.05$ | Insignificance |
| Friends | -2.43 | 0.015 | $<0.05$ | Significant |
| Labeling | -0.17 | 0.865 | $>0.05$ | Insignificance |
| Offers | 0.648 | .0517 | $>0.05$ | Insignificant |
| Freshness | 2.193 | .0029 | $<0.05$ | Significant |
| Retailers influence | 3.550 | 0.000 | $<0.05$ | Significant |
| Availability of <br> range of products | 1.993 | 0.181 | $>0.05$ | Insignificance |

## Regression Equation:

Purchase decision $=3.748+0.044$ (Taste) +0.05 (Quality) -0.08 (Advertisement) 0.06 (Friends) +0.095 (Freshness) +0.08 (Retailers influence).

The above result shows that there is a positive relationship between purchase decision and taste, quality, freshness, retailers influence. And there is a negative relationship between purchase decision and advertisement, friends and labeling.

a. Dependent Variable: Extent of purchase decision on above
factors
Multi co linearity is not a problem in this case since all the VIF values are below 10 and tolerance values are above 0.1 .

Descriptive Statistics

|  | N | Range | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic |
| Quantity | 499 | 3 | 2 | 5 | 4.33 | . 532 |
| Brand Image | 497 | 4 | 1 | 5 | 4.41 | 1.016 |
| Availability | 500 | 3 | 2 | 5 | 4.80 | . 646 |
| Price | 500 | 3 | 2 | 5 | 4.01 | . 834 |
| Taste | 500 | 4 | 1 | 5 | 4.27 | 1.125 |
| Quality | 500 | 4 | 1 | 5 | 3.44 | . 921 |
| Advt. | 499 | 4 | 1 | 5 | 2.52 | . 785 |
| Packaging design | 498 | 4 | 1 | 5 | 1.95 | . 800 |
| Friends | 498 | 4 | 1 | 5 | 1.91 | . 865 |
| Labeling | 498 | 4 | 1 | 5 | 1.75 | . 869 |
| Offers | 498 | 4 | 1 | 5 | 1.81 | . 997 |
| Freshness | 498 | 4 | 1 | 5 | 4.94 | . 394 |
| Retailers Influence | 499 | 4 | 1 | 5 | 3.23 | 1.019 |
| Availability of Range Products | 492 | 4 | 1 | 5 | 3.09 | 1.045 |
| Valid N (list wise) | 481 |  |  |  |  |  |

Descriptive Statistics

|  | Skewness |  | Kurtosis |  |
| :--- | ---: | ---: | ---: | ---: |
|  | Statistic | Std. Error | Statistic | Std. Error |
|  | -.226 | .109 | 1.225 | .218 |
| Brantity Image | -1.563 | .110 | 1.092 | .219 |
| Availability | -3.418 | .109 | 10.891 | .218 |
| Price | -.698 | .109 | .119 | .218 |
| Taste | -1.162 | .109 | -.240 | .218 |
| Quality | -.518 | .109 | -.436 | .218 |
| Advt. | .575 | .109 | .816 | .218 |
| Packaging design | .770 | .109 | .818 | .218 |
| Friends | 1.163 | .109 | 1.858 | .218 |
| Labeling | 1.170 | .109 | .996 | .218 |
| Offers | 1.483 | .109 | 2.064 | .218 |
| Freshness | -7.619 | .109 | 61.578 | .218 |
| Retailers Influence | -.741 | .109 | -.928 | .218 |
| Availability of Range Products | -.414 | .110 | -.964 | .220 |
| Valid N (list wise) |  |  |  |  |

Assumption of normality: Assumption of normality is tenable for the current example since Skewness and kurtosis value for most variables is within +1 and -1 . For a few variables these values are slightly above these threshold/ cutoff. Only for freshness this assumption has broken, since the Skewness and Kurtosis value are much beyond the threshold / cut off.

Co linearity Diagnostics ${ }^{\text {a }}$

| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | (Constant) | Brand Image | Price |
| 1 | 1 | 12.034 | 1.000 | . 00 | . 00 | . 00 |
|  | 2 | . 492 | 4.946 | . 00 | . 00 | . 00 |
|  | 3 | . 108 | 10.552 | . 00 | . 00 | . 00 |
|  | 4 | . 087 | 11.766 | . 01 | . 00 | . 06 |
|  | 5 | . 069 | 13.208 | . 00 | . 00 | . 02 |
|  | 6 | . 047 | 16.072 | . 00 | . 03 | . 06 |
|  | - 7 | . 040 | 17.404 | . 00 | . 01 | . 02 |
|  | 8 | . 033 | 19.003 | . 00 | . 14 | . 34 |
|  | 9 | . 032 | 19.453 | . 01 | . 05 | . 04 |
|  | 10 | . 022 | 23.611 | . 01 | . 00 | . 10 |
|  | 11 | . 018 | 25.993 | . 01 | . 41 | . 36 |
|  | 12 | . 017 | 26.356 | . 01 | . 35 | . 01 |
|  | 13 | . 002 | 72.482 | . 96 | . 00 | . 00 |

a. Dependent Variable: Extent of purchase decision on above factors

Collinearity Diagnostics ${ }^{\text {a }}$

| Model | Dimension | Variance Proportions |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Taste | Quality | Advt. | Packaging design | Friends | Labeling |
| 1 | 1 | . 00 | . 00 | . 00 | . 00 | . 00 | . 00 |
|  | 2 | . 00 | . 00 | . 00 | . 01 | . 02 | . 02 |
|  | 3 | . 00 | . 00 | . 02 | . 08 | . 10 | . 00 |
|  | 4 | . 01 | . 01 | . 09 | . 05 | . 00 | . 00 |
|  | 5 | . 00 | . 00 | . 09 | . 12 | . 54 | . 01 |
|  | 6 | . 07 | . 15 | . 08 | . 10 | . 01 | . 01 |
|  | -7 | . 01 | . 00 | . 00 | . 04 | . 18 | . 82 |
|  | 8 | . 00 | . 00 | . 22 | . 34 | . 01 | . 03 |
|  | 9 | . 23 | . 03 | . 29 | . 23 | . 11 | . 09 |
|  | 10 | . 00 | . 01 | . 00 | . 02 | . 01 | . 00 |
|  | 11 | . 42 | . 12 | . 10 | . 01 | . 02 | . 00 |
|  | 12 | . 23 | . 67 | . 10 | . 00 | . 00 | . 00 |
|  | 13 | . 00 | . 00 | . 01 | . 00 | . 00 | . 01 |

a. Dependent Variable: Extent of purchase decision on above factors

| Co linearity Diagnostics ${ }^{\text {a }}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Model | Dimension | Variance Proportions |  |  |  |
|  |  | Offers | Freshness | Retailers <br> Influence | Availability of Range Products |
| 1 | 1 | . 00 | . 00 | . 00 | . 00 |
|  | 2 | . 04 | . 00 | . 01 | . 01 |
|  | 3 | . 45 | . 00 | . 01 | . 02 |
|  | 4 | . 00 | . 01 | . 03 | . 07 |
|  | 5 | . 02 | . 00 | . 02 | . 02 |
|  | 6 | . 03 | . 00 | . 04 | . 15 |
|  | - 7 | . 41 | . 00 | . 01 | . 00 |
|  | 8 | . 00 | . 01 | . 00 | . 02 |
|  | 9 | . 01 | . 01 | . 01 | . 02 |
|  | 10 | . 00 | . 01 | . 73 | . 66 |
|  | 11 | . 00 | . 01 | . 10 | . 01 |
|  | 12 | . 00 | . 01 | . 04 | . 01 |
|  | 13 | . 03 | . 94 | . 00 | . 00 |


| Collinearity Diagnostics ${ }^{\text {a }}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model | Dimension | Variance Proportions |  |  |  |  |  |
|  |  | Taste | Quality | Advt. | Packaging design | Friends | Labeling |
| 1 | 1 | . 00 | . 00 | . 00 | . 00 | . 00 | . 00 |
|  | 2 | . 00 | . 00 | . 00 | . 01 | . 02 | . 02 |
|  | 3 | . 00 | . 00 | . 02 | . 08 | . 10 | . 00 |
|  | 4 | . 01 | . 01 | . 09 | . 05 | . 00 | . 00 |
|  | 5 | . 00 | . 00 | . 09 | . 12 | . 54 | . 01 |
|  | 6 | . 07 | . 15 | . 08 | . 10 | . 01 | . 01 |
|  | 7 | . 01 | . 00 | . 00 | . 04 | . 18 | . 82 |
|  | 8 | . 00 | . 00 | . 22 | . 34 | . 01 | . 03 |
|  | 9 | . 23 | . 03 | . 29 | . 23 | . 11 | . 09 |
|  | 10 | . 00 | . 01 | . 00 | . 02 | . 01 | . 00 |
|  | 11 | . 42 | . 12 | . 10 | . 01 | . 02 | . 00 |
|  | 12 | . 23 | . 67 | . 10 | . 00 | . 00 | . 00 |
|  | 13 | . 00 | . 00 | . 01 | . 00 | . 00 | . 01 |

a. Dependent Variable: Extent of purchase decision on above factors

| Residuals Statistics $^{\mathbf{a}}$ |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
|  | Minimum | Maximum | Mean | Std. Deviation | N |  |
| Predicted Value | 4.15 | 5.22 | 4.83 | .203 | 482 |  |
| Residual | -1.074 | .684 | .000 | .321 | 482 |  |
| Std. Predicted Value | -3.345 | 1.949 | .000 | 1.000 | 482 |  |
| Std. Residual | -3.303 | 2.104 | .000 | .987 | 482 |  |

a. Dependent Variable: Extent of purchase decision on above factors

The SPSS output labeled Statistics show Skewness and Kurtosis value for extent of purchase decision on above factor Brand image, Price, Taste, Quality, Advertisements, Packaging design, Friends, Labeling, Offers, Freshness, Retailers influence, Availability of range products between +1 and -1 thus the assumption of normality has been met. We therefore use parametric statistics.

Figure 5.56


Interpretation: The above graph shows scattered plot for Brand image and purchase decision since the regression line is flat there is no relationship between Brand image and purchase decision.

Figure 5.57

## Partial Regression Plot

Dependent Variable: Extent of purchase decision on above factors


Interpretation: The above graph shows scattered plot for Price and purchase decision since the regression line is flat there is no relationship between Price and purchase decision.

Figure 5.58


Interpretation: The above graph shows scattered plot for Taste and purchase decision since the regression line is uphill there is a positive relationship between Taste and purchase decision.

Figure 5.59


Interpretation: The above graph shows scattered plot for quantity and purchase decision since the regression line is uphill there is a positive relationship between Quantity and purchase decision.

Figure 5.60


Interpretation: The above graph shows scattered plot for Advertisement and purchase decision since the regression line is downhill there is a negative relationship between Advertisement and purchase decision.

Figure 5.61


Interpretation: The above graph shows scattered plot for Packaging design and purchase decision since the regression line is flat there is no relationship between Packaging design and purchase decision.

Figure 5.62

## Partial Regression Plot

Dependent Variable: Extent of purchase decision on above factors


Interpretation: The above graph shows scattered plot for Friends and purchase decision since the regression line is downhill there is a negative relationship between Friends and purchase decision.

Figure 5.63


Interpretation: The above graph shows scattered plot for Labeling and purchase decision since the regression line is flat there is no relationship between Labeling and purchase decision.

Figure 5.64

## Partial Regression Plot

Dependent Variable: Extent of purchase decision on above factors


Interpretation: The above graph shows scattered plot for Offers and purchase decision since the regression line is flat there is no relationship between Offers and purchase decision.

Figure 5.65


Interpretation: The above graph shows scattered plot for Freshness and purchase decision since the regression line is uphill there is a positive relationship between Freshness and purchase decision.

Figure 5.66


Interpretation: The above graph shows scattered plot for Retailers influence and purchase decision since the regression line is uphill there is a positive relationship between Retailers influence and purchase decision.

Figure 5.67

## Partial Regression Plot

## Dependent Variable: Extent of purchase decision on above factors



Interpretation: The above graph shows scattered plot for Availability of range of products and purchase decision since the regression line is flat there is no relationship between Availability of range of products and purchase decision.

## HYPOTHESIS 2

## PURPOSE:

To study whether there is a relationship between age and quantity of milk bought per day.

Statistical test: Chi-square test of contingency
Null Hypothesis
$\mathrm{H}_{0}$ : There is no relationship between Age and quantity of milk bought per day.

## Alternative Hypothesis

$\mathrm{H}_{1}$ : There is a significant relationship between Age and quantity of milk bought per day.
Level of significance $\alpha=0.05$

## Quantity * Age Cross tabulation:



## Chi-square test of contingency:

| Chi-Square Tests |  |  |  |
| :--- | ---: | ---: | ---: |
|  | Value | df | Asymp. Sig. <br> (2-sided) |
| Pearson Chi-Square | $74.125^{\mathrm{a}}$ | 6 | .000 |
| Likelihood Ratio | 71.750 | 6 | .000 |
| Linear-by-Linear Association | 45.276 |  | 1 |

a. 2 cells $(16.7 \%)$ have expected count less than 5 . The minimum expected count
is 1.12 .
Interpretation: Chi-Square test is significant at 5 percent level of significance.

## Observation:

$\chi^{2}(6)=74.125, \mathrm{p}$-value $(0.000)<0.05$

## Conclusion:

Since p -value ( 0.000 ) is less than level of significance ( 0.05 ). We reject the null hypothesis and conclude that there is significant relationship between age and quantity of milk consumed per day.

## Symmetric Measures:

| Symmetric Measures |  |  |  |
| :--- | :--- | ---: | ---: |
| Nominal by Nominal | Phi | Value | Approx. Sig. |
|  | Cramer's V | .385 | .000 |
|  | Contingency Coefficient | .272 | .000 |
|  | .359 | .000 |  |
| N of Valid Cases |  | 500 |  |

Phi $=0.385$
Cramer's V = 0.272
Contingency Coefficient $=0.359$
Conclusion: There is a significant relationship between Age and quantity of milk consumed.
Interpretation: It is interesting to note that 500 ml is mostly bought by people of age group less than 30 years, 500 to 1000 ml is mostly bought by people of age group 31 to 40 years, and above 1000 ml is evenly spread between people of age group 41 to 50 years.

## HYPOTHESIS 3

## PURPOSE:

To study whether there is a relationship between Gender and quantity of milk bought per day.

Statistical test: Chi-square test of contingency
Null Hypothesis
$\mathrm{H}_{0}$ : There is no relationship between Gender and quantity of milk bought per day.

## Alternative Hypothesis

$\mathrm{H}_{1}$ : There is a significant relationship between Gender and quantity of milk bought per day.
Level of significance $\alpha=0.05$
Quantity * Sex (Gender) Cross tabulation:
Quantity * Sex Cross tabulation

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | male | female | Total |
| Quantity | 500 ml | Count | 121 | 121 | 242 |
|  |  | Expected Count | 160.2 | 81.8 | 242.0 |
|  |  | \% within Quantity | 50.0\% | 50.0\% | 100.0\% |
|  |  | \% within Sex | 36.6\% | 71.6\% | 48.4\% |
|  |  | \% of Total | 24.2\% | 24.2\% | 48.4\% |
|  | $500-1000 \mathrm{ml}$ | Count | 194 | 46 | 240 |
|  |  | Expected Count | 158.9 | 81.1 | 240.0 |
|  |  | \% within Quantity | 80.8\% | 19.2\% | 100.0\% |
|  |  | \% within Sex | 58.6\% | 27.2\% | 48.0\% |
|  |  | \% of Total | 38.8\% | 9.2\% | 48.0\% |
|  | above 1000 ml | Count | 16 | 2 | 18 |
|  |  | Expected Count | 11.9 | 6.1 | 18.0 |
|  |  | \% within Quantity | 88.9\% | 11.1\% | 100.0\% |
|  |  | \% within Sex | 4.8\% | 1.2\% | 3.6\% |
|  |  | \% of Total | 3.2\% | .4\% | 3.6\% |
| Total |  | Count | 331 | 169 | 500 |
|  |  | Expected Count | 331.0 | 169.0 | 500.0 |
|  |  | \% within Quantity | 66.2\% | 33.8\% | 100.0\% |
|  |  | \% within Sex | 100.0\% | 100.0\% | 100.0\% |
|  |  | \% of Total | 66.2\% | 33.8\% | 100.0\% |

## Chi-square test of contingency:

| Chi-Square Tests |  |  |  |
| :--- | ---: | ---: | ---: |
|  | Value | df | Asymp. Sig. <br> (2-sided) |
| Pearson Chi-Square | $55.493^{\mathrm{a}}$ | 2 | .000 |
| Likelihood Ratio | 57.116 | 2 | .000 |
| Linear-by-Linear Association | 52.351 | 1 | .000 |
| N of Valid Cases | 500 |  |  |

a. 0 cells $(.0 \%)$ have expected count less than 5 . The minimum expected count is 6.08 .

Interpretation: Chi-Square test is significant at 5 percent level of significance.

## Observation:

$$
\chi^{2}(2)=55.493, p \text {-value }(0.000)<0.05
$$

Conclusion: Since p-value ( 0.000 ) is less than level of significance ( 0.05 ). We reject the null hypothesis and conclude that there is a significant relationship between Gender and Quantity of milk bought/consumed per day.

## Symmetric Measures:

| Symmetric Measures |  |  |  |
| :--- | :--- | ---: | ---: |
| Nominal by Nominal | Phi | Value | Approx. Sig. |
|  | Cramer's V | .333 | .000 |
|  | Contingency Coefficient | .333 | .000 |
| N of Valid Cases |  | .316 | .000 |

Phi $=0.333$
Cramer's V = 0.333
Contingency Coefficient $=0.316$
Conclusion: There is a moderate significant relationship between Gender and quantity of milk consumed.

Interpretation : It is interesting to note that 500 ml is evenly distributed between male and female, 80.8 percent male consume 500 ml to 1000 ml and 88.9 percent male consume above 1000 ml .

## HYPOTHESIS 4

## PURPOSE:

To study whether there is a relationship between Monthly income and quantity of milk bought per day.

Statistical test: Chi-square test of contingency

## Null Hypothesis

$\left(H_{o}\right)$ : There is no relationship between Monthly income and quantity of milk bought per day.

## Alternative Hypothesis

$\left(\mathrm{H}_{1}\right)$ : There is a significant relationship between Monthly income and quantity of milk bought per day.

Level of significance $\alpha=0.05$
Quantity * Monthly Income Cross tabulation:
Quantity * Monthly Income Cross tabulation

|  |  |  | Monthly Income |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | below <br> Rs. 10 <br> 000 | $\begin{gathered} \hline \text { Rs. } 10 \\ 001-20 \\ 000 \end{gathered}$ | $\begin{gathered} \hline \text { Rs. } 20 \\ 001-30 \\ 000 \end{gathered}$ | $\begin{gathered} \hline \text { Rs. } 30 \\ 001-40 \\ 000 \end{gathered}$ | Above <br> Rs. 40 <br> 001 |  |
| Quantity | 500 ml | Count | 171 | 50 | 21 | 0 | 0 | 242 |
|  |  | Expected Count | 140.4 | 71.6 | 25.2 | 3.4 | 1.5 | 242.0 |
|  |  | \% within Quantity | 70.7\% | 20.7\% | 8.7\% | .0\% | .0\% | 100.0\% |
|  |  | $\%$ within Monthly <br> Income | 59.0\% | 33.8\% | 40.4\% | .0\% | .0\% | 48.4\% |
|  |  | \% of Total | 34.2\% | 10.0\% | 4.2\% | .0\% | . $0 \%$ | 48.4\% |
|  | $\begin{aligned} & \hline 500-1000 \\ & \mathrm{ml} \end{aligned}$ | Count | 114 | 91 | 29 | 5 | 1 | 240 |
|  |  | Expected Count | 139.2 | 71.0 | 25.0 | 3.4 | 1.4 | 240.0 |
|  |  | \% within Quantity | 47.5\% | 37.9\% | 12.1\% | 2.1\% | .4\% | 100.0\% |
|  |  | \% within Monthly | 39.3\% | 61.5\% | 55.8\% | 71.4\% | 33.3\% | 48.0\% |
|  |  | Income <br> \% of Total | 22.8\% | 18.2\% | 5.8\% | 1.0\% | .2\% | 48.0\% |
|  | above <br> 1000 ml | Count | 5 | 7 | 2 | 2 | 2 | 18 |
|  |  | Expected Count | 10.4 | 5.3 | 1.9 | . 3 | . 1 | 18.0 |
|  |  | \% within Quantity | 27.8\% | 38.9\% | 11.1\% | 11.1\% | 11.1\% | 100.0\% |
|  |  | $\%$ within Monthly | 1.7\% | 4.7\% | 3.8\% | 28.6\% | 66.7\% | 3.6\% |
|  |  | \% of Total | 1.0\% | 1.4\% | .4\% | .4\% | .4\% | 3.6\% |
| Total |  | Count | 290 | 148 | 52 | 7 | 3 | 500 |
|  |  | Expected Count | 290.0 | 148.0 | 52.0 | 7.0 | 3.0 | 500.0 |
|  |  | \% within Quantity | 58.0\% | 29.6\% | 10.4\% | 1.4\% | .6\% | 100.0\% |
|  |  | \% within Monthly | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
|  |  | Income |  |  |  |  |  |  |
|  |  | \% of Total | 58.0\% | 29.6\% | 10.4\% | 1.4\% | .6\% | 100.0\% |


| Chi-Square Tests |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | :---: | :---: | :---: |
|  | Value | df | Asymp. Sig. <br> (2-sided) |  |  |  |
| Pearson Chi-Square | $79.149^{\mathrm{a}}$ | 8 | .000 |  |  |  |
| Likelihood Ratio | 52.136 | 8 | .000 |  |  |  |
| Linear-by-Linear Association | 37.789 |  | 1 |  |  |  |

a. 7 cells $(46.7 \%)$ have expected count less than 5 . The minimum expected count
is .11 .
Interpretation: Chi-Square test is significant at 5 percent level of significance.

## Observation:

$\chi^{2}(8)=79.149$, p-value $(0.000)<0.05$
Conclusion: Since p-value ( 0.000 ) is less than level of significance ( 0.05 ). We reject the null hypothesis and conclude that there is significant relationship between Monthly income and Quantity of milk consumed per day.

## Symmetric Measures:

Symmetric Measures

|  |  | Value | Approx. Sig. |
| :--- | :--- | ---: | ---: |
| Nominal by Nominal | Phi | .398 | .000 |
|  | Cramer's V | .281 | .000 |
|  | Contingency Coefficient | .370 | .000 |
| N of Valid Cases |  | 500 |  |

Phi $=0.398$
Cramer's V = 0.281
Contingency Coefficient $=0.370$
Conclusion: There is a moderate relationship between Monthly income and quantity of milk consumed.

Interpretation: It is interesting to note that 70.7 percent use 500 ml quantity and 27.8 percent use 1000 ml quantity in the income group below Rs-10000. Whereas it is observed that 37.9 percent use 1000 ml quantity the income group between Rs-10000 to 20000.

## HYPOTHESIS 5

## PURPOSE:

To study whether there is a relationship between Type of family and quantity of milk bought per day.

## Statistical test: Chi-square test of contingency

## Null Hypothesis

$\mathrm{H}_{0}$ : There is no relationship between Type of family and quantity of milk bought per day. Alternative Hypothesis
$\mathrm{H}_{1}$ : There is a significant relationship between Type of family and quantity of milk bought per day.
Level of significance $\alpha=0.05$
Quantity * Type of Family Cross tabulation:
Quantity * Type of Family Cross tabulation


| Chi-Square Tests |  |  |  |
| :--- | ---: | ---: | ---: |
|  |  |  |  |
| Value | df | Asymp. Sig. <br> (2-sided) |  |
| Pearson Chi-Square | $35.837^{\mathrm{a}}$ | 2 | .000 |
| Likelihood Ratio | 36.091 | 2 | .000 |
| Linear-by-Linear Association | 35.627 | 1 | .000 |
| N of Valid Cases | 500 |  |  |

a. 0 cells $(.0 \%)$ have expected count less than 5 . The minimum expected count is 6.44.

Interpretation: Chi-Square test is significant at 5 percent level of significance.
Observation:

$$
\chi^{2}(2)=35.837, p \text {-value }(0.000)<0.05
$$

Conclusion: Since p-value (0.000) is less than level of significance (0.05). We reject the null hypothesis and conclude that there is significant relationship between Type of family and Quantity of milk consumed per day.

Symmetric Measures:

## Symmetric Measures

|  |  | Value | Approx. Sig. |
| :--- | :--- | ---: | ---: |
| Nominal by Nominal | Phi | .268 | .000 |
|  | Cramer's V | .268 | .000 |
|  | Contingency Coefficient | .259 | .000 |
| N of Valid Cases |  | 500 |  |

Phi $=0268$
Cramer's V $=0.268$
Contingency Coefficient $=0.259$
Conclusion: There is a moderate relationship between Type of family and quantity of milk consumed.

Interpretation: It is interesting to note that 500 ml is mostly bought by nuclear family i.e. 76.4 percent, 500 to 1000 ml is almost evenly distributed. And 1000 ml mostly bought by joint family i.e. 72.2 percent.

## HYPOTHESIS 6

## PURPOSE:

To study whether there is a relationship between Age and Pack size of milk bought per day.

Statistical test: Chi-square test of contingency
Null Hypothesis
$\mathrm{H}_{0}$ : There is no relationship between Age and Pack size of milk bought per day.

## Alternative Hypothesis

$\mathrm{H}_{1}$ : There is a significant relationship between Age and Pack size of milk bought per day.
Level of significance $\alpha=0.05$
Pack Size* Age Cross tabulation:
Pack Size * Age Cross tabulation


| Chi-Square Tests |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Value | df | Asymp. Sig. (2-sided) |
| Pearson Chi-Square | $15.884^{\text {a }}$ | 3 | . 001 |
| Likelihood Ratio | 14.103 | 3 | . 003 |
| Linear-by-Linear Association | 5.216 | 1 | . 022 |
| N of Valid Cases | 499 |  |  |

a. 2 cells $(25.0 \%)$ have expected count less than 5 . The minimum expected count is 2.34 .

Interpretation: Chi-Square test is significant at 5 percent level of significance.

## Observation:

$\chi^{2}(6)=74.125, p$-value $(0.000)<0.05$
Since p -value $(0.000)$ is less than level of significance ( 0.05 ). We reject the null hypothesis and conclude that there is significant relationship between Age and Pack size of milk bought per day.

Symmetric Measures
Symmetric Measures

|  | Symmetric Measures |  |  |
| :--- | :--- | ---: | ---: |
| Nominal by Nominal | Phi | Value | Approx. Sig. |
|  | Cramer's V | .178 | .001 |
|  | Contingency Coefficient | .178 | .001 |
| N of Valid Cases |  | .176 | .001 |

Phi $=0.178$
Cramer's V $=0.178$
Contingency Coefficient $=0.176$
Conclusion: There is a moderate relationship between Age and Pack size of milk consumed.

Interpretation: It is interesting to note that 500 ml Pack size is mostly bought by people of age group 31-40 years family i.e. 46.7 percent, 1000 ml Pack is mostly bought by people age group up to 30 years i.e. 35.9 percent.

## HYPOTHESIS 7

## PURPOSE:

To study whether population parameter has a specific value i.e.to finds out whether the proportion of people buying high fat milk is more than 80 percent.

Background: A pilot study of 50 consumers revealed that more than 80 percent ( 42 respondents) preferred high fat milk thus a test whether these findings hold true in the population.

## Statistical Test: Z Test of proportionality ( $\mathrm{n}>\mathbf{3 0}$ )

## Null Hypothesis

$\mathrm{H}_{0}$ : Proportion of consumers buying high fat milk is equal to 80 percent ( $\mathrm{p}=80 \%$ ).

## Alternate Hypothesis

$\mathrm{H}_{1}$ : Proportion of consumers buying high fat milk is more than 80 percent (i.e. $\mathrm{p}>80 \%$ ).

$$
\begin{aligned}
& \boldsymbol{Z}=\frac{\bar{P}-\boldsymbol{P}}{\sqrt{\frac{\boldsymbol{p} * \boldsymbol{q}}{n}}} \\
& z=\frac{0.91-0.80}{\sqrt{\frac{0.80 * 0.20}{500}}} \\
& z=\frac{0.11}{\sqrt{\frac{0.16}{500}}} \\
& z=\frac{0.11}{\sqrt{0.00032}} \\
& z=\frac{0.11}{0.017} \\
& z=6.47
\end{aligned}
$$

The computed value of Z is 6.47

Figure 5.68

## Critical value of Z at $5 \%$ level of significance



Conclusion: The critical value of Z for $5 \%$ level of significance and right-tailed test is +1.645 since the computed value (6.47) is more than the critical value (1.645). The null hypothesis is rejected and it is therefore concluded that the proportion of people preferring high fat milk is more than 80 percent.

## HYPOTHESIS 8

## PURPOSE:

To study there is a relationship between brand preferred and availability of brand.

Statistical test: Nominal by interval Eta test

## Null Hypothesis

$\mathrm{H}_{0}$ : There is no relationship between brand preference and availability of brand.

## Alternate Hypothesis

$\mathrm{H}_{1}$ : There is a significant relationship between brand preference and availability of brand.
Level of significance: $\alpha<0.1$ (percent of level of significance)
Brand Preferred * Availability of Brand Cross tabulation

| Count |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Availability |  |  |  | Total |
|  |  | somewhat important | important | very important | extremely <br> important |  |
| Brand | Gokul | 17 | 12 | 23 | 399 | 451 |
|  | Warana | 0 | 0 | 0 | 34 | 34 |
|  | Yalgud | 0 | 0 | 0 | 12 | 12 |
|  | Shahu | 0 | 1 | 0 | 2 | 3 |
| Total |  | 17 | 13 | 23 | 447 | 500 |

Directional Measures

|  |  | Value |  |
| :--- | :--- | :--- | ---: |
| Nominal by Interval | Eta | Brand Name Dependent | .094 |
|  |  | Availability Dependent | .112 |

Observation: Eta is significance at 10 percent level of significance, since p value (0.094) is less than level of significance ( 0.1 ). From the cross tabulation it can be seen that out of the 451 respondents who purchase "Gokul" 89 percent said availability is extremely important. All the 34 respondents who use "Warana" said availability is extremely important. All the 12 respondents who purchase "Yalgud" also said that availability is extremely important.

Conclusion: Based upon the statistical test we reject the null hypothesis and conclude that there is a significant relation between brand preferred and availability.

## CHAPTER-6

## FINDINGS, SUGGESTIONS, SUMMARY, CONTRIBUTION OF RESEARCHER AND FUTURE STRATEGIES, AND CONCLUSIONS

### 6.1 FINDINGS:

## 1. The demographic characteristic of respondents.

- Most of the respondents ( 44.80 percent) belonged to the age group of 31 to 40 years, followed by the age group up to 30 years ( 36.4 percent). (Refer Table No. 5.1)
- Among the total respondents majority of the respondents ( 66.20 percent) were male and rest of them were female ( 33.8 per cent). (Refer Table No. 5.2)
- While looking into the educational level $2 / 5^{\text {th }}(40.60$ percent $)$ of the respondents had completed Graduation followed by HSC (18.8 per cent), SSC, High school, Post Graduation and primary education respectively. (Refer Table No. 5.3)
- Self employed (Small service providers- 33.6 percent) and homemakers (27.6 percent) constitute the major (61.2 percent) occupational group among the respondents. (Refer Table No. 5.4)
- The general characteristics of the respondents revealed that majority of the respondents ( 58 percent) belonged to income groups below Rs. 10,000, and rest of the respondents ( 29.6 percent) belonged to income group Rs. 10001 to 20000. (Refer Table No. 5.5)
- Majority of the respondents ( 64.20 percent) were from nuclear families and the remaining were from joint families ( 35.8 percent). (Refer Table No. 5.6)
- The family size was from 4 to 6 members for 68.6 percent of the respondents followed by 23 percent having family size from 1 to 3 in selected wards of the city. (Refer Table No. 5.7)

2. The average monthly expenditure on food products was found to be the highest ( 40.28 percent) in case of Milk and milk products followed by expenditure on fats and oils (19.32). (Refer Table No. 5.8)
3. The analysis of the brand of milk consumed revealed that Gokul was the most ( 90.20 percent) preferred milk brand in Kolhapur city followed by Warana (6.8 percent). (Refer Table No. 5.9)
4. The study on the Quantity of milk consumed by respondents revealed that 500 ml ( 48.4 percent) and 500 to 1000 ml ( 48 percent) were almost equal. (Refer Table No. 5.10)
5. It was found that 500 ml packet was the most preferred (92.18) by majority. (Refer Table No. 5.11)
6. In regard to the study of frequency of purchasing milk it was revealed that Majority of the respondents (92.8) preferred purchasing milk daily. (Refer Table No. 5.12)
7. It was observed through the research that only 30 percent of the respondents were rarely examining the expiry date on the milk pouches. (Refer Table No. 5.13)
8. It was revealed as regards to the printed MRP on the milk pouches that majority of respondents ( 59.5 percent) were checking the MRP only sometime. (Refer Table No. 5.14)
9. It was understood that majority of the respondents ( 97 percent) were satisfied about the MRP charged by the shopkeepers. (Refer Table No. 5.15)
10. While looking into the adulteration in milk brands, most of the respondent ( 97.6 percent) never experienced the adulteration in the pouch of milk. (Refer Table No. 5.16)
11. More than half of the respondents were aware of the Laws and Consumer court. (Refer Table No. 5.17)
12. It was noticed that majority of the respondents ( 85 percent) never crosschecked the weight of milk pouches. (Refer Table No. 5.18)
13. It was revealed that majority of the respondents ( 90.4 percent) opined that their complaint has been taken care by the shopkeepers. (Refer Table No. 5.19)
14. The study related to the brands known to the respondents revealed that almost all of the respondents ( 100 percent) were aware about Gokul Brand as well as Warana Brand followed by Yalgud ( 95 percent) and Shahu ( 76.8 percent) milk brand. (Refer Table No. 5.20)
15. Sources of information for various milk brands

- For Gokul brand, newspaper ( 95.8 percent) was the major important source for getting information and then relatives ( 54.2 percent) followed by window display ( 55.8 percent). (Refer Table No. 5.21)
- For Warana brand, newspaper ( 95.4 percent) was the major source for getting information and then friends ( 52.5 percent) followed by window display ( 35.1 percent). (Refer Table No. 5.22)
- For Yalgud brand, newspaper ( 95.6 percent) was the major source for getting information and then friends ( 51.6 percent) followed by window display ( 25.9 percent). (Refer Table No. 5.23)
- For Shahu brand, newspaper ( 95.3 percent) was the major source for getting information and then friends ( 54.2 percent). (Refer Table No. 5.24)

16. The study revealed that most of the respondents ( 39.8 percent) agreed that they were influenced by advertisement campaign promoting milk brands, while 9.2 percent respondents strongly agreed on the influence of advertisement whereas 35 percent respondents disagree with the influence of advertisement campaign promoting milk brands. (Refer Table No. 5.30)
17. Retail outlet (Kirana) was major source for purchase of milk. (Refer Table No. 5.31)
18. Majority of the respondents ( 91 percent) preferred Buffalo Milk (High Fat), followed by Toned milk (5.6) and Cow milk (3.4). (Refer Table No. 5.32)
19. Respondents First preferred milk brand and their second preference

- Analysis with respect to the first preference of the respondents revealed that majority of the respondents ( 95 percent) preferred Gokul brand as first choice whereas only meager respondents ( 5 percent) preferred the same as second choice. (Refer Table No. 5.33)
- Only meager respondents ( 10 percent) preferred Warana as their first choice whereas majority preferred the same as their second choice ( 90 percent). (Refer Table No. 5.34)
- So far as Yalgud brand was concerned, only a few preferred Yalgud brand as their first choice ( 19 percent) and majority as their second preference (81 percent). (Refer Table No. 5.35)
- Meager respondents (5 percent) preferred Shahu milk as their first choice and majority as their second preference ( 95 percent). (Refer Table No. 5.36)

20. The study with reference to Quality Satisfaction of the respondents with the existing brands revealed that majority of the respondents ( 50.8 percent) were satisfied with the quality and rest of them were highly satisfied (49 percent)with the quality of milk brands. (Refer Table No. 5.37)
21. Important attributes that affect purchase of milk brands.

- Analysis with respect to attributes that affect the purchase of milk brand revealed that majority of respondents ( 98.4 percent) opined quality is extremely important. (Refer Table No. 5.39)
- It was observed that majority of respondents ( 98 percent) opined availability is extremely important. (Refer Table No. 5.40)
- It was also noticed that majority of respondents ( 92 percent) opined taste is extremely important. (Refer Table No. 5.41)
- It was noticed that majority of the respondents (53 percent) opined family liking is very important. (Refer Table No. 5.42)
- It was noticed that 46 percent of the respondent's opined influence of friends is somewhat important. (Refer Table No. 5.43)
- It was noticed that 45 percent of the respondent's opined influence of relatives is somewhat important. (Refer Table No. 4.44)
- The study also revealed that a huge majority ( 94 percent) of respondents said satisfaction is extremely important. (Refer Table No. 4.45)
- The study shows that majority ( 62 percent) of respondents said impulse buying is very important. (Refer Table No. 4.46)
- It was seen that 40 percent of the respondents were giving very much importance to planned purchase. (Refer Table No. 4.47)


## 22. Reasons for not purchasing the milk brand.

- The major reason for not purchasing Gokul brand was health consciousness. (Refer Table No. 5.48)
- For Warana the major reason for not purchase was non-availability. (Refer Table No. 5.49)
- For Yalgud also, non-availability was the major reason. (Refer Table No. 5.50)
- Brand Shahu was disliked by the majority of respondents. (Refer Table No. 5.51)
- Brand Chitale was disliked by 69 percent of respondents. (Refer Table No. 5.52)


## 23. Important points in purchasing milk brands

- Quantity was very important factor for purchase of milk to 63.1 percent of the respondents. (Refer Table No. 5.54)
- Another factor which extremely influences for purchase was Brand image by 68.60 percent of the respondents. (Refer Table No. 5.55)
- Availability was the extremely important factor for the purchase of milk to 89.4 percent of the respondents. (Refer Table No. 5.56)
- It was noticed that Majority of the respondents ( 50.4 percent) opined that Price is very important point regarding the purchase of milk brands. (Refer Table No. 5.57)
- Taste was a very important factor for the purchase of milk to 66.4 percent of the respondents. (Refer Table No. 5.58)
- Quality was a very important factor for the purchase of milk to 49.6 percent of the respondents. (Refer Table No. 5.59)
- Advertising was somewhat an important factor for purchasing milk to 46.3 percent respondents while important for 39.5 percent respondents. (Refer Table No. 5.60)
- Packaging design was somewhat an important factor to 51 percent respondents while 29.1 percent opined the same as very least important point. (Refer Table No. 5.61)
- Friends were somewhat an important factor for purchasing milk to 49.2 percent respondents whereas 33.3 percent opined friends as least important. (Refer Table No. 5.62)
- Labeling was the least important factor for purchasing milk to 46.4 of the respondents regards to the purchase of milk brands. (Refer Table No. 5.63)
- Offers were the least important factor for purchasing milk to 46.2 of the respondents whereas 37.1 percent opined offers as a somewhat important point. (Refer Table No. 5.64)
- Freshness was an extremely important point regards to the purchase of milk brands to majority of the respondents ( 97.4 percent). (Refer Table No. 5.65)
- Retailers influence was a very important factor for purchase of milk to 58.3 percent of respondents while 25.9 percent opined it as a somewhat important point. (Refer Table No. 5.66)
- Availability of range of products was a very important factor for purchase of milk to 43.9 percent respondents. (Refer Table No. 5.67)

24. It was found that majority of respondents ( 81.4 percent) strongly agree that extent of purchase decision depend on factors like Quantity, Brand Image, Availability, Price, Taste, Quality, Advertisements, Packaging Design, Friends, Labeling, Offers, Freshness, Retailers influence and Availability of range of products. (Refer Table No. 5.68)
25. The majority of the respondents (99.6percnt) have not changed the brand in the last six months. (Refer Table No. 5.69)
26. It was revealed through the study that Shopkeepers ( 87 percent) were the major source of information to the respondents to know about alternate brands. (Refer Table No. 5.70)
27. If the preferred brand is not available then 81.3 percent of the respondents preferred to go to another shop. (Refer Table No. 5.71)
28. The majority of the respondents ( 57 percent) strongly agree that they are satisfied with the milk brand they purchase whereas 42.6 percent agreed that they are satisfied with the quality of milk. (Refer Table No. 5.72)
29. It was noticed that 60.4 percent respondents were brand loyal. (Refer Table No. 5.73)
30. The analyses revealed that majority of the respondents ( 62.2 percent) strongly agree that they will recommend the milk brand to others. And 37.6 percent respondents agreed to recommend the same brand to buy other people. (Refer Table No. 5.74)

### 6.2 SUGGESTIONS

The suggestions are based on the outcome of the research work carried by the researcher.

1. The most preferred milk brand in Kolhapur city was Gokul, therefore in order to tap the market efforts should be taken Warana, Yalgud as well as Shahu Brand.
2. Newspaper (above 95 percent) was the major important source for getting information but window display was less with compared to Gokul for all the brands. Efforts should be made to increase the window display.
3. All the brands should ensure the availability of packing in 500 ml and 1000 ml .
4. All milk brands should make sure that the information related to expiry date on the milk pouches, MRP should reach to consumer frequently and demo of cross-checking of the weight of milk pouches should be conducted.
5. The Shahu milk company should take awareness campaigning to reach the public at large.
6. All the companies should arrange advertisement campaign promoting milk brands with emphases on quality aspect.
7. All the brands except Gokul should make their brands available at Retail outlet (Kirana). As the availability will help the consumer to opt the brand as their first choice.
8. Efforts should be taken for the milk Brand Shahu and Chitale to position the liked brands.
9. All the players in pouched milk sector should note that extent of purchase decision depend on factors like Quantity, Brand Image, Availability, Price, Taste, Quality, Advertisements, Packaging Design, Friends, Labeling, Offers, Freshness, Retailers influence and Availability of range of products.
10. All the players in pouched milk sector should note there is a significant relationship between monthly income and quantity of milk consumed per day, type of family and Quantity of milk consumed per day and brand preferred and availability. Therefore marketing efforts should be focused on the income, total family members and availability of the milk brand.

### 6.3 SUMMARY

The term consumer behavior can be defined as the behavior that consumers display in searching for purchasing, using, evaluating and disposing of products and services that they expect will satisfy their needs. To succeed in this dynamic and rapidly evolving industry as in all others, marketers need to know everything they can do about consumers - what they want, what they think, what they buy, how, when and why. They need to understand the personal and group influences, which affect consumer decisions and how these decisions are made.

In order to enter and tap the potential of markets in India, thorough understanding of consumer behavior is the need of the hour. Understanding and monitoring use behavior of consumers is also vital for producers of products and services which help them for market development, new product design, packaging and promotional efforts, so as to suit for milk consumers. Hence the study on "A STUDY ON CONSUMERS' BUYING BEHAVIOR TOWARDS PROCESSED LIQUID PACKED MILK IN KOLHAPUR CITY, MAHARASHTRA." was undertaken.

The study was undertaken mainly by collecting primary data. For the purpose of research the ten wards in Kolhapur city were selected. A cluster sampling procedure was undertaken to select the ward and also for selecting 500 households from the wards selected.

A Structured interview schedule was prepared after seeking the opinions of experts in the field. A pilot study was also conducted to finalize questionnaire and the variables relevant for measuring the Socio economic profile, buyer behavior of consumers towards milk also to identify the major factors influencing the purchase behavior milk consumers.

To analyse the objectives of the research, percentage analysis, indices, ranking methods were used. Statistical software SPSS, version-21 was used and percentage method, pie chart, Case Summary, Descriptive Statistics, Partial regression plots, Frequency tables, Cross tabulation, Chi- square test of contingency, Multiple regression Analysis, Assumption of Normality, one sample Z-test, Nominal by interval Eta test were used for hypothesis testing so as to find out the agreement among the respondents.

Based on the above objectives primary survey was conducted during the period and by using the above methodology research has been completed and results were drawn.

### 6.4 CONTRIBUTION OF THE RESEARCHER AND FUTRUE STRATEGIES:

The researcher has tried to critically evaluate the available literature on consumer behavior. Majority of the materials were merely in the form of popular articles and not based on any scientific, systematic and rigorous methodology. Further a few works available were not related to the topic and Kolhapur city. Hence a research gap was identified in the field of consumer behavior in only Kolhapur city. The researcher made a humble attempt to fill this gap.

The researcher examined mainly two dimensions in the study. These dimensions include the pre purchase. Purchase and post purchase behavior of consumers towards milk pouches and identifying the factors influencing the purchase decision of consumers for the same. Marketing is a game of warfare when a large number of sellers and buyers are operating in the market. Under the globalization environment there is increasing competition from state as well as national giants to the cutting edge state.

The researcher examined the behaviour and awareness of consumers towards branded processed milk pouch packets as well as the media of information. High fat milk was the most dominant type of milk. Researcher has tried to evaluate brand preferences of the consumers and factors influencing the purchase decisions. Researcher has revealed the importance of availability by evaluating alternate purchase plans of consumers. Researcher also studied demographic profile of respondents and their monthly expenditure on milk which observed as highest with compared to other food items. At the same time researcher keen studying quantity of milk consumed, consumers' awareness towards expiry date, MRP, adulteration laws related to consumer protection.

The findings of the study expose the dynamics of consumer behavior pattern of consumers in Kolhapur city. The first and foremost task in planning a marketing strategy is to create awareness of the existence of a particular brand in the market.

1. A study on the behavioral differences of consumers based on economic and demographic segments may be conducted.
2. This study attempted to identify the consumer behavior of selected milk buyers only. Similar type of studies may be conducted for large product basket.
3. Media influence on consumers can also be a future research area.
4. The other cities in Kolhapur district may be taken for future research.

### 6.5 MAJOR CONCLUSIONS

Kolhapur city market is extremely attractive in its vast potential but also provides challenges. A marketer needs to understand that consumers are not a homogenous lot. A marketer has to keen on lapping the potential of the market. He needs to understand the context of the product use and the behavior of consumers. This will aid in developing the products that are tailored to the needs of consumer. The study revealed the changing and dynamic consumer behavior in Kolhapur. The consumers are influencing them very much. Marketers have to frame appropriate marketing strategies keeping the city scenario and dynamics of consumer behavior.

1. The majority of the respondents belonged to the age category of 31 to 40 years.
2. The percentage of male respondents in the study was more than the female respondent's percentage. Most of the respondents were Graduates followed by HSC qualification and self employed. Majority of the respondents had a monthly income of less than Rs-10,000.
3. Analysis shows a dominance of nuclear family over joint family. A major portion of monthly income is spent on milk and milk products. The most preferred brand is Gokul followed by Warana. Pack size of 500 ml and 500 to 1000 ml are most preferred by the consumers in Kolhapur city. 500 ml milk pack size is the most preferred pack size in Kolhapur city.
4. Most of respondents buy milk daily. About $1 / 4^{\text {th }}$ of the respondents concerned about expiry details of the milk bought and sometimes checks MRP. Majority of the respondents never experienced adulteration in milk pouch. Majority of the respondents were aware about the consumer laws and consumer court.
5. Majority of the respondents never cross check weight of milk pouch. Shopkeepers in Kolhapur having effective complaint management system and complaints of the consumers are handled effectively.
6. Gokul and Warana milk brands are well known brands in Kolhapur region. Newspaper was the major source for getting information followed by relatives and window display.
7. Respondents are moderately influenced by advertisement campaign. Majority of the respondents purchase milk at retail outlet (Kirana) and preferred BM (High Fat), followed by Toned milk.
8. The majority of the respondents preferred Gokul as their first choice and preferred Warana as their second choice.
9. Respondents are satisfied with quality of the milk consumed and opined that quality, availability, taste, satisfaction, Brand image, Taste, Freshness was extremely important. The majority of the respondents opined family liking, Impulse buying, Planned purchase, Quantity, Price, Quality, Retailers influence, Availability of range of products very important.
10. The majority of the respondents said Influence of friends, Influence of Relatives, Advertisement, Packaging design somewhat important.
11. Health consciousness is a major reason for not purchasing Gokul milk brand.
12. The majority of the respondents said Labeling, Offers Least important.
13. The majority of the respondents have not changed the brand in last six months. The source of information for alternate brands was Shopkeepers followed by Relatives and Advertisement. The majority of the respondents preferred to go to other shop followed by buying another brand. The majority of the respondents strongly agree that they are satisfied with milk brand they purchase.
14. The majority of the respondents strongly agree that they will buy the same brand. The majority of the respondents strongly agree that they will recommend the milk brand for others to buy. There is a positive relationship between purchase decision and taste, quality, freshness, retailers influence. And there is a negative relationship between purchase decision and advertisement, friends and labeling.
15. There is a significant relationship between Age and quantity of milk consumed. There is a moderate significant relationship between Gender and quantity of milk consumed.
16. There is a moderate relationship between Monthly income and quantity of milk consumed.
17. There is a moderate relationship between Type of family and quantity of milk consumed.
18. There is a moderate relationship between Age and Pack size of milk consumed. The null hypothesis is rejected and it is therefore concluded that the proportion of people preferring high fat milk is more than 80 percent.

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## APPENDIX I INTERVIEW SCHEDULE

## "A STUDY ON CONSUMERS’ BUYING BEHAVIOR TOWARDS PROCESSED LIQUID PACKED MILK IN KOLHAPUR CITY, MAHARASHTRA." <br> (SCHEDULE FOR INDIVIDUAL CONSUMER FAMILIES) THE DATA WILL BE USED FOR RESEARCH PURPOSE ONLY

## Questionnaire

1. Name of the respondent :
2. Address
3. Age $: \quad \square$ up to 30, $\square 31-40, \square 41-50$, $\square 51$ - above
4. Sex :
5. Education : $\square$ Illiterate $\square$ Primary $\square$ High $\square$ SSC $\square$ HSC $\square$ Graduation $\square$ PG
6. Occupation : Professional (Salaried-Elite

Position) $\square$ Trader or Shop keeper (Self employed Trading) $\square$ Businessmen (Self employed Large Business)
Sales personnel $\square$ Teacher and University professor $\square$ Self employed (Small Service Providers) $\square$ Farmer and Unemployed $\square$ Homemaker
7. Monthly income (Rs) : $\square$ Below $10000 \quad \square 10001-20000$, $\square 20001-30000$, $\square 30001-40000, \quad \square$ Above 40001
8. Type of family $: \square$ Joint $\square$ Nuclear
9. Family details

| Family members | Number |
| :--- | :---: |
| Males |  |
| Females |  |
| Children |  |
| Total |  |

10. Monthly expenditure on food items:

| Items | Expenditure ( amount in Rs) |
| :--- | :--- |
| Cereals |  |
| Pulses |  |
| Fats and oils |  |
| Fruits and vegetables |  |
| Milk and milk products |  |
| RTE food products |  |
| Total |  |

## II) Specific Information:

1) Name of the brand of milk you consume $\qquad$
2) How much quantity of milk do you consume daily? (Please tick only one)
a) 200 ml b) 500 ml c$) 500 \mathrm{ml}$ to 1000 ml d ) Above 1000 ml
3) Size of the packet preferred? (Please tick only one)
a) $200 \mathrm{ml} \mathrm{b)} 500 \mathrm{ml} \mathrm{c}) 1000 \mathrm{ml}$
4) Frequency of purchase $\qquad$ (Please tick only one)

| Frequency | Milk Brand |
| :--- | :--- |
| Daily |  |
| Twice in a day |  |
| Whenever needed |  |
| Any other |  |

5) Do you examine the expiry date on milk pouch when you buy them?
Always
$\square$ Sometimes
$\square$ Rarely
Never
6) Do you check the Maximum Retail Price (MRP) on milk pouch?
Always
$\square$ Sometimes
Rarely
Never
7) Have you ever experienced shopkeeper selling it higher than the printed MRP?
a. Yes
b. No

If yes, do you know that this is illegal?
a. Yes
b. No
8) Have you ever experienced any adulteration in milk pouch in the past 6 months?
a. Yes
b. No
9) Are you aware of the laws and the consumer courts that are made specifically to safeguard the interest of customers?
a. Yes
b. No
If yes, please specify.
10) Have you ever cross checked the weights of the pouch?
a) Yes b) No
11) Was your complaint attended by shopkeeper to your satisfaction?
a) Yes b) No
12) Do you know the following milk brands?

| Milk Brands | Yes | No |
| :--- | :--- | :--- |
| Gokul |  |  |
| Warana |  |  |
| Yalgud |  |  |
| Shahu |  |  |
| Chitale |  |  |
| Krishna |  |  |
| Mayur |  |  |
| Sphurti |  |  |
| Morana |  |  |
|  |  |  |

13) Source of information for brand you are aware.

| Sources | Gokul | Wara <br> na | Yalg <br> ud | Shah <br> u | Chita <br> le | Krish <br> na | May <br> ur | Sphur <br> ti | Mora <br> na | Oth <br> er |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| T.V |  |  |  |  |  |  |  |  |  |  |
| Radio |  |  |  |  |  |  |  |  |  |  |
| Newspap <br> ers |  |  |  |  |  |  |  |  |  |  |
| Friends |  |  |  |  |  |  |  |  |  |  |
| Relatives |  |  |  |  |  |  |  |  |  |  |
| Retailers |  |  |  |  |  |  |  |  |  |  |
| Window <br> display |  |  |  |  |  |  |  |  |  |  |
| Any <br> other ( <br> specify) |  |  |  |  |  |  |  |  |  |  |

14) To what extent you have been influenced by an advertisement campaign promoting milk brands. (Give ranking)
$\square$ Strongly Agree-5, $\square$ Agree-4, $\square$ Undecided-3, $\square$ Disagree-2, $\square$ Strongly Disagree-1.
15) Place of purchase

| Point of purchase | Gokul | Warana | Yalgud | Shahu | Chitale | Krishna | Mayur | Sphurti | Morana | Other |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Retail outlets <br> i.e. kirana |  |  |  |  |  |  |  |  |  |  |
| Departmental <br> stores |  |  |  |  |  |  |  |  |  |  |
| Bakeries |  |  |  |  |  |  |  |  |  |  |
| Ice parlors |  |  |  |  |  |  |  |  |  |  |
| Company <br> outlets |  |  |  |  |  |  |  |  |  |  |
| Home <br> delivery |  |  |  |  |  |  |  |  |  |  |

16) Which type of milk do you prefer most?

| Type of milk | Preference |
| :--- | :--- |
| BM (high Fat ) |  |
| Standard Milk |  |
| Tonned milk |  |
| Double Tonned milk |  |

17) Following is the list of milk brands mark 1 against the brand which is most preferred mark 2 against the brand which is preferred second.

| Brand | Rank |
| :--- | :--- |
| Gokul |  |
| Warana |  |
| Yalgud |  |
| Shahu |  |
| Chitale |  |
| Krishna |  |
| Mayur |  |
| Sphurti |  |
| Morana |  |
|  |  |

18) To what extent you are satisfied with the quality of present brand you are using.
$\square$ Highly Satisfied- $5, \square$ Satisfied -4, $\square$ Disdecided-3, $\square$ Disstisfiede-2, $\square$ Highly Dissatisfied-1.
19) Following are the attributes that affect purchase of milk brand .kindly allocate points to these attributes depending upon the importance of the attributes in purchasing the milk brand.(Give Rating)

| Reasons | Extremely <br> Important | Very <br> Important | Strongly <br> Important | Important | Least <br> Important |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Quality |  |  |  |  |  |
| Availability |  |  |  |  |  |
| Taste |  |  |  |  |  |
| Family liking |  |  |  |  |  |
| Influence of friends |  |  |  |  |  |
| Influence of relatives |  |  |  |  |  |
| Satisfaction |  |  |  |  |  |
| Impulsive buying |  |  |  |  |  |
| Planned purchase |  |  |  |  |  |

20) Following are the list of attributes that are reasons for not purchasing a milk brand. Kindly tick the one which are applicable for each brand.

| Reasons | GKL | WRN | YLD | SHH | CHTL | KRN | MYR | SPRT | MRN | OTR |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Lack of <br> awareness |  |  |  |  |  |  |  |  |  |  |
| dislike the <br> product |  |  |  |  |  |  |  |  |  |  |
| high price |  |  |  |  |  |  |  |  |  |  |
| Low quality |  |  |  |  |  |  |  |  |  |  |
| Non- <br> availability |  |  |  |  |  |  |  |  |  |  |
| Health <br> conscious |  |  |  |  |  |  |  |  |  |  |
| Any other |  |  |  |  |  |  |  |  |  |  |

21) How important the following points in purchasing milk brands. (Give rankings)

| Statements | Extremely <br> Important (5) | Very <br> important (4) | Strongly <br> Important (3) | Important <br> (2) | Least Important <br> (1) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Quantity |  |  |  |  |  |
| Brand image |  |  |  |  |  |
| Availability |  |  |  |  |  |
| Price |  |  |  |  |  |
| Taste |  |  |  |  |  |
| Quality |  |  |  |  |  |


| Advertisements |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Packaging <br> design |  |  |  |  |  |
| Friends |  |  |  |  |  |
| Labeling |  |  |  |  |  |
| Offers |  |  |  |  |  |
| Freshness |  |  |  |  |  |
| Retailers <br> influence |  |  |  |  |  |
| Availability of <br> range products |  |  |  |  |  |
| Others ( <br> specify) |  |  |  |  |  |

22) To what extent do you agree that your purchase decision (milk brand) is based upon the above factors? (Give Ranking)

Strongly Agree-5, $\square$ Agree-4, $\square$ Undecided-3, $\square$ Disagree-2, $\square$ Strongly Disagree-1.
23) Have you ever changed your brand in the last 6 months?
$\square$ Yes
No.
If yes, mention the reasons.

| Reason | Milk Brand ( |
| :--- | :--- |
| Price rise |  |
| improper packaging |  |
| lack of availability |  |
| more fat content |  |
| fat control |  |
| poor taste |  |
| Poor quality |  |
| Others (Specify)........ |  |

24) From which source did you know alternate brand?

| Source to know | Milk Brand |
| :--- | :--- |
| Friends |  |
| Doctors |  |
| Advertisement |  |
| Relatives |  |
| Shopkeeper |  |
| Others (specify) |  |

25) What do you do if preferred brand is not available?
(Alternative purchase plans for Milk.)

| Alternative | Tick |
| :--- | :--- |
| Go to other shop |  |
| Buy the other brand |  |
| Place order to get required brand |  |
| Any other (specify) |  |

26) I am satisfied by $\qquad$ brand of milk purchase.
$\square$ Strongly Agree-5, $\square$ Agree-4, $\square$ Neutral-3, $\square$ Disagree-2, $\square$ Strongly Disagree-1 27) I always buy $\qquad$ brand of milk.
$\square$ Strongly Agree-5, $\square$ Agree-4, $\square$ Neutral-3, $\square$ Disagree-2, $\square$ Strongly Disagree-1
27) I recommend $\qquad$ brand of milk to buy others.

Strongly Agree-5, $\square$ Agree-4, $\square$ Neutral-3, $\square$ Disagree-2, $\square$ Strongly Disagree-1
29) Something different to state about the packaged branded milk (in short):

Name:
Signature:
Thank you for your kind cooperation.
Researcher

## APPENDIX II INTERVIEW SCHEDULE (MARATHI)

प्रश्नावली (फक्त शैक्षणिक उपयोगाकरिता)
I) सर्वसाधारण माहिती :

1) नाव
2) पत्ता
3) वय
4) लिंग

पुरुष / स्र्री
5) शिक्षण
6) व्यवसाय
7) मासिक उत्पत्न
8) कुटूंब : एकत्रीत / विभक्त
9) कुटूंबातील एकूण सदस्य :

| कुटूंबातील सदस्य |  |
| :--- | :--- |
| पुरूष संख्या |  |
| स्त्रीया |  |
| मुले |  |
| एकूण |  |

10) खाद्यानावरील मासिक खर्च :

| पदार्थ / वस्तू | एकत्रित खर्च (रु) |
| :--- | :--- |
| कडधान्ये |  |
| डाळी |  |
| तेल / तूप |  |
| फळ/ भाजीपाला |  |
| दूध आणि दुधाचे पदार्थ |  |
| तयार खाद्य पदार्थ |  |
| एकूण |  |

## II) विशेष माहिती

1) तुम्ही कोणत्या कंपनीचे दूध वापरता
2) रोज किती दूध विकत घेता :
3) 200 मिली
4) 500 मिली
5) 500 ते 1000
6) 1000 पेक्षा जास्त
7) कोणत्या आकारामानाचे दूध पाकीट तूम्ही पसंत करता
8) 200 ml
9) 500 ml
10) 1000 ml
11) दूध खरेदीची वारंवारीता

| वारंवारता | मिल्क ब्रँड |
| :--- | :--- |
| 1) रोज एकदा |  |
| 2) रोज दोन वेळा |  |
| 3) जेव्हा गरज असेल तेंक्हा |  |
| 4) कधीतरी |  |
| 5) इतर |  |

5) दूधाच्या पाकीटावरील विशिष्ट कालावधीत वापरण्या योग्य / तारीख (Expiry date) पाहता काय?

6) दूधाच्या पाकीटावरील छापील किंमत (MRP) तपासता का ?

7) दूकानदार छापील किंमती पेक्षा जास्त दराने विकतात असा अनुभव आहे काय ?

होय / नाही
*उत्तर होय असल्यास जास्त दराने विक्री करणे बेकायदा आहे हे आपणास माहित आहे काय ?
होय / नाही
8) गेल्या काही महिन्यात दूधात भेसळ असण्याचा अनुभव आला आहे काय होय / नाही
9) ग्राहक संरक्षणसाठी कायदे आणि ग्राहक न्यायालयाबदल तूम्हास जाणिव आहे काय ?

होय / नाही
*उत्तर होय असल्यास' आपणास काय माहित आहे ?
10) तुम्ही कधी दूधाच्या पाकीटाचे वजन तपासले आहे काय ?

होय / नाही
11) तुमची तक्रार दूकानादार तुमचे समाधान होईल इतपत सोडवितात काय ?

होय / नाही
12) दूधाच्या पूढील विविध कंपन्याबाबत आपणास माहिती आहे काय ?

| कंपनी दूध | होय | नाही |
| :--- | :--- | :--- |
| 1) गोकूळ |  |  |
| 2) वारणा |  |  |
| 3) यळगुड |  |  |
| 4) शाहू |  |  |
| 5)चितळे |  |  |
| 6)क्ष्णा |  |  |
| 7)मयुर |  |  |
| 8)स्फुती |  |  |
| 9)मोरणा |  |  |
| 10) महानंद |  |  |
| 11) इतर |  |  |

13) कंपनीच्या दूधाबाबतची माहिती कोठुन प्राप्त झाली ?

| माहितीचा स्त्रोत | गोकूळ | वारणा | यळगुड | शाहू | चितळे | कृष्णा | मयुर | स्फुती | मोरणा | महानंद | इतर |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1) T.V. (टि.व्ही.) |  |  |  |  |  |  |  |  |  |  |  |
| 2) रेडीयो |  |  |  |  |  |  |  |  |  |  |  |
| 3) वृत्तपत्रे |  |  |  |  |  |  |  |  |  |  |  |
| 4) मित्र मंडळी कडून |  |  |  |  |  |  |  |  |  |  |  |
| 5) नातेवाईकाकडून |  |  |  |  |  |  |  |  |  |  |  |
| 6) किराणा दूकानातून |  |  |  |  |  |  |  |  |  |  |  |
| 7) दूकानात प्रद्शर्शि <br> केल्यामुळे |  |  |  |  |  |  |  |  |  |  |  |
| 8) इतर |  |  |  |  |  |  |  |  |  |  |  |

14) तुमच्यावरती दूध ब्रँड स्थापीत करण्याच्या जाहिरीतीच्या परिणाम खरेदीसाठी प्रवृत्त करण्यावरती होते असे वाटते का .(त्याचे रँकींग करा)
$\square$ पुर्णपणे सहमत $\square$ सहमत $\square$ निर्णय नाही $\square$ असहमत $\square$ पूर्णपणे असहमत
15) दूध कोठून खरेदी करता ?

| दुध खरेदी ठिकाण | गोकूळ | वारणा | यळगुड | शाहू | चितळे | कृष्णा | मयुर | स्फुती | मोरणा | महानंद | इतर |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1) किराणा दूकानातून |  |  |  |  |  |  |  |  |  |  |  |
| 2) शॉपींग मॉल मधून |  |  |  |  |  |  |  |  |  |  |  |
| 3) बेकरीतून |  |  |  |  |  |  |  |  |  |  |  |
| 4) थंड पेयाच्या दूकानातून |  |  |  |  |  |  |  |  |  |  |  |
| 5) घरपोच सेवा |  |  |  |  |  |  |  |  |  |  |  |

16) कोणत्या प्रकारचे दूध तूम्ही पसंत करता ?

| 1) म्हशीचे जास्त स्निग्धांशाचे |  |
| :--- | :--- |
| 2) प्रमाणीत दूध |  |
| 3) टोनड दूध |  |
| 4) डबल टोनड दूध |  |

17) खाली दिलेल्या ब्रँडपैकी आपला प्रथम पसंतीच्या समोर 1 (एक) लिहा व दुसन्या प्राधान्यास (दोन) 2 लिहा

| कंपनी दूध | रैक/ क्रम |
| :--- | :--- |
| 1) गोकूळ |  |
| 2) वारणा |  |
| 3) यळगुड |  |
| 4) शाहू |  |
| 5)चितळे |  |
| 6)कृष्णा |  |
| 7)मयुर |  |
| 8)स्फुती |  |
| 9)मोरणा |  |
| 10) महानंद |  |
| 11) इतर |  |

18) सद्या वापरत असलेल्या मिल्क ब्रँडच्या (क्वालिटी) विषयी तुम्ही कितपत संतुष्ट आहात ?
$\square$ संपूर्ण समाधानी $\square$ समाधानी $\square$ निर्णय नाही $\square$ असमाधानी $\square$ संपूर्ण असमाधानी
19) खाली दिलेल्या मिल्क ब्रँड खरेदीच्या अट्रीबट्स ना त्याच्या महत्वानुसार (क्रम) चे गुण द्या.

| कारणे | तिव्र महत्वाचे | अति महत्वाचे | अगदी महत्वाचे | महत्वाचे | कमी महत्वाचे |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1) दर्जा (क्वालिटी) |  |  |  |  |  |
| 2) उपलब्धता |  |  |  |  |  |
| 3) चव |  |  |  |  |  |
| 4) कुटूंबाची आवड |  |  |  |  |  |
| 5) मित्रांच्य सांगण्यावरुन |  |  |  |  |  |
| 6) नातेवाईकांच्या सांगण्यावरुन |  |  |  |  |  |
| 7) समाधान वाटते |  |  |  |  |  |
| 8) प्रबळ इच्छा |  |  |  |  |  |
| 9) जाणिवपूर्वक ठरविल्यामुळे |  |  |  |  |  |
| 10) इतर |  |  |  |  |  |

20) विविध मिल्क ब्रँड खरेदी न करण्याची कारणे खालील प्रमाणे आहेत योग्य कारणास खुण करा :

| 1) माहिती नसते | गोकूळ | वारणा | यळगुड | शाहू | चितळे | कृष्णा | मयुर | स्फुती | मोरणा | महानंद | इतर |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2) आवडत नाही |  |  |  |  |  |  |  |  |  |  |  |
| 3) जास्त किमत <br> असल्यामुळे |  |  |  |  |  |  |  |  |  |  |  |
| 4) कमी गुणवत्ता <br> असल्यामुळे |  |  |  |  |  |  |  |  |  |  |  |
| 5) उपलब्ध नसल्यामुले |  |  |  |  |  |  |  |  |  |  |  |
| 6) आरोग्याबाबत सावध <br> असल्यामुळे |  |  |  |  |  |  |  |  |  |  |  |
| 7) इतर |  |  |  |  |  |  |  |  |  |  |  |

21) विशिष्ट ब्रंडचे दूध खरेदीची कोणती कारणे आहेत

| कारणे | तिव्र महत्वाचे | अति महत्वाचे | अगदी महत्वाचे | महत्वाचे | कमी महत्वाचे |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1) चव |  |  |  |  |  |
| 2) गुणवत्ता |  |  |  |  |  |
| 3) माप |  |  |  |  |  |
| 4) कंपनीची छाप |  |  |  |  |  |


| 5) उपलब्धता |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 6) किंमत |  |  |  |  |  |
| 7) स्निग्धांश |  |  |  |  |  |
| 8) नियंत्रीत स्निग्धांश |  |  |  |  |  |
| 9) जाहिरात |  |  |  |  |  |
| 10) पूकींगचे <br> डिझाईन |  |  |  |  |  |
| 11) मित्रमंडळी मुळे |  |  |  |  |  |
| 12) केबल |  |  |  |  |  |
| 13) विशेष सूट |  |  |  |  |  |
| 14) ताजेपणा |  |  |  |  |  |
| 15) दूकानदाराचा प्रभाव |  |  |  |  |  |
| 16) विविध आकरामानातील <br> उपलब्धता |  |  |  |  |  |
| 17) इतर |  |  |  |  |  |

22) किती प्रमाणात तुम्ही सहमत आहात की मिल्क ब्रँडचा खरेदी निर्णय हा वरील घटकांवर आधारित आहे.
(क्रम दया)
$\square$ तिव्र सहमत $\square$ सहमत $\square$ निर्णय नाही $\square$ असहमत $\square$ तिव्र असहमत
23) तुम्ही दूध खरेदीचा बँड मागील सहा महिन्यांमध्ये कधी बदलला आहे काय ?


उत्तर होय असल्यास कारणे

| कारणे | मिल्क ब्रँड |
| :--- | :--- |
| 1) किंमत वाढ |  |
| 2) पँकींग बरोबर नसल्यामुळे |  |
| 3) उपलब्धता नसल्यामुळे |  |
| 4) स्निग्धांश जास्त असल्यामुळे |  |
| 5) स्निग्धांश नियंत्रीत असल्यामुले |  |
| 6) चांगली चव नसल्यामुले |  |
| 7) चांगली गुणवत्ता नसल्यामुळे |  |
| 8) इतर |  |

24) पर्यायी ब्रँड दूधाची माहिती कोठुन प्राप्त झाली ?

| माहितीचा स्त्रोत | मिल्क ब्रेंड |
| :--- | :--- |
| 1) मित्र मंडळी कडून |  |
| 2) डॉक्टराकडून |  |
| 3) जाहिरातीतून |  |
| 4) नातेवाईकांकडून |  |
| 5) दूकानादाराकडून |  |
| 6) इतर कोणाकडून ? (लिहा)......... |  |

25) तुमच्या पसंतीचे ब्रँड दूध उपलब्ध नाही झाल्यास तुम्ही काय करता

| पर्याय | पर्यायी निवड |
| :--- | :--- |
| 1) दुसन्या दुकानात जाता |  |
| 2) दूध खरेदी नंतर करता |  |
| 3) इतर ब्रॅडचे दूध घेता |  |
| 4) पाहिजे असलेल्या ब्रँड दूधाची ऑर्डर नोंदविता |  |
| 5) इतर |  |

26) मी $\qquad$ मिक्ल ब्रँड खरेदीमुळे समाधानी आहे.
27) प्रखर सम्मत आ
28) सम्मत आहे
29) तटस्थ
30) सहमत नाही
31) प्रखर सहमत नाही
32) मी नेहमी $\qquad$ मिक्ल ब्रंडच खरेदी करतो.
33) प्रखर सम्मत आहे
34) सम्मत आहे
35) तटस्थ
36) सहमत नाही
37) प्रखर सहमत नाही
38) मी $\qquad$ मिक्ल ब्रँड दुसन्यांना वापरण्याची शिफारस करतो.
39) प्रखर सम्मत आहे
40) सम्मत आहे
41) तटस्थ 4) सहमत नाही
42) प्रखर सहमत नाही
43) ब्रँड दूध पाकीटातून तुम्हास आणखी वेगळे काही सांगावयाचे आहे काय ? (थोडक्यात लिहा)

## ANNEXURE III

## LOCATION OF THE STUDY AREA KOLHAPUR CITY


(Source: http://www.mapsofindia.com/maps/maharashtra/kolhapur-city-map.jpg)


[^0]:    (Source: Primary Data)

