## PRESENTATION ON

## MILK

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## OBJECTIVES

- To analyse the consumer brand preferences of milk.
- To evaluate consumers attitude towards the usage of milk.
- To evaluate consumers perception about the important factors pertaining to milk purchase decision.


## HYPOTHESES

- Sales of different milk are uniformly distributed that is there is no significant difference in the sales of different chocolate brands .
- Male and Female consumer are uniformly distributed on their liking towards warm and normal milk .
- Male and Female consumers are uniformly distributed on their liking towards sweet and natural milk .
- Consumers of different age group are uniformly distributed on their liking towards warm and normal milk.
- Male and female are uniformly distributed on their liking about how they should purchase milk.
- There is no significant difference among the consumers of milk on the factors like age, gender etc towards their attitude about the consumption of milk .
- Different factors which are important in the purchase decision of milk for consumers do not differ significantly.


## HYPOTHESIS 1

BRAND COUNT
AMUL 30
PARAG 11
MOTHER 13
DAIRY
LOCAL
VENDOR
OTHER
8

- Chi Square value [calculated] =34.9
- Critical Chi Square value [0.05,5] =11.07
- Chi Square value [calculated] is greater than critical chi square value , hence hypothesis 1is rejected and it can be concluded that sales of different brand of milk are not uniformly distributed.


## HYPOTHESIS 2

Male and female consumers are uniformly distributed on their liking towards warm and normal milk

To test hypothesis . Chi square was applied

## HOT

Male
Female
COLD
17
14

- Chi Square value [calculated] =. 84
- Critical Chi Square value [0.05, 1] $=3.84$
- Chi Square value calculated is greater than critical chi square value, hence hypothesis 1 is rejected and it can be conducted that sales of different brand of milk are not uniformly distributed.


## HYPOTHESIS 3

Male and Female consumers are uniformly distributed on their liking towards sweet and natural milk

- To test hypothesis, chi square test was applied
- $\quad$ SUGAR NATURAL

Male
34
36

14
16

- Chi Square value [calculated] =. 03
- Critical Chi Square value [0.05, 1] = 3.84
- Chi Square value calculated is less than the critical chi square value ,hence hypothesis is accepted and it can be concluded that male and female consumers are uniformly distributed on their liking towards sweet and natural milk .


## HYPOTHESIS 4

Consumers of different age group are uniformly distributed on their liking toward sweet and natural milk

- To test hypothesis chi square test was applied.
- SUGAR NATURAL

| Under | 43 | 25 |
| :--- | :---: | :---: |
| 18 |  |  |
| $26-35$ | 15 | 4 |
| $36-45$ | 9 | 1 |
| $46-55$ | 3 | 0 |

- Chi Square value [calculated] $=5.39$
- Critical Chi Square value $[0.05,3]=7.81$
- Chi Square value calculated is less than critical chi square value, hence hypothesis is accepted and it can be concluded that consumers of different age groups are uniformly distributed on their liking towards sweet and natural milk.


## HYPOTHESIS 5

Male and female consumers are uniformly distributed on their liking about how they should purchase milk

- Chi Square value [calculated]= . 41
- To test hypothesis, chi square is applied.
- Yougo Vendor come
- out to buy to deliver

Male 28
Female 27 20
25

- Critical CHI Square value $[0.05,1]$ $=3.84$
- Chi Square value calculated is less than critical chi square value, hence hypothesis is accepted and it can be concluded that male and female consumers are uniformly distributed on their thinking about how they should purchase milk.


## HYPOTHESIS 6 [a]

There is no significant difference among the consumers of different age groups about their liking towards the consumption of milk.
To test this ANNOVA test was applied with following results.
ANNOVA SINGLE FACTOR
SUMMARY

| $\quad$ GROUP | COUNT | SUM | AVERAGE | VARIANCE |
| :--- | :---: | :---: | :---: | :---: |
| Under18-25 | 68 | 2070 | 30.44118 | 15.08604 |
| $26-35$ | 19 | 594 | 31.26316 | 6.315789 |
| More than 35 | 13 | 409 | 31.46154 | 9.269231 |

## ANNOVA

| Source of <br> crit | df | ms | f | p value |
| :--- | :---: | :---: | :---: | :--- |
| Variation |  |  |  |  |
| Between group | 18.03031 | 2 | 9.015157 | 0.707684 |
| 3.090187 |  |  |  |  |
| Within groups | 1235.68 | 97 | 12.73897 |  |
| Total | 1253.71 | 99 |  |  |

Since $F$ calculated is less than $F$ critical at 95 significant level hence null hypothesis is accepted. So it can be concluded that consumers of different age group do not differ significantly on their attitude towards consumption of milk.

## HYPOTHESIS 6 [B]

There is no significant difference among the male and female consumers on their liking toward the consumption of milk.
O test hypothesis $Z$ test was applied with following results.
MEAN N Z VALUE Z value critical SIGNIFICANT

AT 0.5 AND 125 df

| MALE | 30.03 | 48 | -1.79 | 1.95 | insignificant <br> accept the null <br> hypothesis |
| :--- | ---: | ---: | ---: | ---: | ---: |

Since the calculated $z$ value is less than $z$ critical [two tailed test] at. 05 significance level, hence null hypothesis is accepted and it can be said that there is no significant difference in the attitude of male and female consumers on their liking towards consumption of milk.

## HYPOTHESIS 6 [C]

There is no significant difference among married and unmarried consumers on their liking towards the consumption of milk.
To test this hypothesis $z$ test was applied

| mean | $n$ | z value | z value critical | result |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| MARRIED | 31.12 | 33 | .83 | 1.95 | insignificant |
| UNMARRIED 30.53 | 67 |  |  | accept the |  |

Since the calculated $Z$ value is less than $Z$ critical [two tailed] at . 05 significance level ,hence null hypothesis is accepted and it can be said that there is no significant difference in the attitude of married and unmarried consumers on their liking for milk.

## HYPOTHESIS 6 [D]

There is no significant difference among the consumer of different income groups about their liking toward consumption of milk.

To test this analysis ANNOVA test was applied ANNOVA ;SINGLE FACTOR

| GROUPS | COUNT | SUM | AVERAGE | VARIANCE |
| :--- | :---: | :---: | :---: | :---: |
| Below 20000 | 24 | 739 | 30.79167 | 12.25906 |
| 20000-40000 | 41 | 1282 | 31.26829 | 11.75122 |
| 40000-60000 | 13 | 411 | 31.61538 | 18.25641 |
| Above 60000 | 22 | 641 | 29.13636 | 9.742424 |

## ANNOVA

| Source of | SS | DF | MS | F | P VALUE | F CRIT |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| VARIATION |  |  |  |  |  |  |
| Between group | 78.03505 | 3 | 26.01168 | 2.12399 | .10222 | 2.699393 |
| Within groups | 1175.675 | 96 | 12.24661 |  |  |  |
|  |  |  |  |  |  |  |
| TOTAL | 1253.71 | 99 |  |  |  |  |

Since F value calculated is less than F critical at 95 significance level, hence null hypothesis is accepted.

So it can be concluded that consumers of the different income group do not differ significantly on their attitude towards consumption of milk.

## HYPOTHESIS 7

- Different factors which are important in the purchase decision of milk for consumers do differ significantly.
To test this ANNOVA test was applied
ANNOVA ;SINGLE FACTOR

| GROUPS | COUNT | SUM | AVERAGE | VARIANCE |
| :--- | :--- | :--- | :--- | ---: |
| PRICE | 97 | 277 | 2.85567 | 1.853952 |
| BELIEVE ON | 97 | 349 | 3.597938 | 1.534579 |

PURITY

| AVAILABILITY | 97 | 205 | 2.113402 | 0.705756 |
| :--- | :--- | :--- | ---: | :--- |
| CONVENIENCE | 97 | 139 | 1.43299 | 0.914734 |

## ANNOVA

Source of SS Df ms f P VALUE F CRIT
Variation

| Between group | 254.134 | 3 | 84.71134 | 67.64703 | $3.87 \mathrm{E}-35$ | 2.62814 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

$\begin{array}{llll}\text { Within group } & 480.866 & 384 & 1.252255\end{array}$
TOTAL 735387
Since F calculated is greater than F Critical at 95 significance level ,hence null hypothesis is rejected.
So ,it can be concluded that different factors hold different importance in the milk purchase decision.

## POPULAR BRAND

## POPULARITY

$■$ AMUL ■ parag ■MOTHER DAIRY ■ LOCAL VENDOR ■ OTHER


## MILK VARIETY PREFERED

## PREFERENCE

■ COW PRODUCED 36 ■ BUFFALO PRODUCED 41 - PACKAGED MILK 23 ■


## BUYING DECISIONS

BUYING DECISION
$\square$ YOU GO TO BUY ■ VENDOR COMES ■ 3rd Qtr


## TIME WHEN YOU PROCURE MILK

TIME
$■$ MORNING TIME ■ EVENING TIME $\quad$ ANY TIME


## FAMILY CONSUMPTION OF MILK PER DAY



## PREFER MILK OR NOT

PREFER OR NOT
■YES ■NO ■ ■
0\%
4\%

## MILK PREFERED IN A DAY

## CHOICE

$■ 1$ GLASS ADAY $\quad 2$ GLASSES A DAY $\quad$ MORE THAN 2 GLASSES ■ ■


## RANKING PERFORMANCE



■ CADBURY ■ NESTLE
$\square$ AMUL

## CONSUMER PROFILE

## CONSUMERS

■ UNDER 18-25 ■ 26-35 ■ 36-45 ■ 46-55
3\%

## GENDER

## GENDER

■ MALE $\quad$ FEMALE
0\%

## MONTHLY FAMILY INCOME

FAMILY INCOME<br>$\square$ 1st Qtr $\quad$ 20000-40000 $\square 40000-60000 \square$ ABOVE 60000



## EDUCATIONAL QUALIFICATION

## QUALIFICATION




## OCCUPATION



