PRESENTATION ON CHIPS

HYPOTHESES ANALYSIS

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OBJECTIVES

1. To analyze the consumers brand preferences for CHIPS
2. To evaluate consumers attitude towards the consumption of CHIPS
3. To evaluate consumers perception about the important factors pertaining to CHIPS purchase decision

HYPOTHESES

- Sales of different brands of chips are uniformly distributed i.e. there is no significant difference in the sales of different chips brands.

- There is no significant difference among the consumers of chips on the factors like age, gender, etc. towards their attitude about the consumption of chips.

- Male and Female consumers are uniform in their taste about the different flavor of chips.

- Consumers are uniformly distributed on their consumption pattern of chips.

- Different factors which are important in the purchase decision of chips for consumers do not differ significantly.

- Different side effects which are perceived by the chips consumers do not differ significantly.

HYPOTHESIS 1

To test Hypothesis 1 , Chi Square test was applied.

BRAND	COUNT
Haldiram's	10
Bingo	17
Uncle Chips	06
Lays	60
TOTAL	93

Chi Square value (calculated) = 80.11

Critical Chi Square value (0.05,3) = 7.8147

Chi Square value (calculated) is greater than Critical Chi Square value, hence hypothesis 1 is rejected and it can be concluded that sales of different brand of chips are not uniformly distributed.

HYPOTHESIS 2

Hypothesis 2(a): consumers of the age group 18-25 and 26-35 do not differ significantly on their attitude towards consumption of chips.

To test this Hypothesis Z-test was applied with the following results

	Mean	**n**	**Z -value**	**Z – value critical at 0.5 and 125 df**	**Result**
Age 18-25	41.37143	70	0.063	1.95	Insignificant Accept the null hypothesis
Age 26-35	41	20			

Since the calculated Z value is less than Z critical (two –tailed) at 0.5 significance level , hence null hypothesis is accepted and it can be said that there is no significant difference in the attitude of consumers of the age group 18-25 and 26-35 on their attitude towards consumption of chips.

Hypothesis 2(b): Male and Female consumers do not differ significantly in their attitude towards chips

To test this hypothesis Z-test was applied with following results

	Mean	**n**	**Z value**	**Z value critical at 0.05 and 125 dof**	**Result**
Male	41.59	54	0.8266	1.95	insignificant
Female	40.93	46			Accept the null hypothesis

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 significance difference in the attitude of Male and Female consumers on their attitude towards consumption of chips.

HYPOTHESIS 3. Male and Female consumers are uniformly distributed on their taste about the different flavor of chips.

To test the hypothesis, Chi Square test was applied

	Spanish Tomato	Magic Masala	Hot n Sweet	American Cheese	Plain Salted	Don't know	TOTAL
Male	10	14	06	18	04	02	54
Female	08	15	02	15	04	01	45
TOTAL	18	29	08	33	08	03	99

Chi Square value(calculated) = 2.06

Critical Chi Square value(0.05,5) = 11.0705

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 taste about the different flavor of chips

HYPOTHESIS 4. Consumers are uniformly distributed on their consumption pattern for the chips

To test this hypothesis, Chi Square test was applied

	Very Often	Often	Sometime	Rarely	Never	TOTAL
Male	13	12	13	13	3	54
Female	8	12	13	11	2	46
TOTAL	21	24	26	24	5	100

Chi square value (calculated) =0.92305

Critical chi square value(0.05,4) =9.4877

Chi square value(calculated) is less than critical chi square value , hence this hypotheses is accepted and it can be concluded that consumers are uniformly distributed on their consumption pattern for chips.

HYPOTHESIS 5- Different factors which are important in the purchase decision of chips for consumers do not differ significantly among consumers

To test this hypothesis ANOVA was applied with the following results

ANOVA: Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
Price	100	400	4	1.393939
Flavor	100	437	4.37	0.619293
Brand Image	100	397	3.97	1.019293
Size of bag	100	370	3.7	1.20202
Color of chips	100	333	3.33	1.576869
Texture of chips	100	302	3.02	1.575354
Ingredients on the back of bag	100	340	3.4	1.69697
Past experience	100	371	3.71	1.399899

ANOVA

Source of variation	SS	df	MS	F	P-value	F crit
Between Groups	129.995	7	18.57071	14.1712	2.09E-17	2.021123
Within Groups	1037.88	792	1.310455			
TOTAL	1167.87	799				

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 for the consumers.

HYPOTHESIS 6- Different side effects which are perceived by the chips consumers due to the excessive consumption of chips do not differ significantly.

To test this hypothesis, ANOVA was applied with the following results

ANOVA : Single factor

SUMMARY

Groups	Count	Sum	Average	Variance
Food preservatives	100	419	4.19	1.367576
Artificial coloring	100	417	4.17	1.112222
Fat facts	100	361	3.61	2.300909
Pimples	100	372	3.72	2.062222
Health	100	427	4.27	1.08798
Wastage of money	100	354	3.54	2.069091

ANOVA

Source of variation	SS	df	MS	F	P-value	F crit
Between groups	53.83333	5	10.76667	6.46	7.36E-06	2.229193
Within groups	990	594	1.666667			
TOTAL	1043.833	599				

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 of side effects hold different importance for the consumers.

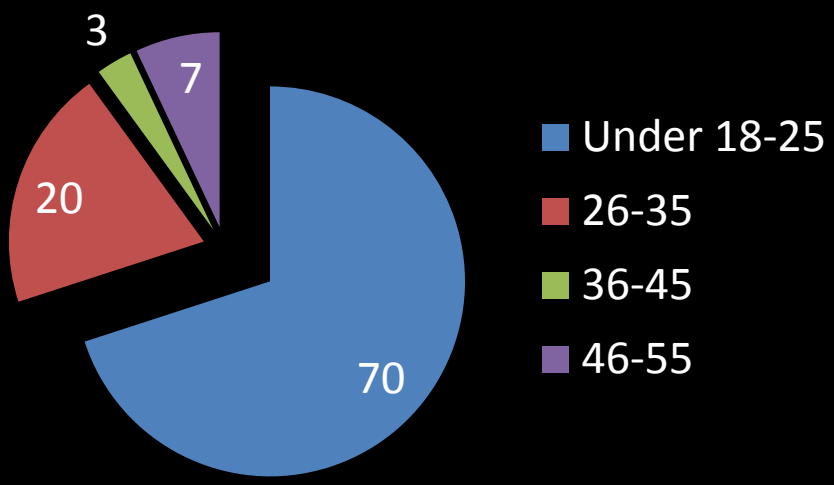
DESCRIPTIVE STATISTICS ANALYSIS

- Most popular brand: Lays

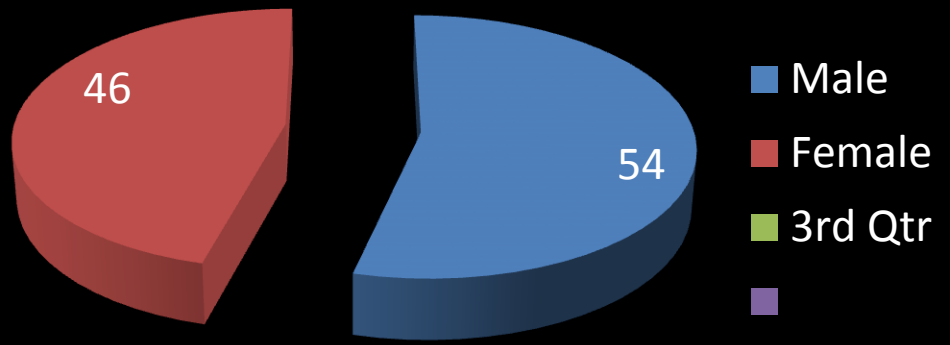
Brand	Count
Haldiram’s	10
Bingo	17
Uncle Chips	06
Lays	60
TOTAL	93

CONSUMER PROFILES

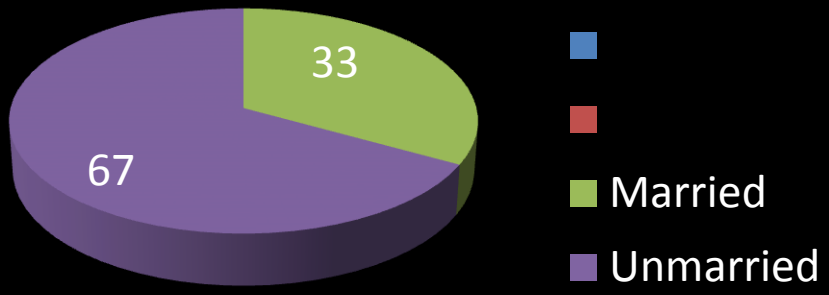
Age profile



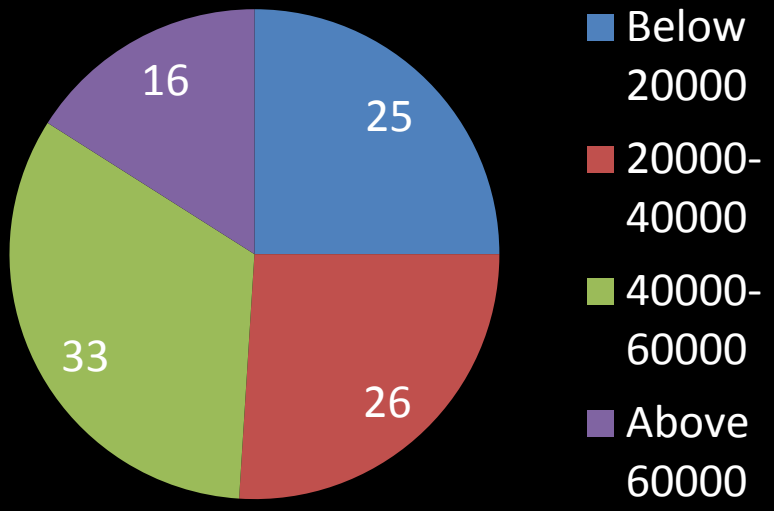
Gender



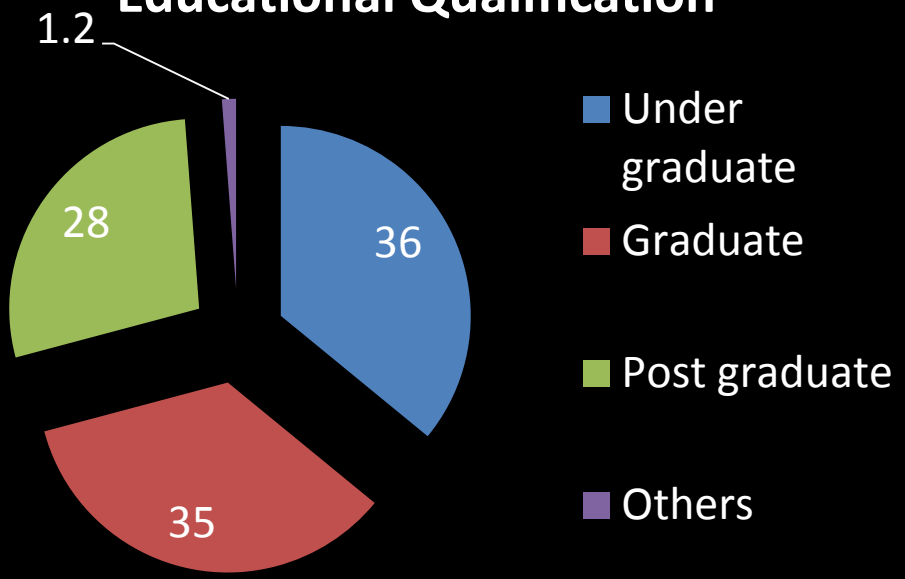
Marital Status



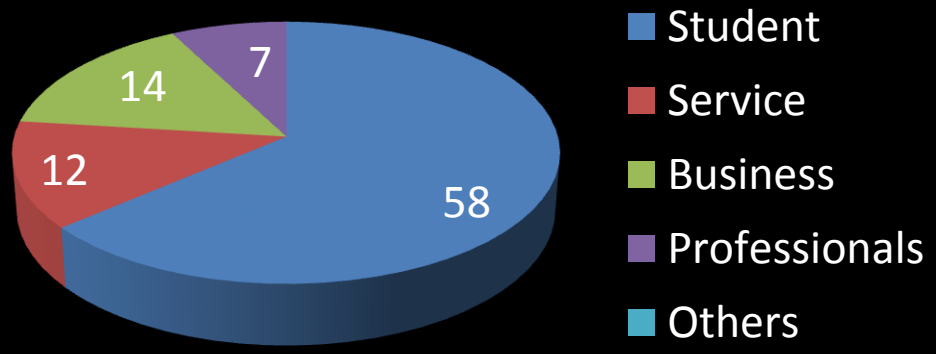
Monthly Family Income



Educational Qualification



Occupation



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