Indian Consumer's behavior towards Online Shopping

Presented by:
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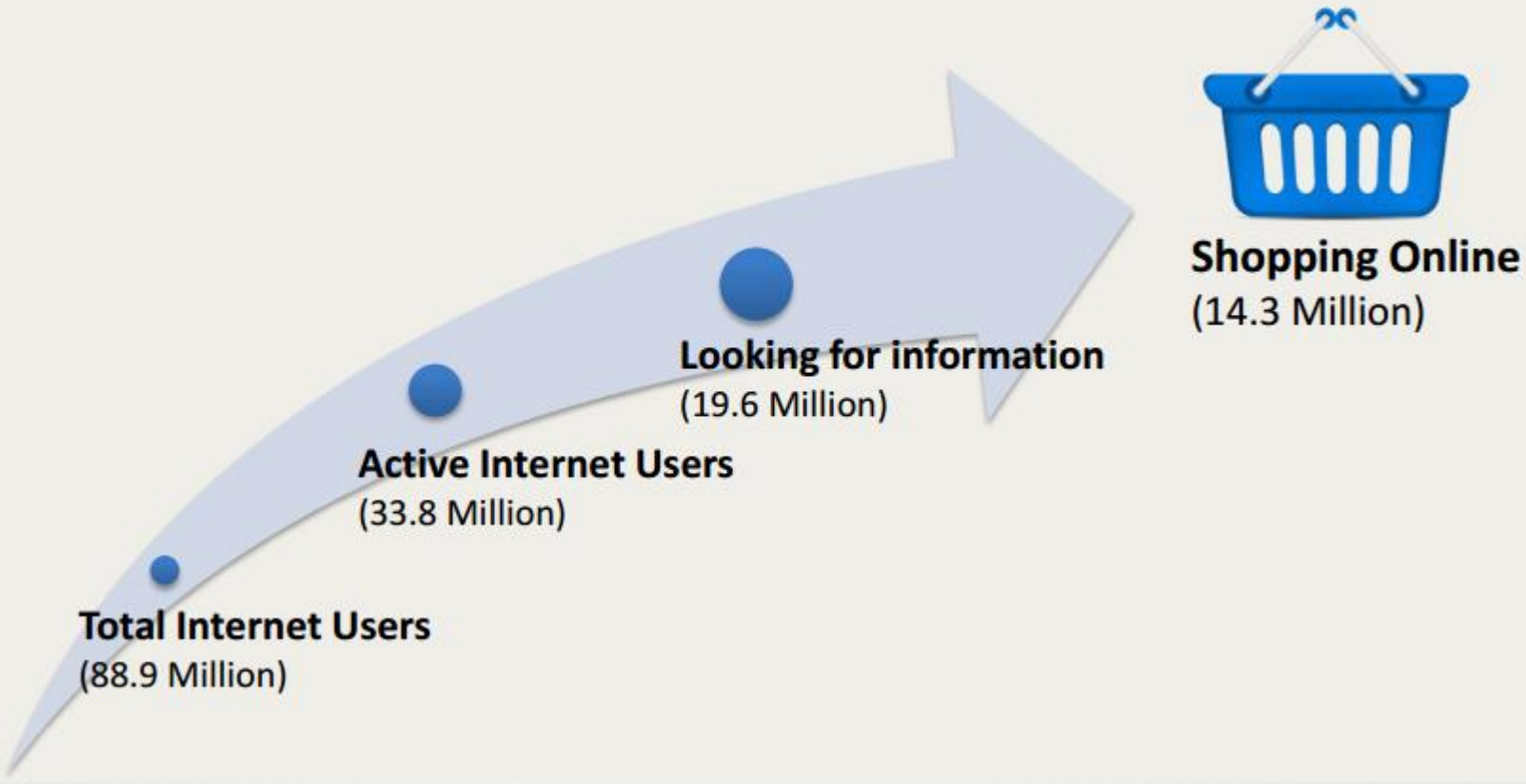
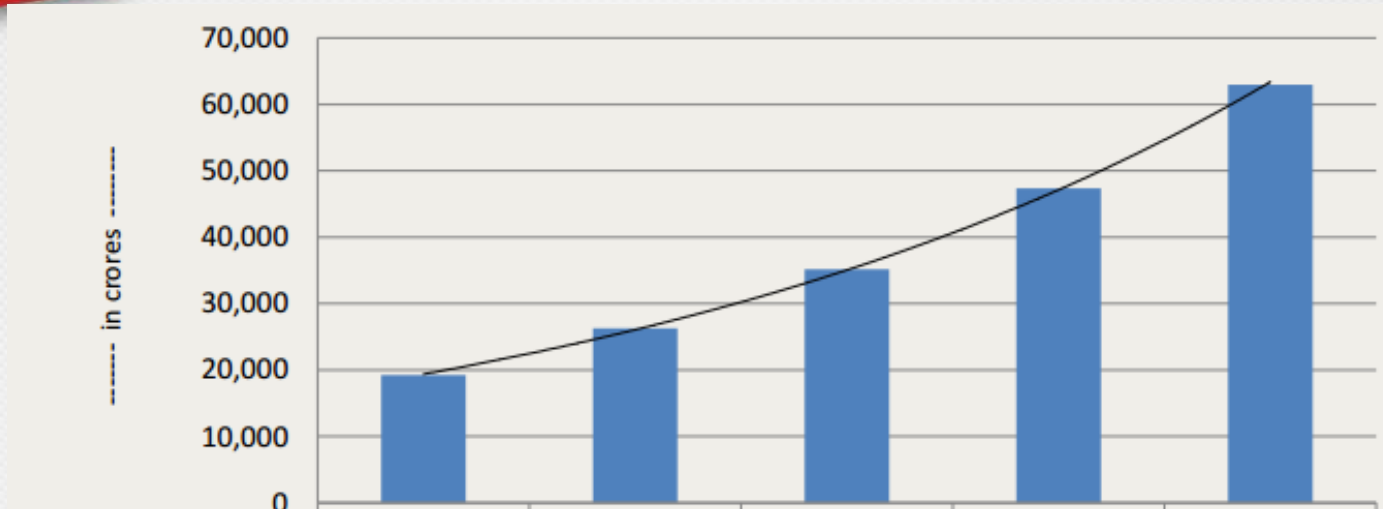
Internet Penetration in India



*2013 figures

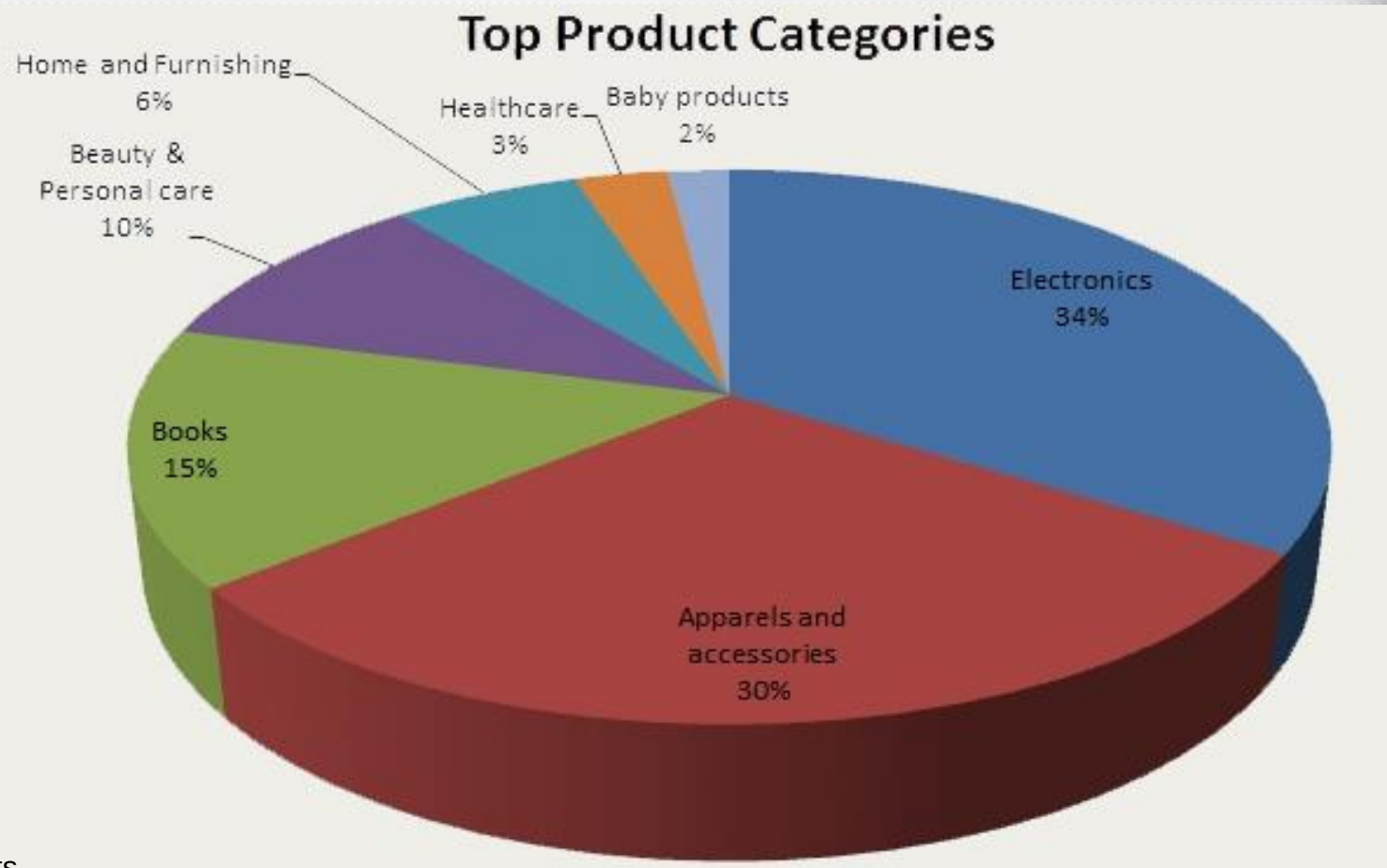
E-commerce growth over the years



	Dec-09	Dec-10	Dec-11	Dec-12	Dec-13 (Est.)
Total Industry Size	**19,249**	**26,263**	**35,143**	**47,348**	**62,967**
Online Travelling	14,953	20,440	26,572	34,544	44,907
e-Tailing	1,550	2,372	3,842	6,454	10,004
Financial Services	1,540	1,848	2,255	2,886	3,607
Classifieds	775	1,085	1,682	2,354	3,061
Other Segments	431	518	792	1,110	1,388

src: blog.digitalinsights.in

Top product Categories



src: Google India Study reports

Top states, cities for online shopping in India

Top States

1. NCR
2. Maharashtra
3. Uttar Pradesh
4. Haryana
5. Gujarat
6. AP
7. Tamil Nadu
8. Karnataka
9. Punjab
10. Rajasthan

Mature Cities

1. Delhi-NCR
2. Bangalore
3. Chennai
4. Hyderabad
5. Mumbai
6. Pune
7. Ahmedabad
8. Jaipur
9. Kolkata
10. Lucknow

Destinations with growth prospects

1. Patiala
2. Bhatinda
3. Faizabad
4. Panipat
5. Dehradun
6. Guwahati
7. Rajkot
8. Kota
9. Ernakulam

src: Google India Study reports

Research Objectives

- To know which age group shops online the most.
- How much a person spends monthly on online shopping.
- To know the factors why a person shops online.
- To know why a person refrains himself from shopping online.

Research methodology

- Primary data collected through a web based questionnaire.
  - Sample size: 102 respondents
  - Sampling technique: Convenience Sampling
- Secondary data collected through online journals.

Data Analysis

- Following techniques were used for Data Analysis.
  - Pie charts
  - Bar graphs
  - ANOVA
  - Factor Analysis
  - Regression Analysis

Data Analysis – Linear regression analysis

- To derive a relationship between the income level (independent variable) and monthly spending (dependent variable), linear regression analysis in SPSS was used.
- The output is as follows:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.279[a]	.078	.068	1.358

a. Predictors: (Constant), Income

- The R value is .279 which shows a positive but a low degree of correlation between income level and monthly spending.
- The R^2 indicates how much the dependent variable can be explained by the independent variable. This value is too small (7.8%).

Data Analysis – Linear regression analysis

- By looking at the B column under the Un-standardized Coefficients column, we can present the regression equation as:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.992	.324		6.155	.000
	Income	.380	.134	.279	2.846	.005

a. Dependent Variable: Monthly_spending

Monthly_spending = 2 + 0.38(Income)

- **Interpretation:** The value of R^2 is quite low and so it can be said that the regression model does not fit into the data very well. Also, the sum of squares of regression is lesser than the sum of squares of residuals and this reiterates the findings of R^2.

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.946	1	14.946	8.102	.005[a]
	Residual	177.105	96	1.845		
	Total	192.051	97			

a. Predictors: (Constant), Income

b. Dependent Variable: Monthly_spending

Data Analysis – Factor Analysis

Descriptive Statistics

	N	Mean	Std. Deviation
I_can_shop_in_privacy_of_home	98	3.48	1.379
I_do_not_have_to_leave_home_for_shopping	98	4.38	1.031
I_can_shop_whenever_I_want	97	4.55	.878
I_can_then_save_myself_from_chaos_of_traffic_market_crowd	98	4.47	.933
I_can_get_user_expert_comments_online	98	4.03	1.079
There_is_no_embarrassment_if_I_do_not_buy	98	3.31	1.365
I_can_take_as_much_time_I_want_to_decide	98	4.08	1.172
Wide_variety_of_products	98	4.44	.838
Description_of_products_is_accurate	98	3.77	1.063
It_reduces_the_monetary_costs_of_traditional_shopping	98	3.95	1.179
Can_compare_products_instantly_with_few_clicks	96	4.49	.795
I_get_discount_offers	98	4.40	.905
Valid N (listwise)	95		

Looking at the means, we can see that the following factors are most important for customers shopping online:

- I can shop whenever I want (mean=4.55)
- Can compare products instantly with few clicks (mean=4.49)
- I can save myself from the chaos of traffic and market crowd (mean=4.47)
- Wide variety of products (mean=4.44)

Data Analysis – Factor Analysis

Kaiser-Meyer-Olkin (KMO) and Bartlett's Test : measures strength of the relationship among variables

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.813
Bartlett's Test of Sphericity	Approx. Chi-Square	533.449
	df	66
	Sig.	.000

- The KMO measures the sampling adequacy which should be greater than 0.5 for a satisfactory factor analysis to proceed. Looking at the table above, the KMO measure is 0.813.

Data Analysis – Factor Analysis

Total Variance Explained

- The next item shows all the factors extractable from the analysis. Notice that the first factor accounts for 44.288% of the variance, the second 11.551% and the third 10.028%. All the remaining factors are not significant

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.315	44.288	44.288	5.315	44.288	44.288	2.911	24.258	24.258
2	1.386	11.551	55.839	1.386	11.551	55.839	2.801	23.339	47.597
3	1.203	10.028	65.866	1.203	10.028	65.866	2.192	18.269	65.866
4	.914	7.614	73.480						
5	.639	5.322	78.802						
6	.572	4.765	83.567						
7	.526	4.387	87.954						
8	.437	3.640	91.594						
9	.325	2.707	94.301						
10	.265	2.211	96.512						
11	.237	1.975	98.487						
12	.182	1.513	100.000						

Extraction Method: Principal Component Analysis.

Data Analysis – Factor Analysis

Rotated Component (Factor) Matrix

- The idea of rotation is to reduce the number factors on which the variables under investigation have high loadings.

Rotated Component Matrix[a]

	Component		
	1	2	3
I_can_shop_in_privacy_of_home			
I_do_not_have_to_leave_home_for_shopping		.809	
I_can_shop_whenever_I_want		.782	
I_can_then_save_myself_from_chaos_of_traffic_market_crowd		.829	
I_can_get_user_expert_comments_online			
There_is_no_embarrassment_if_I_do_not_buy			.864
I_can_take_as_much_time_I_want_to_decide			.810
Wide_variety_of_products	.635		
Description_of_products_is_accurate	.742		
It_reduces_the_monetary_costs_of_traditional_shopping	.644		
Can_compare_products_instantly_with_few_clicks	.781		
I_get_discount_offers	.782		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Data Analysis – Factor Analysis

- From the above analysis, the final findings are as follows:

Component 1 (cost and variety)	Wide variety of products Description of products is accurate It reduces the monetary costs of traditional shopping Can compare products instantly with few clicks I get discount offers
Component 2 (home convenience)	I do not have to leave home for shopping I can shop whenever I want I can then save myself from chaos of traffic and market crowd
Component 3 (societal pressure)	There is no embarrassment if I do not buy I can take as much time I want to decide

Data Analysis - ANOVA

- **Null hypothesis**: At 95% confidence interval for the population taken, income does not have any impact on the frequency of purchase of online products and services.

- **Alternate Hypothesis**: At 95% confidence interval for the population taken, income has an impact on the frequency of purchase of online products and services.

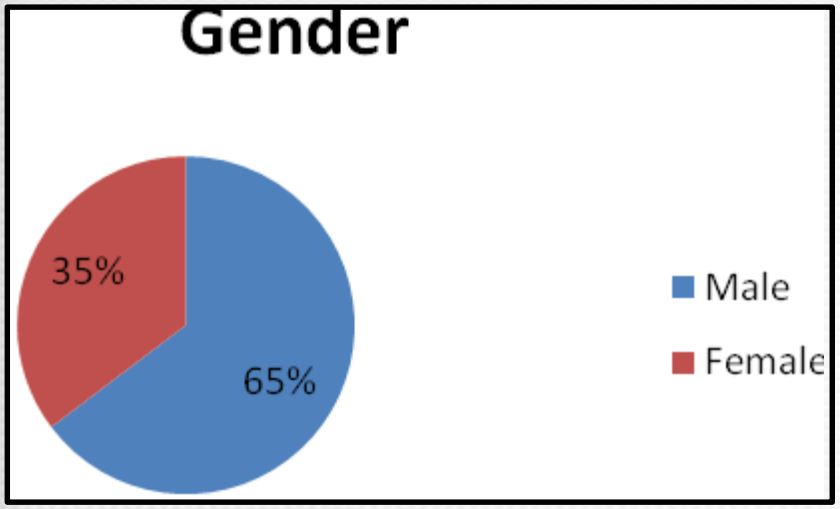
ANOVA

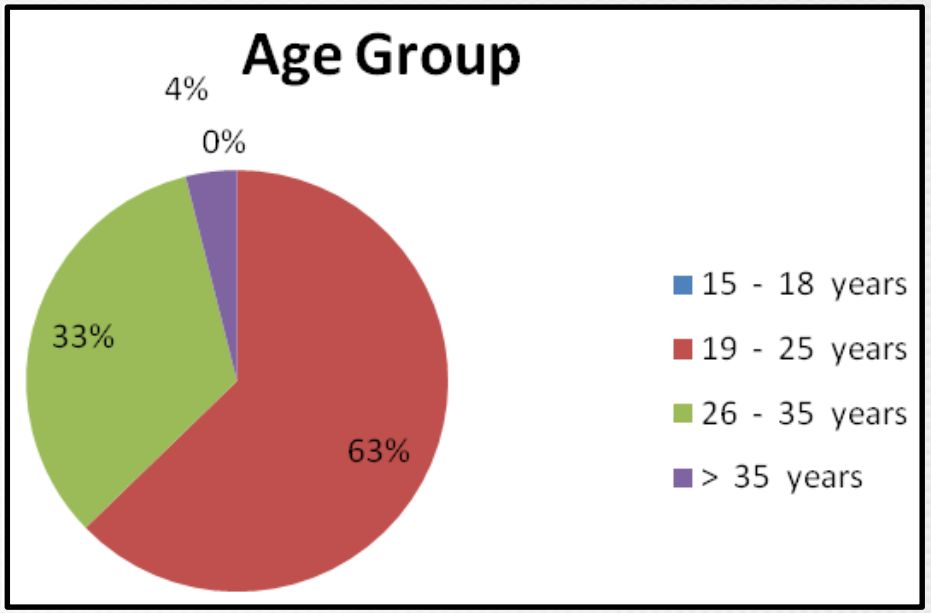
Frequency of shopping

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.555	3	1.185	2.106	.105
Within Groups	52.904	94	.563		
Total	56.459	97			

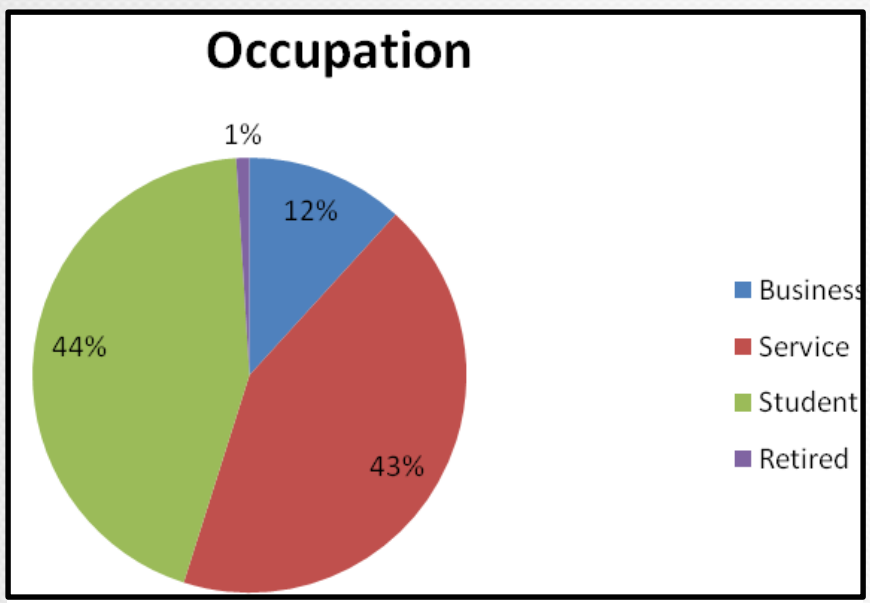
- The p- value from the ANOVA table is greater than the significance value of 0.05 assumed by us. Thus, at this significance level we accept the null hypothesis. So we can conclude that income does not have an impact on the frequency of purchase of online products and services for these respondents.

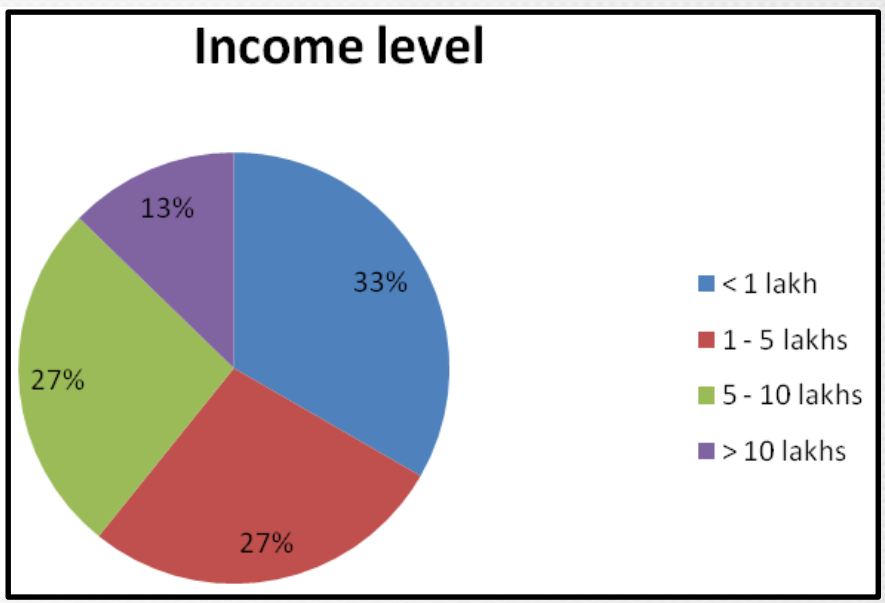
Data Analysis





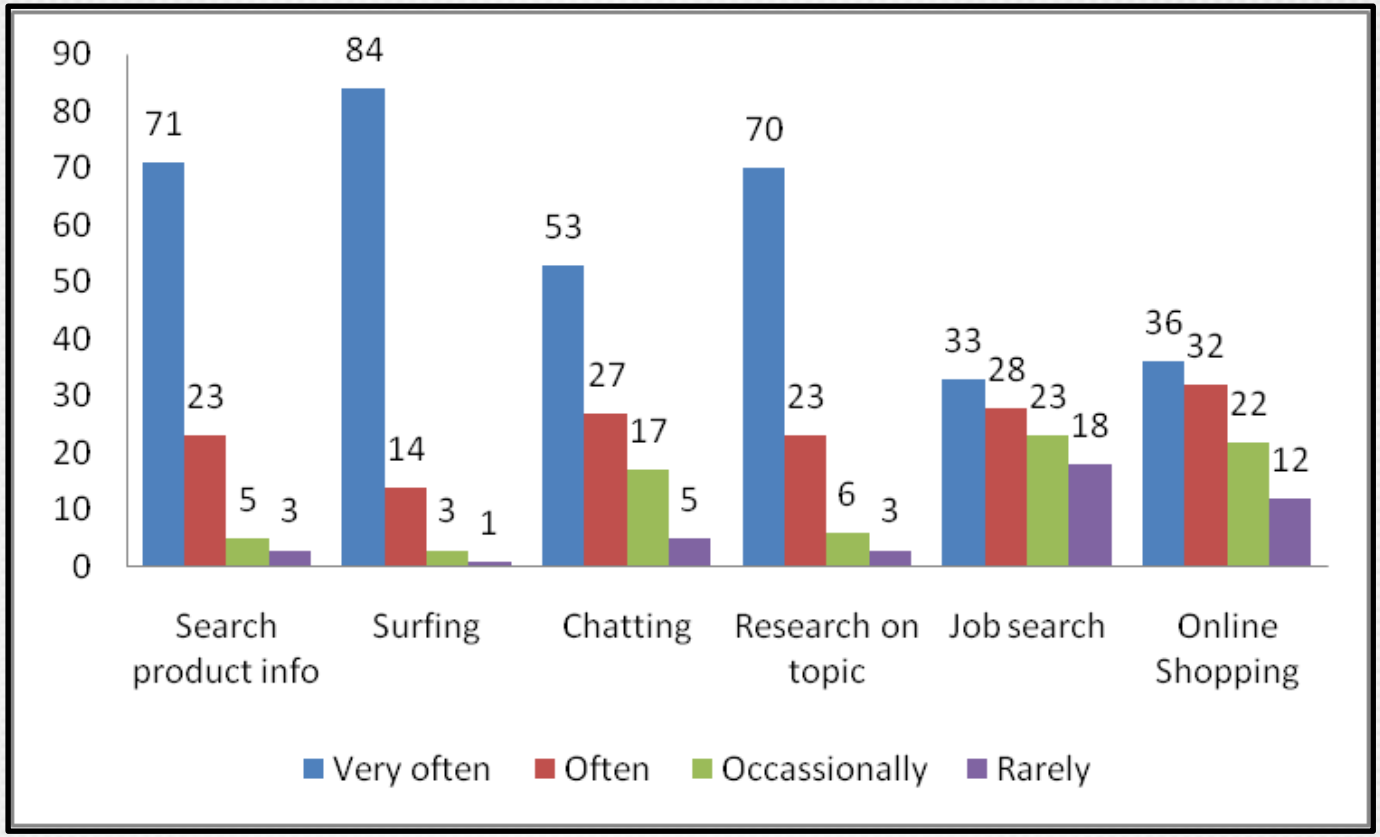
Data Analysis





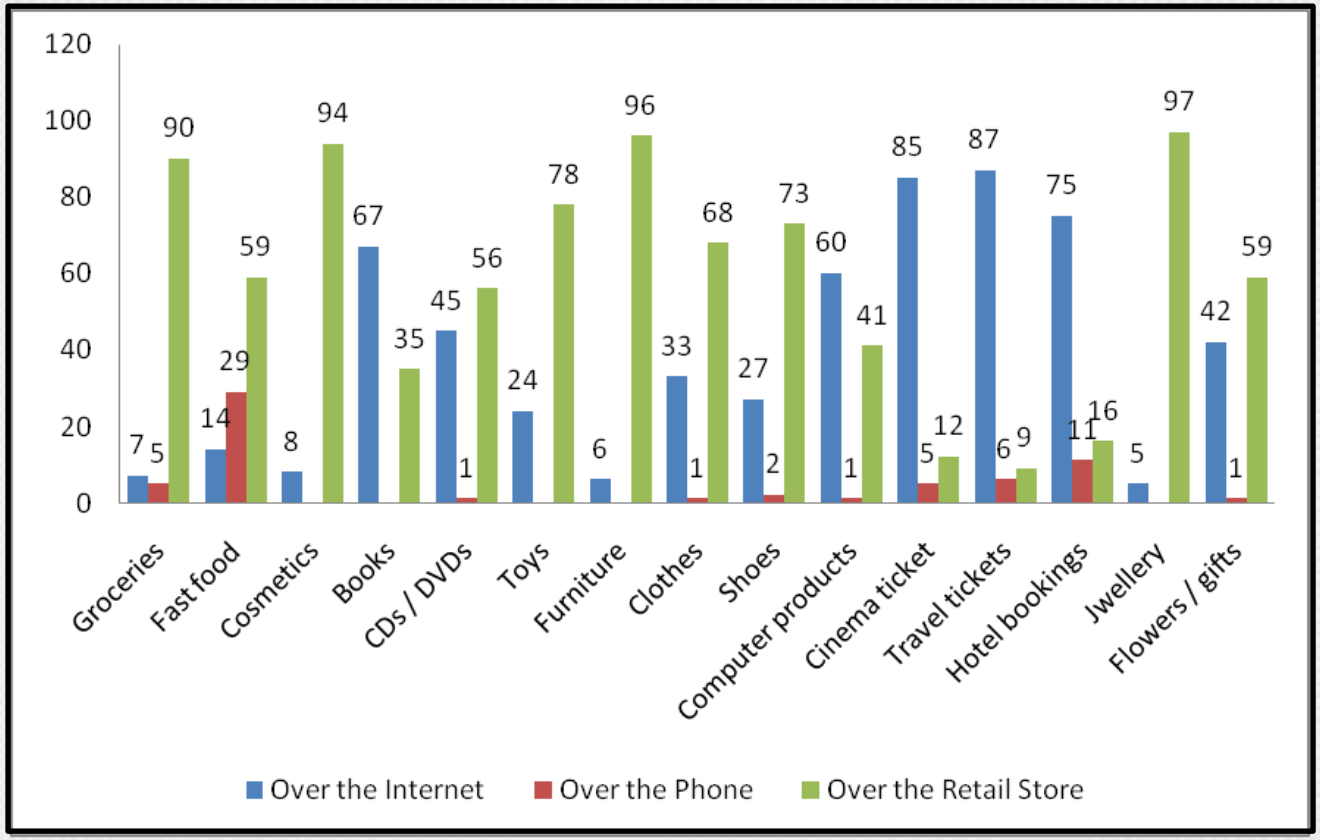
Data Analysis

How often do you use the internet for the following purpose?



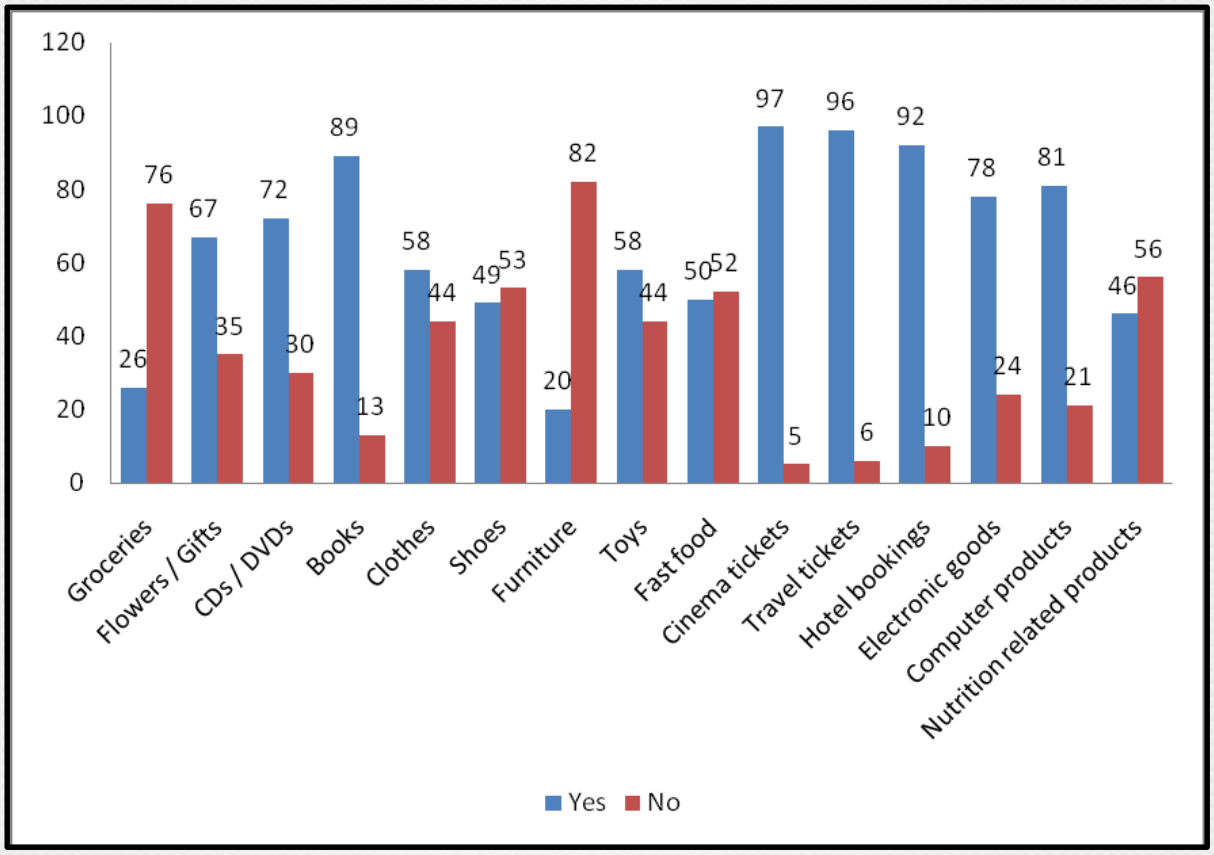
Data Analysis

In general, you prefer to do your shopping of?



Data Analysis

Assuming that you intend to conduct online shopping, which of these purchases would you make on the internet?



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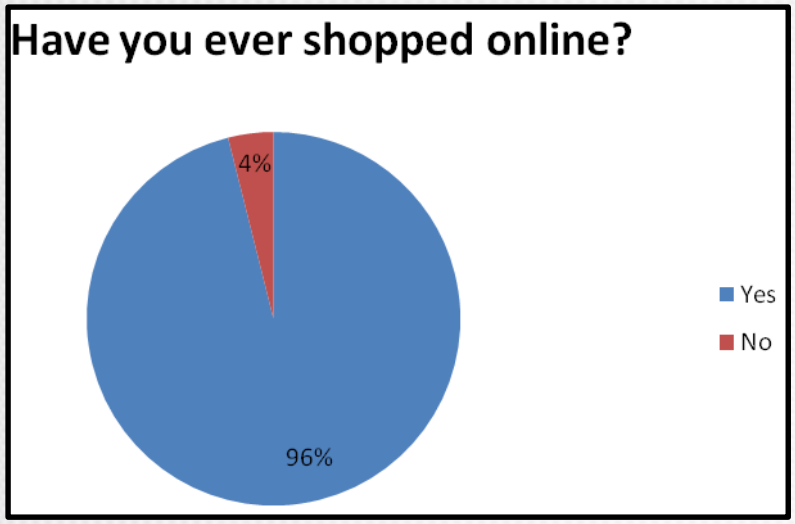

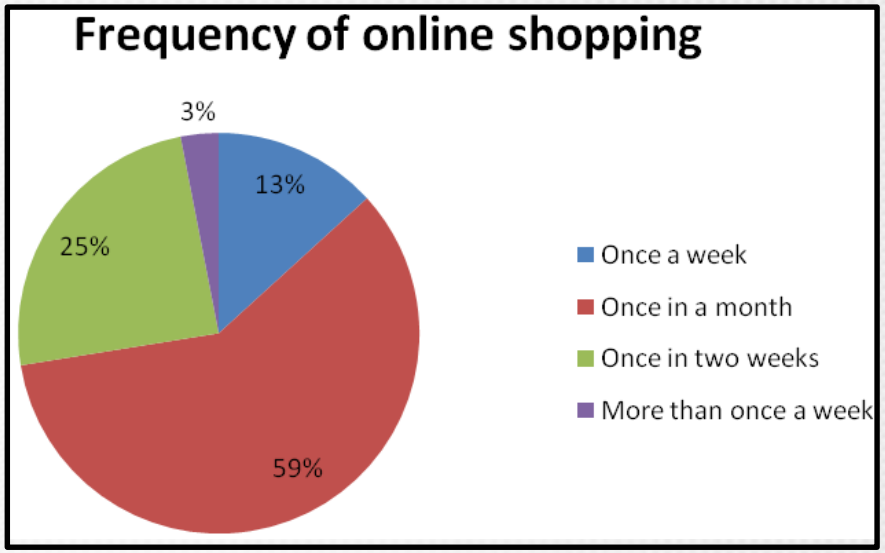

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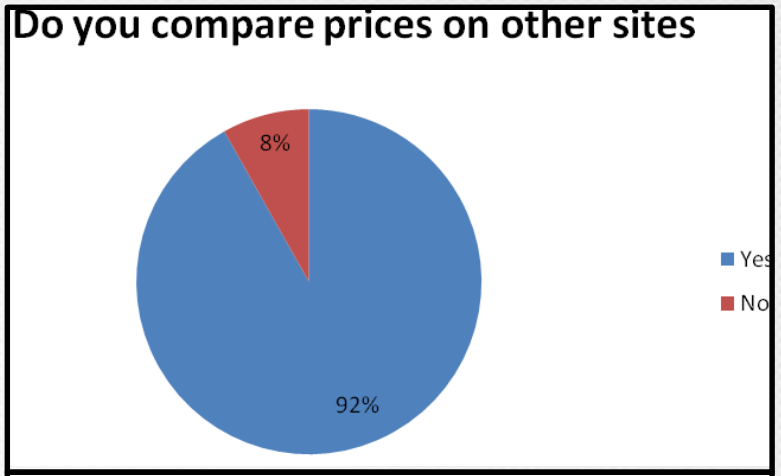

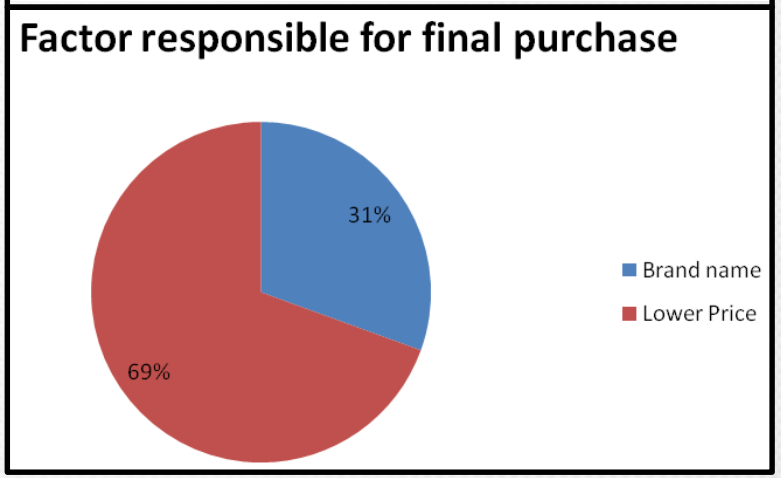

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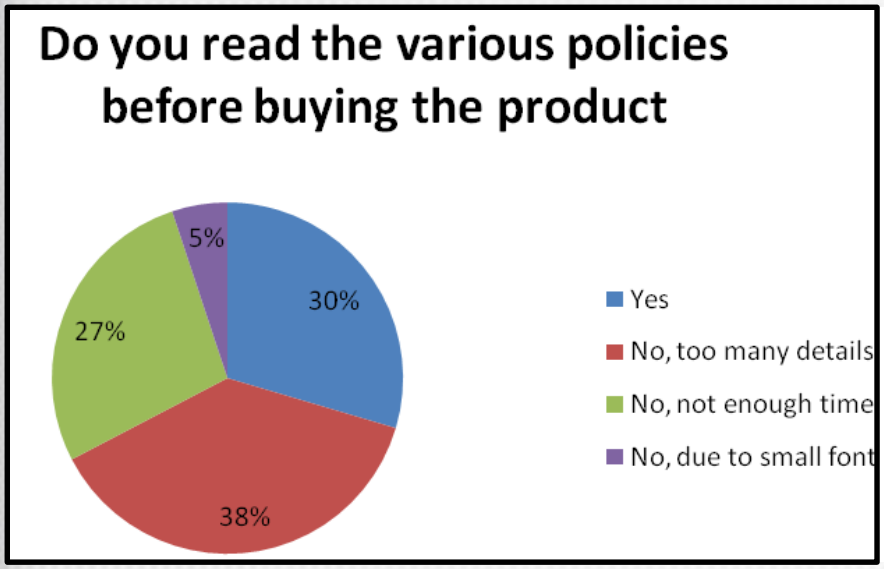
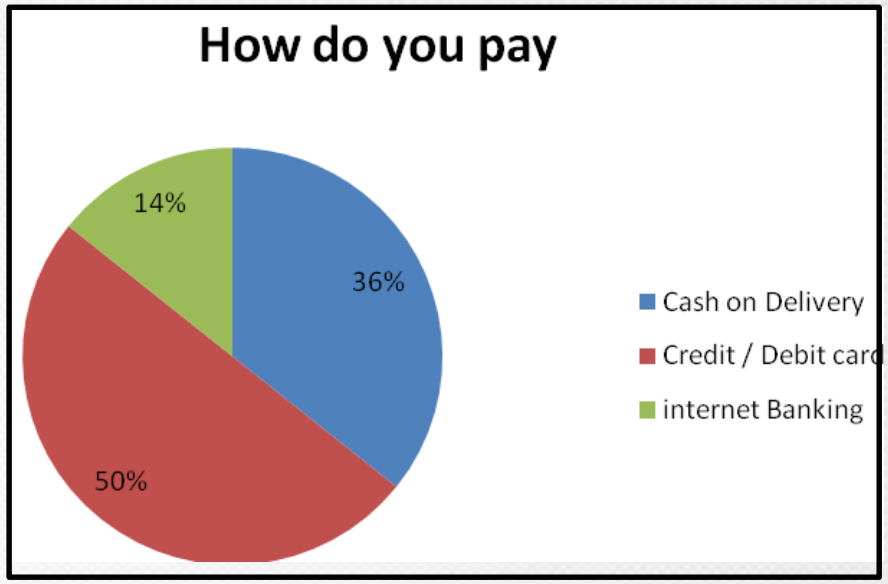
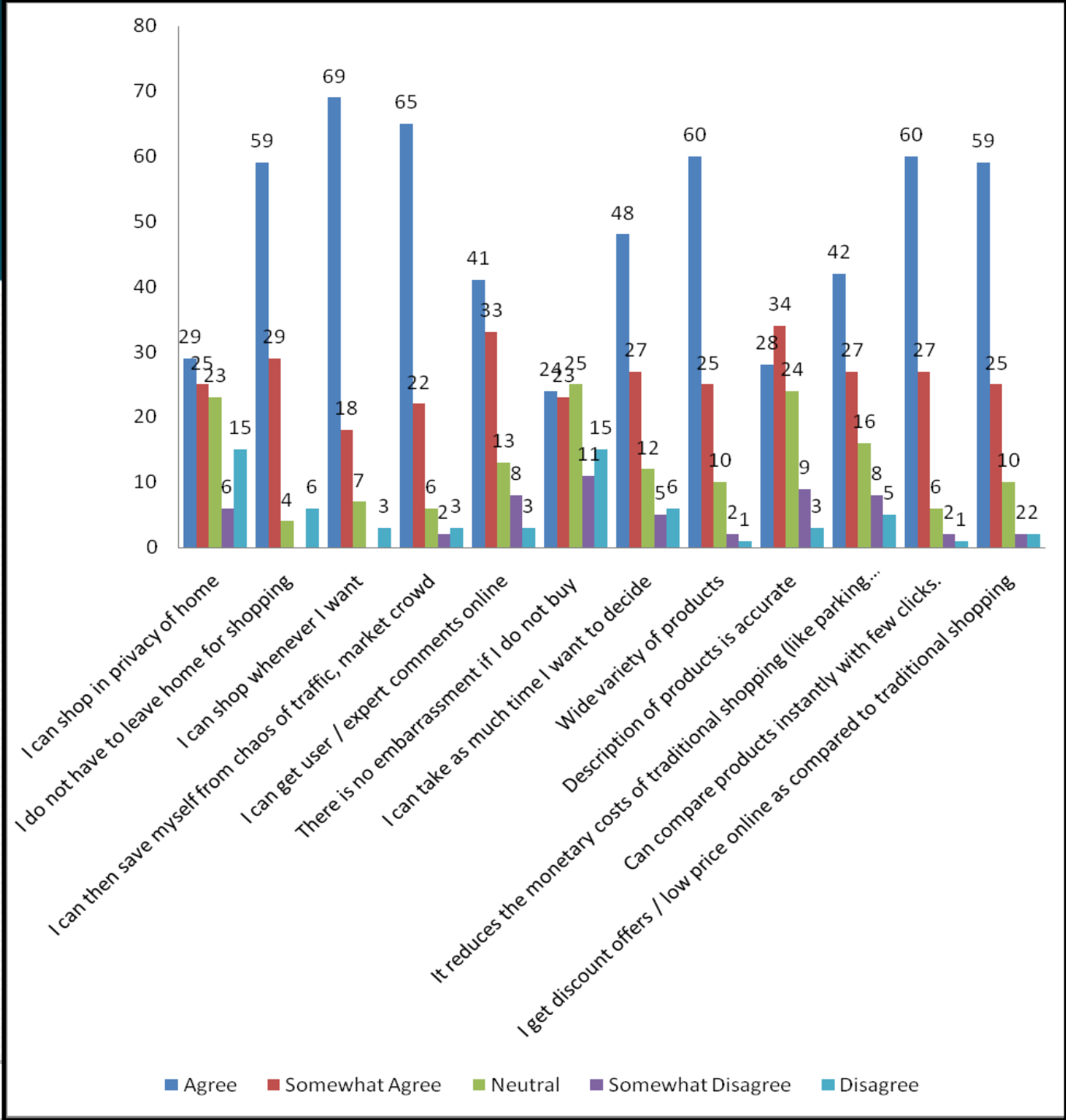
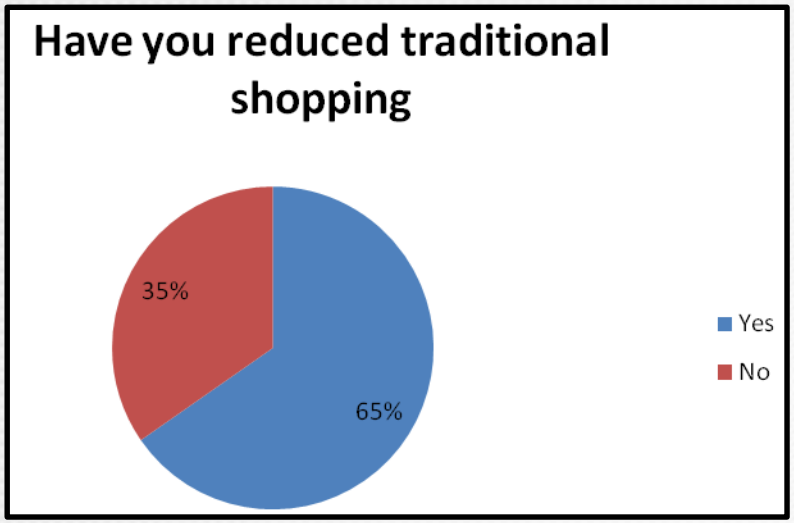


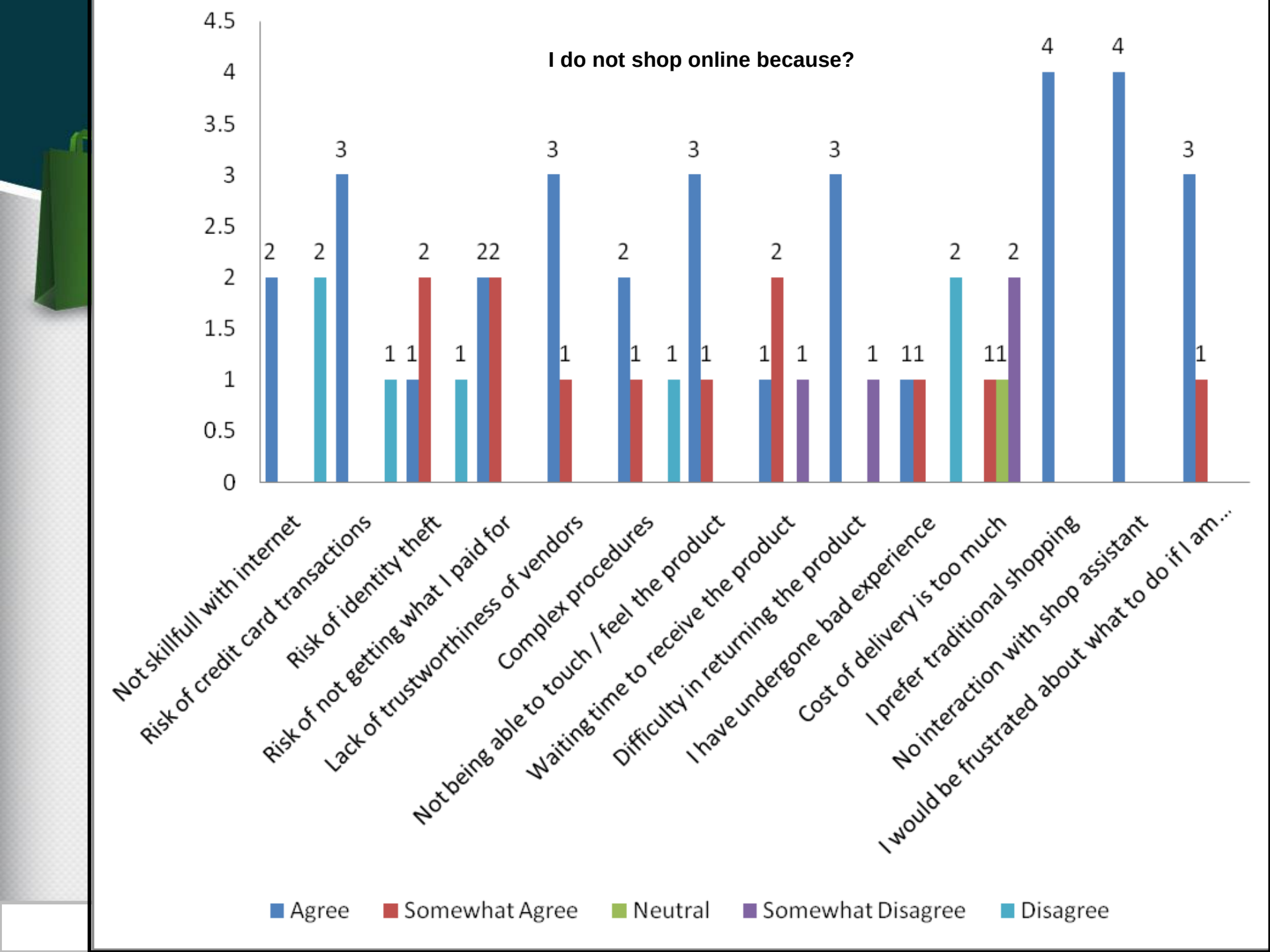


I shop online because?



Data Analysis




I do not shop online because?
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
Not skillfull with internet
Risk of credit card transactions
Risk of identity theft
Risk of not getting what I paid for
Lack of trustworthiness of vendors
Complex procedures
Not being able to touch / feel the product
Waiting time to receive the product
Difficulty in returning the product
I have undergone bad experience
Cost of delivery is too much
I prefer traditional shopping
No interaction with shop assistant
I would be frustrated about what to do if I am...
Agree
Somewhat Agree
Neutral
Somewhat Disagree
Disagree

Recommendations

- Online retailers need to target the age group of 19-35 years as these are the potential customers for them.
- They should come up with exciting offers and deep discounts for students.
- They should come up with offers for corporate people as well.
- Online retailers need to come with interactive systems where the user can upload their picture and shop for stuff like cosmetics and jewelry.
- They need to encourage people to buy groceries and furniture online.
- People are interested in purchasing electronic and computer goods online. Online players should come with exciting offers to target this group of customers.
- The online retailers need to come up with easy process of returning the product.
- They need to educate the customer that paying online is safe and there are no risks of credit card theft.
- They need to reward the customers so that a trust can be built.
- Live chat feature should be there so that the customer can interact with the store staff if he needs any assistance.

Conclusion

From the analysis it can be seen that:

- The major reasons cited for online shopping were:
  - I do not have to leave home for shopping
  - I can shop whenever I want
  - I can then save myself from chaos of traffic, market crowd
  - Wide variety of products
  - Can compare products instantly with few clicks.
  - I get discount offers / low price online as compared to traditional shopping
  - Due to the convenience of online shopping, 65% of the people have reduced the time that they spend on traditional offline shopping.

Conclusion

- Only 4% of the respondents did not shop online so they had to answer this question which captures their reasons for not shopping online. The main reasons cited for not shopping online are:
  - Risk of credit card transactions
  - Lack of trustworthiness of vendors
  - Not being able to touch / feel the product
  - Difficulty in returning the product
  - I prefer traditional shopping
  - No interaction with shop assistant
  - I would be frustrated about what to do if I am dissatisfied with an online purchase

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