

Online Shopping Trends among Students: A Conjoint Analysis

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ABSTRACT

Online shopping is certainly catching on in India, traditional brick and mortar stores are also getting the hand of doing business online because of mushrooming internet penetration. The study has employed conjoint analysis to know the different attributes of shopping orientation, mode of payment, discounts, and type of products preferred by respondents while shopping online. A total of 40 students of Punjabi University Patiala were taken as respondents using convenience sampling technique. The results of the study indicated that the respondents prefer cash on delivery (COD) mode of payment overpayment through net banking/debit/credit card. Also among the products category students are more likely to buy books and stationery online rather than Cosmetics and Accessories, clothing and electronics goods. The study also indicated that respondents' online shopping behavior is also affected by the discounts offered. So basically an attempt has been made by the researcher to throw light on attitudes and trends of buying online by the students of Punjabi University Patiala.

Keywords: Online shopping, Shopping orientation, Mode of payment, product category, discounts, Books and stationery, Cosmetics and accessories, Clothing, Electronics, Conjoint Analysis.

INTRODUCTION:

A few years back, when online shopping was at its nascent stage, there were nominal sales as well as purchases on the online shopping arena. Reasons being lack of internet friendly population, low penetration of mobile phones, computers and internet connections in India, low percentage of credit and debit cardholders and also the non willingness of people to use their credit card on the internet because of perceived security issues. But as the time passed, this scenario has changed massively as people have started trusting online medium of buying and now it has become an integral part of modern life across the world. In India also the internet usage has grown exponentially with increased penetration of internet connections and mobiles as the both these have become affordable enough now a days offering a lot of untapped potential. Consumers on one hand have the ease of selection, the comfort of shopping from home and an infinite variety of products, promotional strategies, better pricing which saves their time as well as money. Organizations, on the other hand, are also benefitted by exploiting the unlimited shelf space the internet offers, operational timings and geographical boundaries liberated by them and the prospect it created to cater to ample markets at a relative miniscule cost. Hence customers and organizations are having a much fuller relationship than ever before. Due to increased internet user base, Internet commerce has become an important business initiative. Organizations are now more serious about their Internet operations witnessing a spiky increase in online retailing activity.

LITERATURE REVIEW:

Various studies have been conducted in this area pointing towards the factors affecting online and have been reviewed for the purpose.

Vellido et al. (2000), pointed out in his research, that there are nine factors associated with user's perception of

online shopping. Among those factors the risk perception of users was demonstrated to be the main discriminator between people buying online and people not buying online. Other discriminating factors were control over, and convenience of, the shopping process, affordability of merchandise, customer service and ease of use of the shopping site.

Nik Kamariah Nik Mat (2005), studied that the higher website trust will create higher intention for online shopping. The study provides the consumers do not trust the website during online shopping. Maybe another factors are very important than trust like types of products. This result however is in contradiction with the result depicted in other research which shows trust level may affect consumers' willingness to purchase and propensity to return to the site.

Bijou Young and Lester (2004) conducted a research study to measure opinion of shoppers' views on online shopping and offline shopping. It was found that online shoppers had consistently shown stronger positive feelings on online shopping than did non- online shoppers. On the other hand, non-shoppers had displayed more negative feelings about online shopping than did non online- shoppers. Online shoppers were aware of some of the discouraging features of online shopping, but these features did not stop them from shopping online.

Sylvain Senecal (2005), analyzed how different is online decision making processes used by consumers influence the complexity of their online shopping behaviors. During an online experiment, subjects were asked to perform a shopping task on a website offering product recommendations. The study concludes that there is a significant difference observed between subjects' decision-making processes and their online shopping behavior. In addition, differences were also found between the online shopping behavior of subjects who consulted but did not follow the product recommendation and subjects who consulted and followed the product recommendation.

Wolfenbarger, M., & Gilly, M. C. (2001) identified and discussed attributes that facilitate goal-oriented online shopping, including accessibility/convenience, selection, information availability and lack of unwanted sociality from retail sales help or shopping partners such as spouses. Importantly, consumers report that shopping online results in a substantially increased sense of freedom and control as compared to offline shopping.

Park, C. H., & Kim, Y. G. (2003) investigated the relationship between various characteristics of online shopping and consumer purchase behavior. Results of the online survey with 602 Korean customers of online bookstores indicate that information quality, user interface quality, and security perceptions affect information satisfaction and relational benefit, that, in turn, are significantly related to each consumer's site commitment and actual purchase behavior.

Rohm, A. J., & Swaminathan, V. (2004) developed a typology based upon motivations for shopping online. An analysis of these motives, including online convenience, physical store orientation (e.g., immediate possession and social contact), information use in planning and shopping, and variety seeking in the online shopping context, suggests the existence of four shopping types. These four types are labeled convenience shoppers, variety seekers, balanced buyers, and store-oriented shoppers.

Overby, J. W., & Lee, E. J. (2006) examined the relevancy of value dimensions for online shopping and the relationship between value dimensions, preference towards the Internet retailer, and intentions. Findings from the large-scale study indicate that utilitarian value is more strongly related than hedonic value to preference towards the Internet retailer and intentions and that shopping frequency can play a moderating role.

Morganosky, M. A., & Cude, B. J. (2000) reported a preliminary assessment of consumer response to and demand for online food retail channels. Over 70 percent reported convenience and saving time as their primary reasons for buying groceries online but 15 percent cited physical or constraint issues that made it difficult for them to shop at grocery stores. Of the respondents, 19 percent bought all of their groceries online. Also reports demographic and online shopping variables that are significantly related to the primary reason for shopping online, willingness to buy all grocery items online, perception of time spent shopping online vs in the store, and experience with online grocery shopping.

OBJECTIVES OF THE STUDY:

- To know the trends among students regarding online shopping.
- To find out the preferences of students regarding mode of payment, product categories, discounts, shopping orientation.

METHOD:

Participants:

Participants included 40 students of Punjabi University Patiala using convenience sampling. The sample has chosen by taking into consideration the fact that they had either purchased online a physical product and or had availed an online service Internet at least once.

Materials & Procedure:

The sample that was chosen from the population was surveyed using a questionnaire that was designed to address all the variables related to the mode of payment, product category, discounts. The researcher had put to use Structured Non-Disguised Questionnaire that was administrated in person for the collection of primary data from amongst the selected representative sampling units. Questionnaire method was used for data collection and the questionnaire was developed. First of all variables associated with mode of payment, product category, discounts, were identified as primary task. Then statements were formulated for measuring each variable. Finally a questionnaire for all the four categories that was divided into 16 profiles on following protocol-

Combination 1				
Rating/Score	MOP	Product	Discounts	Shopping
	Cash	Electronics	Around 30%	Offline
Combination 2				
Rating/Score	MOP	Product	discounts	Shopping
	Cedit/Debit/Net banking	Electronics	Around 50%	Online
Combination 3				
Rating/Score	MOP	Product	discounts	Shopping
	COD	Cosmetics and Accessories	Around 50%	Online
Combination 4				
Rating/Score	MOP	Product	discounts	Shopping
	Cash	Books and Stationary	No Discount	Offline
Combination 5				
Rating/Score	MOP	Product	discounts	Shopping
	Cedit/Debit	Cosmetics and Accessories	Around 30%	Offline
Combination 6				
Rating/Score	MOP	Product	discounts	Shopping
	Cedit/Debit	Clothing	No Discount	Offline
Combination 7				
Rating/Score	MOP	Product	discounts	Shopping
	COD	Books and Stationary	Around 30%	Online
Combination 8				
Rating/Score	MOP	Product	discounts	Shopping
	Cedit/Debit/net banking	Cosmetics and Accessories	No Discount	Online
Combination 9				
Rating/Score	MOP	Product	discounts	Shopping
	Cedit/Debit	Books and Stationary	Around 50%	Offline

Combination 10				
Rating/Score	MOP	Product	discounts	Shopping
	Cedit/Debit/Net banking	Books and Stationary	No Discount	Online
Combination 11				
Rating/Score	MOP	Product	discounts	Shopping
	Cedit/Debit	Electronics	No Discount	Offline
Combination 12				
Rating/Score	MOP	Product	discounts	Shopping
	Cash	Clothing	Around 50%	Offline
Combination 13				
Rating/Score	MOP	Product	Discounts	Shopping
	Cedit/Debit/Net banking	Clothing	Around 30%	Online
Combination 14				
Rating/Score	MOP	Product	Discounts	Shopping
	Cash	Cosmetics and Accessories	No Discount	Offline
Combination 15				
Rating/Score	MOP	Product	Discounts	Shopping
	COD	Clothing	No Discount	Online
Combination 16				
Rating/Score	MOP	Product	Discounts	Shopping
	COD	Electronics	No Discount	Online

Respondents were shown these combinations and asked to choose from, rank or rate the products they are shown.

ANALYSIS OF DATA:

Statistical procedures like Conjoint analysis, frequency analysis and cross tabulation were used. Analysis has been represented in graphical and tabular formats as and when required.

RESULTS:

Conjoint Analysis:

The total number of profiles resulting from all possible combinations of the levels becomes too great for respondents to rank or score in a meaningful way. To solve this problem, the full-profile approach uses what is termed a fractional factorial design, which presents a suitable fraction of all possible combinations of the factor levels. The resulting set, called an orthogonal array, is designed to capture the main effects for each factor level. Interactions between levels of one factor with levels of another factor are assumed to be negligible.

Model description:

Attributes	No. of Levels	Relation to Ranks or Scores
Mode of Payment	2	Discrete
Product	4	Discrete
Discounts	3	Discrete
Shopping orientation	2	Discrete

All factors are orthogonal.

With large numbers of attributes and levels, it is impossible to test all combinations, so we have to choose a subset (a fractional factorial design). Therefore, this design, rather than showing thousands of combinations,

shows a much smaller number – typically less than 30 – knowing that the statistical analysis at the end would be able to separate out the main effects from the design.

Analysis of Utility Table:

Utilities			
		Utility Estimate	Std. Error
Mode of Payment	COD/Cash	.125	.112
	Cedit/Debit/Net banking	-.125	.112
Product	Clothing	-.153	.195
	Electronics	-.066	.195
	Books and Stationary	.678	.195
	Cosmetics and Accessories	-.459	.195
Discounts	No Discount	-1.817	.150
	Around 30%	.261	.176
	Around 50%	1.555	.176
Shopping orientation	Online	-.372	.112
	Offline	.372	.112
(Constant)		5.570	.118

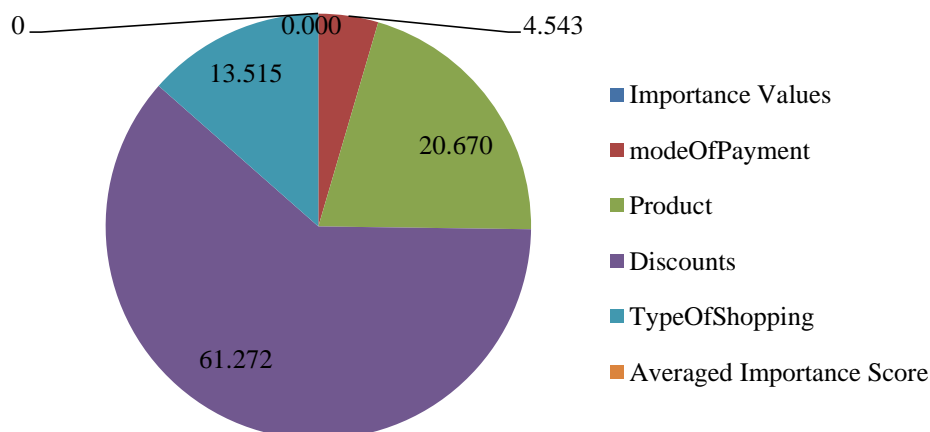
The values here indicate the preference given to various attributes such as products, discounts offered, shopping orientation and the mode of payment chosen . Higher the utility values, higher are the preference given.

Importance values:

Importance Values	
Mode of Payment	4.543
Product	20.670
Discounts	61.272
Shopping orientation	13.515

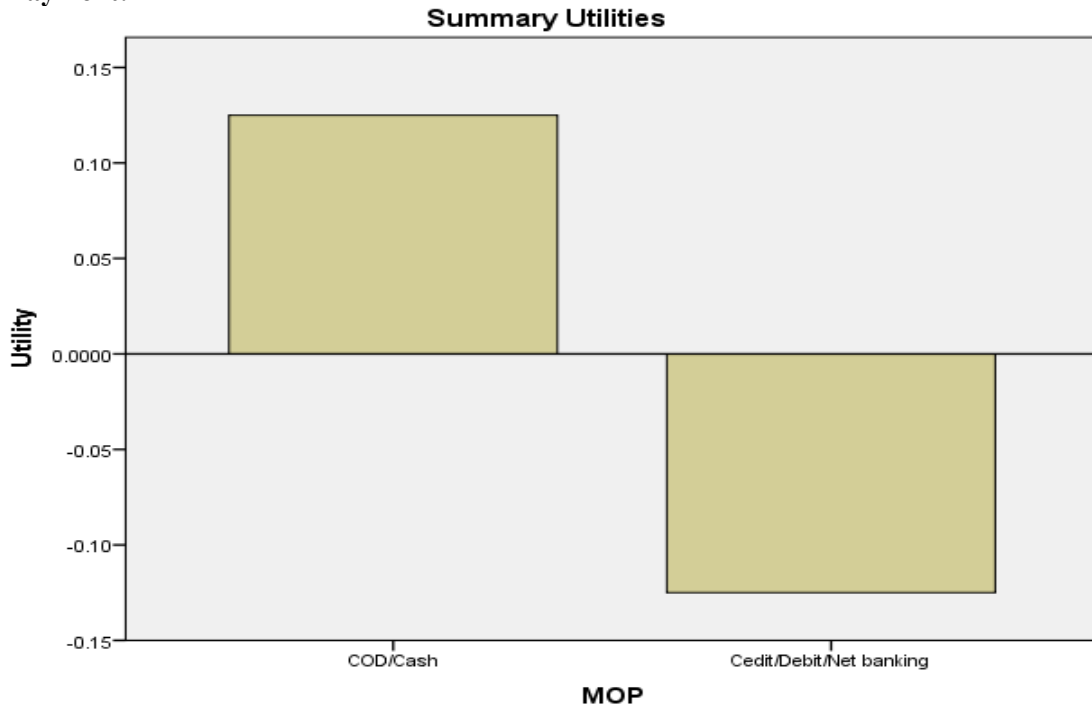
Averaged Importance Score:

This table is showing the importance values of different attributes namely mode of payment, product category, discounts and shopping orientation. The values are indicating that only 13% of people are concerned about the type of shopping. 61% of respondents give preference to the discounts being offered and only 4% consider the mode of payment while shopping and 20% people are concerned about the products in focus.



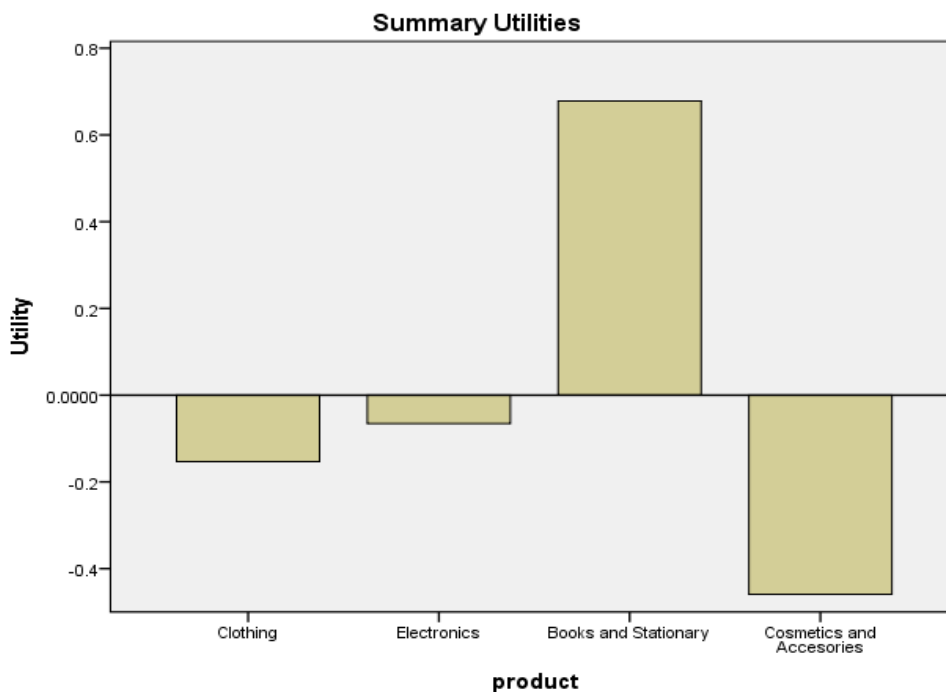
Graphical Representation of Analysis

Mode of Payment:



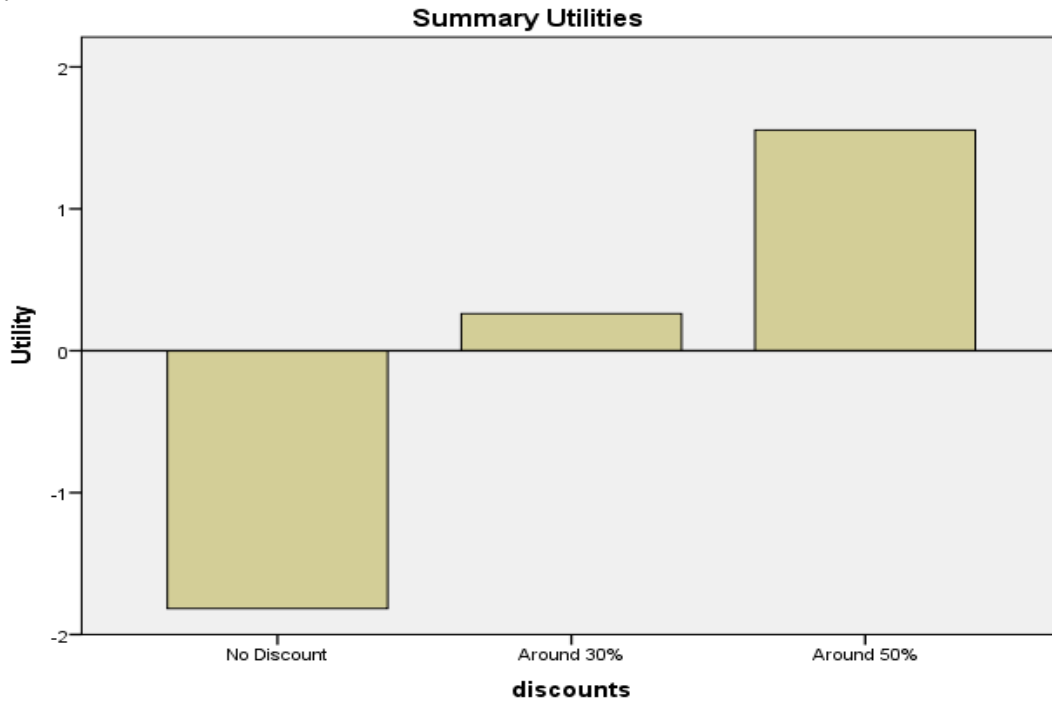
This graph is showing preferences regarding mode of payment while shopping online and the results indicated that the respondents prefer Cash on Delivery mode of payment over the credit, debit and net banking.

Product Category:



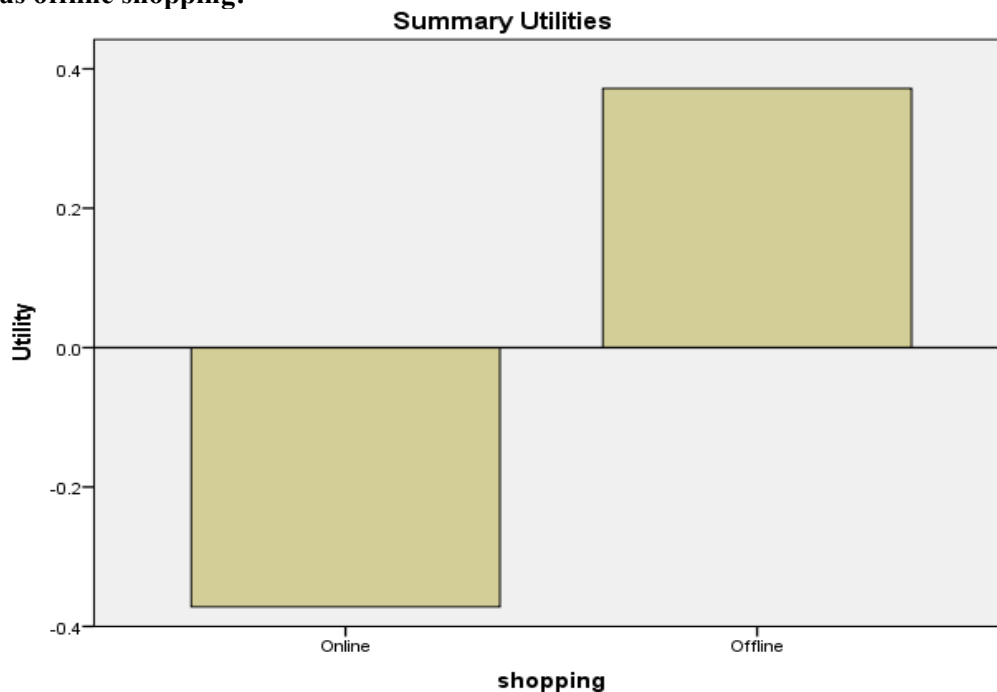
This graph is showing the preferred category of products by respondents when they shop online. Among different categories of products shown in given combinations respondents indicated their preference towards Books and Stationary rather than Clothing, electronic goods, and cosmetics and accessories. Here the graph also indicated that among all product categories cosmetics and accessories are least preferred by the respondents in the study.

Discounts:



The above graph is showing the different levels of discounts, and the results of the study indicated that the major stress is given on discounts, regardless of the product in focus, and the preferred discount is around 50%.

Online versus offline shopping:



The graph is showing respondents preference towards online versus offline shopping orientation, respondents prefer offline shopping more than online shopping .

Frequency Analysis:

Following is the frequency analysis of scores/ ratings given to different combinations by respondents.

FREQUENCY ANALYSIS:

Card number	Mean	Median	Mode	Standard dev.
1	6.175	6.175		2.392646
2	6.5	7	7	2.40276
3	6.875	8	10	2.890815
4	4.975	5	5	2.764469
5	5.6	5	5	2.879676
6	4.05	4	1	3.027578
7	6.675	7	8	2.403237
8	2.775	2	1	2.038761
9	7.825	8	10	2.227575
10	3.7	3	1	2.506711
11	4.6	5	4	2.257891
12	7.3	8	9	2.486373
13	4.875	5	5	2.441725
14	3.375	2	1	2.666276
15	3.625	3	1	2.977737
16	2.925	2	1	2.155543

DISCUSSION & CONCLUSION:

In the past few years the growth of no. of internet users has been phenomenal. With the government focusing more on increasing penetration of internet with its flagship schemes like digital India the growth patterns are likely to continue in the future. Moreover more and more retailers have shifted or thinking of shifting their business online. In such a scenario, knowing the online shopping behavior of consumers becomes more important. The present study made an attempt in this regard. The study came out with very interesting findings. Using different combinations of different attributes of shopping by using conjoint technique the respondents are asked to give values to these combinations as per their views. The findings of the study indicated that among different attributes namely mode of payment, product category, discounts, shopping orientation, they give maximum importance to discounts. Moreover among these attributes different levels were given. In case of mode of payment, respondents prefer COD over online methods of payment. In case of discounts they give more value to higher level of discounts i.e. around 50% discounts. Among product categories, books and stationery is the most preferred category when they shop online over all other given categories namely; cosmetics and accessories, clothing and electronic products. Another interesting finding of the study indicated respondents' preference of offline shopping over online shopping. This somewhere reflects their lack of confidence or feeling of insecurity while shopping online. It paves the way for further studies in this direction to see if why people hesitate while shopping online, what the factors are that affects their acceptance of online buying etc. All this will be of immense use for the organizations to know more about the consumer needs and requirements and to expand their business. Many people still find information on the internet, but buy their products offline at conventional stores. This implies that people still are lacking trust buying online. This trend can be contained by addressing security issues for transactions, and quick customer service.

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