# Gender as a Determinant of factors of Online Shopping

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Online shopping is the process whereby consumers directly buy goods or services from a seller anytime from anywhere in the world. But male and female seems to have a difference in perception related to online shopping. Hence, this study was undertaken to compare the perception of male and female customers and increase our ability to provide more targeted, relevant and desirable user experience. The respondents were asked to give the online responses for the designed questionnaire in google doc. The results of online survey were analyzed using t-test for the different factors contributing to online shopping. A significant difference was observed for the financial instrumentation and risk association factor, while no significant difference was observed between perception of male and female consumers for all other factors related to online shopping.

Keywords: Online Shopping, Product, Accessibility, Security etc.

### INTRODUCTION

The global and convenient nature of internet makes online shopping a perfect market place for users. The growth of e-shopping has reshaped consumers' shopping behavior. Online shops make comparison and research of products and prices possible. Online stores also give you the ability to share information and reviews with other shoppers who have actual experience with a product or retailer. Companies can easily market their product in the whole world, thereby creating a great market. Business has gained an opportunity to increase their sale and can maintain a direct relationship with its customers without any other person between you and your customer. Online buying could be a substitute for traditional shopping media, and may well dominate the exchange of certain products (e.g., digital assets) in the future (Cao and Mokhtarian, 2005). Online shopping has become a significant part of our life as a result of the growing internet and our busy schedule. This adds up to faster, easier, safer and less costly shopping. Companies also use the

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internet to convey, communicate and disseminate information, to sell the product. to take feedback and also to conduct satisfaction surveys with customers. Customers use the internet not only to buy the product online, but also to compare prices, product features and after sale service facilities they will receive if they purchase the product from a particular store.

According to AcNielsen (2007), more than 627 million people in the world have shopped online. Forrester (2002) research estimates e-commerce market will reach \$228 billion in 2007, \$258 billion in 2008 and \$288 billion in 2009. By 2010 e-commerce will have accounted for \$316 billion in sales, or 13 percent of overall retail sales. In order for the internet to expand as a retail channel, it is important to understand the consumer's attitude, intent and behavior in light of the online buying experience: i.e., why they use or hesitate to use it for purchasing. According to Zhou (2004) no prior research has correlated gender to the antecedents of online shopping which include perceived usefulness and ease of use and the factors may include shopping motivation, innovativeness, perceived outcome, shopping orientation and normative beliefs. According to Ostrowski et al.(2009), while functional factors such as price, convenience, and availability seem to be predictive of Web shopping, the role of demographics—age, gender, and education has not been as clear. Fram and Grady (1997), Kunz (1997), Mehta and Sivadas (1995) and Sultan and Henrichs (2000) also suggested that for Internet buyers, gender, marital status, residential location, age, education, and household income were frequently found to be important predictors of Internet purchasing. Since male and female seems to have a difference in perception related to online shopping. this study was undertaken to compare the perception of male and female customers and increase our ability to provide more targeted, relevant and desirable user experience. In fact, the study of gender differences has been a fertile area in marketing research, but it seems that there are few studies that explore gender differences in online buying.

#### LITERATURE REVIEW

There are many factors which contribute to online shopping. These include website design and satisfaction (Cyr and Bonanni, 2005), accessibility to shop during off-hours, avoiding trip to the stores, saving time, being able to purchase from non local merchants, competitive prices, avoiding salesman pressure and easier product-comparison, email usage (Gefen and Straub, 2003), social norms (Venkatesh and Morris, 2000), trust (Awad and Ragowsky, 2008; Cyr and Bonanni, 2005), technology acceptance (Awad and Ragowsky, 2008), lack of physical product touch, privacy invasion, lack of knowledge of shopping channels, unwillingness to pay and wait for delivery, website reliability, lack of satisfaction with products, lack of ability to use online shopping, desire for recreational shopping experiences, absence of physical store exposure, Internet fraud and transaction security (Ellen et al. 1991; Pastore, 1999, 2000, 2001; Jeandrain, 2001; Lynch et al., 2001; Fuscaldo, 2003).

In a cross-cultural study of 12 countries, Yang and Lester (2004) found that web site quality, trust and positive affect toward it were critical in predicting both the shoppers purchase intentions and loyalty of visitors to the site. Shergill and chen (2005) identified four factors (measured from seventeen items) which influence consumers perceptions of online shopping which include web site design, web site reliability, web site customer service and web site security. They also found that four types of buyers (trail, occasional, frequent and regular) perceived the four factors (web site design, web site reliability, web site customer service and web site security) differently.

Women tend to be more sensitive to related information online than men when making judgments causing subsequent purchase attitudes and intentions presented by men and women to differ. In other words, females make greater use of cues than males. This seems that when making consumption decision, women seek more information than men. Swaminathan et al. (1999) reported that male internet buyers were more convenience oriented and less motivated by social interaction than women internet buyers. Alreck and Settle (2002) indicated that women have more positive attitudes toward shopping, whereas, men prefer shopping via internet.

Weiser, E. (2000), studied gender difference in usage patterns and internet application preference resulted from a survey assessing gender differences in relation to specific usage of the internet. Numerous gender differences in preference for specific internet application emerged. Result showed that males used the internet mainly for purposes related to entertainment and leisure, whereas women used it primarily for interpersonal communication and educational assistance. However, Honda and Gupta (2009) concluded that gender has no influence on the innovativeness of online shoppers and both male and female have a higher score for domain specific innovativeness as compared to the open processing innovativeness.

In 2000, women represented the major online holiday season buyer (Rainne, 2002; Sultan and Henrichs, 2000). According to a report by the Pew Research Center (2001), the number of women (58%) who bought online exceeded the number of men (42%) by 16%. Among the woman who bought, 37% reported enjoying the experience "a lot" compared to only 17% of male shoppers who enjoyed the experience "a lot". Akhter (2012) indicated that more educated, younger, males, and wealthier people in contrast to less educated, older, females, and less wealthier are more likely to use the Internet for purchasing.

Chi et al. (2005) reviewed several studies that identified different influences on the formation of beliefs regarding the usefulness, ease of use , innovativeness and security and suggested that additional work is necessary to integrate these theories and compare the differences from a gender perspective.

#### RESEARCH METHODOLOGY

**The Study:** The study is aimed to understand the difference in perception of male and female consumers towards different factors of online shopping.

The Sample: The data was collected from 400 respondents of different demographics. (Table 5). These cover 248 from India and 152 from USA - Equal representation for females in India and slightly less in USA. In all 210 males and 190 females were covered on the sample.

Tools for Data Collection: A self structured questionnaire was used to collect the relevant data from different individuals. The questionnaire included 26 questions for collecting the information describing the different characteristics of the online shopping. All items were measured by responses on a likert scale, ranging from 1= Strongly Disagree to 5= Strongly Agree.

Tools for Data Analysis: The Cronbach's alpha of a test is deemed acceptable when its reliability coefficients exceed the 0.8 level (Sengupta and Zviran, 1997). Our instrument had a reliability of 0.886, hence our questionnaire was considered appropriate

On the basis of pilot study, seven factors emerged contributing to online shopping namely Product Constituent (% of var =11.974), Financial Instrument (% of var = 10.190), Risk Association (% of var = 9.480), Wide Accessibility (% of var = 9.369), User Friendly Interface (% of var = 6.729), Convenience (% of var = 6.595) and Physical Touch Absence (% of var = 6.241). The total percent of variance for dimensions was 57.604% and the Eigen values for each dimension was more than one. The details of these factors tabularized with their item loads, Eigen values and percent of variances are shown in Table 2. On the basis of these dimensions, following 7 hypotheses were framed. T-test was applied to test these hypotheses.

T-test assumes that variables should have normal distributions. Nonnormally distributed variables (highly skewed or kurtotic variables, or variables with substantial outliers) can distort relationships and significance tests. The skewness and kurtosis value of all the variables in our study were found to be lying between ±1 (Table 3). Thus this shows that the distribution of all the variables is normal. Also the Kolmogorov-Smirnov statistic of all the variables was found be significant which further confirms the normality of the data.

## **HYPOTHESES**

 $\mathbf{H}_{01}$ : There is no significant difference between the perception of male and female customers regarding online shopping with respect to Product Constituent factor.

**H**<sub>02</sub>: There is no significant difference between the perception of male and female customers regarding online shopping with respect to Financial Instrument factor.

 $\mathbf{H}_{03}$ : There is no significant difference between the perception of male and female customers regarding online shopping with respect to User Friendly Interface factor.

**H**<sub>04</sub>: There is no significant difference between the perception of male and female customers regarding online shopping with respect to Wide Accessibility factor.

 $\mathbf{H}_{05}$ : There is no significant difference between the perception of male and female customers regarding online shopping with respect to Risk Association factor.

 $H_{06}$ : There is no significant difference between the perception of male and female customers regarding online shopping with respect to Convenience factor.

**H**<sub>07</sub>: There is no significant difference between the perception of male and female customers regarding online shopping with respect to Physical Absence factor.

#### RESULTS AND DISCUSSION

As per the table 1, since p value is less than 0.1 for  $H_{02}$  and  $H_{05}$  while it is greater for  $H_{01}$ ,  $H_{03}$ ,  $H_{04}$ ,  $H_{06}$  and  $H_{07}$ . Hence, it can be inferred that all the hypotheses except  $H_{02}$  and  $H_{05}$  are accepted at 10% level of significance. This means that a significant difference was observed in the perception of male and female customers regarding Financial Instrumentation and Risk Association factor for online shopping. This seems to be true since, in developing countries there is a lot of difference in the perception of the male and female with respect to both of them. Male and Female have a different exposure related to financial aspect and risk factor and hence their perception also varies. However, the perception may vary with the developed countries.

Since, consumer is familiar with a product, its brand and holds some strong associations in memory, hence there is less probability of consumers belonging to different genders to have different perception regarding product constituent. Hence, no significant difference was observed in the perception of male and female customers regarding product constituent. Nowadays, with the development of technology, since both genders seem to have equivalent resources and equal access to the internet, no significant difference was observed for the remaining factors namely wide accessibility, product constituent, user friendly interface, convenience and physical absence. This also seems to be true because all other factors are implemented in the same manner and have the same meaning to male and female online shopping users. These factors are generally the same because of the same technological nature of internet which remains the same throughout the world and the companies providing online products and services are aware of these general features of online shopping.

In accordance with our study, Huang and Yang (2010) findings also indicate that, there are some differences between the shopping motivations of males and females. However, their results suggest that factors such as convenience, cost saving and lack of sociality are the main reasons affecting male adolescents for internet shopping, and the primary factors affecting female adolescents for web-based shopping are fashion, adventure and sociality.

#### CONCLUSION, IMPLICATIONS AND LIMITATIONS

Significant effect related to financial instrumentation and risk association feature was observed in perception of male and female online shopping users. Further, no significant effect was observed in the perception of male and female consumers for other factors of online shopping. In order to attract more users to online shopping, it will require more than simply making the system easier to use. Well developed website with reliable and secured functions is the need of the hour to promote online shopping usage. Customers are likely to adopt online shopping, when they find a secure and reliable system, which allow them to build a good perception on online shopping. Companies should set-up a reliable and effective feedback system so that consumer can contact them at anytime. Besides, efforts should be made to educate the consumers about the usefulness and operation of this service. Customers should also be made more aware of cyber laws and more secure modes of payments need to be introduced by online companies.

This study will provide valuable information to companies tending to understand the online shopping behavior of consumer. This comprehensive survey regarding the perception of customers regarding online shopping, will be of great use for those companies, which have still not fully adopted online services. They can concentrate on relevant factors for increasing the usage as per the requirements of the customers. This study will be more useful

for the planners, policy makers, online industry and those who are interested in e-commerce studies

As with any research, this study has several limitations. Firstly, the survey concentrates on limited citizens of India and USA, which does not represent the whole global market. The results may vary with different sample, geographical areas and demographics. Although this research is primarily based on the primary data from the users of online shopping, the findings cannot be generalized, as the research is based on non probability sampling. Companies launch new features at a very fast pace and every new edition tries to enhance. This can strongly affect the consumer's perception and also limits the scope of the research as it may yield different results if done at a different time. Like every study involving human feedback, there is always a big room for bias. Respondents could have provided with false information due to the thought that it might reflect their personality.

#### REFERENCES

- 1. AcNielsen (2009). Indians beat world in cyber. [online document].
- Akhter, S.H. (2012), who spends more online? The influence of time, usage variety, and privacy concern on online spending. *Journal of Retailing and Consumer Services*, 19(1), 109-115.
- 3. Alreck, P. and Settle, R. B. (2002). Gender Effect s on Internet, Catalogue and Store Shopping, *Journal of Database Marketing*, 9(2),150-162.
- 4. Awad, N.F. and Rogowsky, A. (2008). Establishing trust in electronic commerce through online word of mouth: An examination across genders. *Journal of Management Information Systems*, 24(4), 101-121.
- Cao, X. and Mokhtarian, P. L. (2005). The Intended and Actual Adoption of Online Purchasing: A Brief Review of Recent Literature. Research Report UCD-IT S-RR-05-07. Available at http://www.its.ucdavis.edu/publcations/2005/UCD-ITS-RR-05-07.pdf
- 6. Chi, Y., Lin, C, & Tang, L. (2005). Gender differs: Assessing a model of online purchase intentions in e-tail service. *International Journal of Service Industry Management*, 16(5), 416-435.
- 7. Cyr, D. and Bonanni, C. (2005). Gender and website design in e-business. *International Journal of Electronic Business*, 3(6), 565-582.
- 8. Dillon, T. and Reif, H. (2004). Factors Influencing Consumers \*\*TM\* Factors Influencing Consumers E-Commerce Commodity Purchases Commerce Commodity Purchases. Information Technology, Learning, and Performance Journal, 22 (1).
- 9. Ellen, P.S., Bearden, W.O. and Sharma, S. (1991). Resistance to Technological Innovations: An Examination of the Role of Self-Efficacy and Performance Satisfaction. *Journal of the Academy of Marketing Science*, 19(4), 297-307
- Fram, E. H., & Grandy, D.B. (1997). Internet shoppers: Is there a surfer gender gap?. Direct Marketing, 59(1), 46-50.

- Forrester Research Inc. (2002). "NRF/ Forrester online research index." Cambridge, MA: Forrester Research, Inc. [Online]. Available: http:// www.forrester.com.
- Fuscaldo D. (2003). E-Commerce: Selling Strateiges The Cyber-Shoppers NextDoors. Wall Street Journal
- 13. Gefen, D. and Straub, D. (2003). Managing user trust in B2C e-services. E-Service Journal, 2(2), 7-24.
- Honda, M. and Gupta, N. (2009), Gender Influence on the Innovativeness of Young Urban Indian Online Shoppers. VISION, 13(2), 25-32
- Huang Jen-Hung and Yang Yi-Chun (2010). Gender differences in adolescents' online shopping motivations. African Journal of Business Management, 4(6), 849-857,
- Jeandrain (2001). Consumer Reactions in a Realistic Virtual Shop: Influence on Buying Style. Journal of Interactive Advertising, 2(1), 1-16.
- Kunz, M.B. (1997). On-line customers: identifying store, product and consumer attributes which influences shopping on the Internet. Published doctoral dissertation. The University of Tennessee, Knoxville.
- Lynch, P.D., Rent, R.J. and Srinivasan, S.S (2001). The Global Internet Shoppers: Evidence from Shopping Tasks in Twelve Countries. Journal of Advertising Research,
- Mehta, R., & Sivadas, E. (1995). Direct marketing on the Internet: Ann empirical assessment of consumer attitudes, Journal of Direct Marketing, 9(3), 21-32.
- Ostrowski, P. et al. (2009). A Determination Of Non-Functional Shopping Motivations Of Y-Generation Online Shoppers
- Pew Research Center (2001). More online, doing more: 16 million newcomers gain Internet access in the last half of 2000 as women, minorities, and families with modest incomes continue to surge online. Retrieved July 24, 2001. [Online]. Available: http:// /www.pewinternet.org/reports/toc.asp?Report=30.
- 22. Pastore M (1999). Consumers Concerned with Reliability. CyberAtlas. Retreieved from, http://cyberatlas.internet.com
- 23 Pastore M (2000). No Shortage of Online Shoppers. CyberAtlas. Retreived from http:/ /cyberatlas.internet.com
- Pastore M (2001 a). Convenience Key to Successful Holiday Season. Cyber Atlas. Retreived http://cyberatlas.internet.com
- Pastore M (2001 b). e-Commerce Trudges through Current Slowdown. CyberAtlas. Retreived from http://cyberatlas.internet.com
- 26. Rainne, L. (2002). Internet and American life. Washington, D. C.: Pew Internet and American Life Project
- Sengupta, K. and Zviran, M. (1997). Measuring User Satisfaction in an Outsourcing Environment. IEEE Transactions on Engineering Management, 44(4), 414-21.
- Shergil, G.S., and Chen, Z. (2005). Web-based shopping: consumers' attitudes towards online shopping in New Zealand. Journal of Electronic Commerce Research, 6(2), 79-94.

- 29. Sultan, F., and Henrichs, R.B. (2000). Consumer preferences for Internet services over time: initial explorations. *The Journal of Consumer Marketing*.
- Swaminathan V, Lepowska WE, Rao BP (1999). Browsers or buyers in cyberspace? An investigation of factors influencing electronic exchange. J. Comput. Mediated Commun., 5, 208-221.
- 31. Venkatesh, V. and Morris, M.G. (2000). Why don't men ever stop to ask for directions? Gender, social influence and their role in technology acceptance and usage behaviour. *MIS Quarterly*, 24(1), 115-139.
- 32. Weiser, Eric B. (2000). Gender Differences in Inter Use Patterns and Internet Application Preferences. *Cyber Psychology and Behavior*, 3, 167-178.
- 33. Yang, B. and Lester, D. (2003). Attitudes Toward Buying Online. Cyberpsychology and Behavior, 7(1), 85-92.
- Zhou, L., Chiang, W. Y. and Zhang, D. (2004). Discovering Rules for Predicting Customers' Attitude Toward Internet Retailers. *Journal of Electronic Commerce Research*, 5(4), 228-238.

## APPENDIX

Table 1: Difference in the Perception of Male and Female Consumers regarding Online Shopping

# Independent Samples Test

		for Eq	's Test ality of ances	t-test for Equality of Means						
		F Sig.	Sig.	t	df	Sig. (2- tailed)	Mean Diffe-	Std. Error Diffe-	95% Confidence Interval of the Difference	
					(ancu)	rence	rence	Lower	Upper	
Product Constituent	EVA	2.473	0.117	0.422	398	0.673	0.203	0.48	-0.741	1.147
	EVNA			0.42	383.2	0.675	0.203	0.483	-0.746	1.152
Financial Instrument	EVA	0.48	0.489	6.063	398	0	2.152	0.355	1.454	2.85
	EVNA			6.037	384.8	0	2.152	0.357	1.451	2.853
User Friendly Interface	EVA	1.704	0.192	-0.08	398	0.936	-0.022	0.278	-0.569	0.524
	EVNA			-0.08	389.2	0.936	-0.022	0.279	-0.57	0.526
Wide Accessibility	EVA	0.003	0.957	-1.137	398	0.256	-0.228	0.201	-0.622	0.166
	EVNA			-1.14	396.7	0.255	-0.228	0.2	-0.621	0.165
Risk Association	EVA	1.676	0.196	3.469	398	0.001	0.485	0.14	0.21	0.759
	EVNA			3.463	390.4	0.001	0.485	0.14	0.209	0.76
Convenience	EVA	1.119	0.291	0.726	398	0.468	0.186	0.256	-0.317	0.689
	EVNA			0.724	389.6	0.469	0.186	0.256	-0.318	0.69
Physical Touch Absence	EVA	0.216	0.643	0.191	398	0.849	0.017	0.089	-0.158	0.192
	EVNA			0.191	390.5	0.849	0.017	0.089	-0.159	0.193

Table 2. Table showing percentage of variance for different factors

Total Variance Explained

	Initia	Initial Eigenvalues			action Sur		Rotation Sums of Squared Loadings			
	Total	% of Variance	Cumu- lative %	Total	% of Variance	Cumu- lative %	Total	% of Variance	Cumu- lative %	
1	7.064	27.170	27.170	7.064	27.170	27.170	3.113	11.974	11.974	
2	2.212	8.507	35.678	2.212	8.507	35.678	2.649	10.190	22.164	
3	1.577	6.065	41.743	1.577	6.065	41.743	2.465	9.480	31.644	
4	1.474	5.670	47.413	1.474	5.670	47.413	2.436	9.369	41.013	
5	1.203	4.629	52.041	1.203	4.629	52.041	1.750	6.729	47.743	
6	1.126	4.330	56.371	1.126	4.330	56.371	1.715	6.595	54.338	
7	1.094	4.208	60.579	1.094	4.208	60.579	1.623	6.241	60.579	
8	.977	3.757	64.335							
9	.835	3.212	67.548							
10	.776	2.985	70.533							
11	.745	2.865	73.397							
12	.701	2.697	76.094							
13	.685	2.636	78.730							
14	.661	2.544	81.274	l						
15	.578	2.224	83,498							
16	.547	2.104	85.603							
17	.523	2.011	87.614							
18	.468	1.801	89.415	_						
19	.442	1.700	91.116							
20	.413	1.589	92.705							
21	.387	1.488	94.193							
22	.361	1.390	95.582							
23	.336	1.293	96.876							
24	.298	1.144	98.020							
25	.263	1.012	99.032							
26	.252	.968	100.000							

Table 3. Tables showing description of Skewness and Kurtosis

	N	Mini- mum	Maxi- mum	Mean	Std. Devia- tion	Skewness		Kurtosis	
	Stati- stic	Stati- stic	Stati- stic	Stati- stic	Stati- stic	Stati- stic	Std. Error	Stati- stic	Std. Error
Product Constituent	400	11	35	27.33	4.792	470	.122	.237	.243
Financial Instrument	400	16	32	22.98	3.701	.214	.122	925	.243
User Friendly Interface	400	3	15	10.37	2.773	052	.122	334	.243
Wide Accessibility	400	7	15	12.78	2.004	513	.122	612	.243
Risk Association	400	6	10	8.03	1.124	326	.122	660	.243
Convenience	400	9	20	15.90	2.553	032	.122	536	.243
Physical Touch Absence	400	2	5	4.03	.889	553	.122	547	.243

Table 4. Tables showing description of Mean values and Std. Deviation **Group Statistics** 

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Product Constituent	Male	210	27.42	4.570	.315
	Female	190	27.22	5.036	.365
Financial Instrument	Male	210	24.00	3.398	.234
	Female	190	21.85	3.702	.269
User Friendly Interface	Male	210	10.36	2.710	.187
	Female	190	10.38	2.848	.207
Wide Accessibility	Male Female	210 190	12.67 12.89	2.043 1.957	.141
Risk Association	Male Female	210 190	8.14 7.89	1.209 1.008	.083
Convenience	Male	210	15.99	2.497	.172
	Female	190	15.80	2.617	.190
Physical Touch Absence	Male	210	4.04	.874	.060
	Female	190	4.02	.908	.066

Table 5. Tables showing description of various demographic variables

	India	USA	Total
Male	123	87	210
Female	125	65	190
Total	248	152	400