

PREDICTORS OF ONLINE CONSUMER BEHAVIOR

Nishant V. Vachhani*, Sanjay Bhayani**

Abstract *Customers are no more common for industries. They are available online as well as offline. Almost a decade back, customers used to purchase physically. Now-a-days, their level of awareness regarding the applicability of internet is enhanced. Now, they are habituated to surf an internet to satisfy their categorical needs. Customers are purposive and know the benefits of an internet. But question is, would they like to have the adequate trust on the various applications of an internet. Are they satisfied? Are they aware? Are they safe? There are so many questions arising in our mindset. Main motto is to know whether the various predictors like gender, age, income, qualification, work experience, residence, price, quality, time affect to the online customer purchasing. All customers have the differences in availing services of an internet. There are many ISP (Internet Service Providers) which offers wired as well as wireless internet connections to the customers. All customers have different views regarding the selection of a specific ISP. Online customer accesses internet for the services like email, news, stock market, games, songs, videos, movies etc. Based on their varied interests, they define their goal of purchasing. Sometimes, accessibility on an internet depends over the most likely-able internet facilitators like web browser, internet speed, Wi-Fi etc. Ultimately, B2C Model – businesses need to understand all these points to justify the desires of colorful customers.*

Keywords: *ISP (Internet Service Provider), Wireless, Web browser, WI-FI (Wider Fidebility), B2C (Business-to-Customer).*

INTRODUCTION

Internet is locally available global platform. Internet is the world's biggest information mammoth to provide A-Z details in the form of mainly B2C, B2B & C2C Models. If customers purchase online, they can save time, money & efforts. Simultaneously consumption of fuel, polythene carry bag, noise pollution, traffic jam incidences could be easily overcome. There is a strong reasons how an internet is not only convenience, a part of green innovation too. We understand that online purchase experience never offer real sense & touch like physical one. But gradually, we realize online marketers exceptionally doing well for customers. How long queues at banks were wiped out, because of online banking & ATMs. Why our relatives not waiting for posted letters, because of email. Why customers are paying less, because of transparent online prices. Why customers can purchase at any time, because of 24 x 7 hours, 365 days a year internet access. How customers remain updated, because of WI-FI & GPRS enabled latest e-gadgets. How customers clarify any doubts quickly, because of online FAQ section. There are many other numerous valid reasons to have an internet all the way.

LITERATURE REVIEW

As revealed by review of existing empirical studies that consumers have multiple concerns which influence their

behavior. Fears and concerns influence online consumers' purchasing decisions and are relevant in their decision process (Kovar et al. 2000 & Cranor et al. 1999).

Hoffman and Novak (1998) focused on the impact of demographics, and highlight inequities of Internet access based on race and gender. Sorce et al. (2005) looked at age and found 'while older shoppers search for significantly fewer products that their younger counterparts they actually purchase as much as the younger consume'. More specifically, The National Statistics Office (UK) (2005) identified that people aged 25-44 were most likely to buy online (63%), while people aged 65 and over least likely to buy online (41%).

Price, Service quality, Delivery assurance, On-line ordering ease, and vendors trust are important factors for consumers considering online purchases that will increasingly determine their propensity to engage in e-commerce (Goldman Sachs, 2001). The seven identified consumer concerns about making online purchases are transaction security, Support of customer, Product quality, legitimacy of firm selling product/service, price, privacy, and documentation (Odom, Marcus D.; Kumar, Anand; Saunders, Laura, 2002). Yang, Zhilin & Jun, Minjoon, (2002) identified six primary dimensions perceived by Internet purchasers and they are personalization, reliability, access, ease of use, availability, security, and responsiveness (Literature review referenced from <http://www.ou-mba.ac.in/i/15.pdf>)

*Assistant Professor, Department of Management, AITS, Rajkot, Gujarat, India

**Professor, Department of Business Management, Saurashtra University, Rajkot, Gujarat, India

Objectives of The Study

- To know whether gender is independent of online purchase.
- To know whether an age is independent of the mode of purchase (online/in person).
- To know whether qualification is independent of internet hours.
- To know whether an occupation is independent of online purchase frequency.
- To know whether residential area is independent of the medium for internet.
- To know whether work experience is independent of internet consumption.

RESEARCH METHODOLOGY

Sample Design

The sampling frame consists of 100 consumers from the Rajkot District, the developed District of Gujarat State, India. The Rajkot district is one of the largest and most developed in the Gujarat and is fast emerging economy of Gujarat.

Since the focus of this study is on different attitudes and perceptions about online purchasing, only Internet savvy respondents are considered.

Data Collection Methods

The primary data collected was based on questionnaire designed exclusively for the study. Secondary data was gathered from Research articles, Periodicals, Magazines and Websites.

Questionnaire Development

Questionnaire was developed after an extensive review of literature on Internet commerce. It has two parts. Part I questions general information about respondents' backgrounds. Part II contains question related to attitudes and perceptions. Total numbers of 34 close ended questions have been asked to each respondent from the questionnaire. The respondents were requested to mark each of the scale items on a Likert point scale, where 1 = strongly disagree (not important at all) and 5 = strongly agree (extremely important). Questionnaires were administered in English to customers near office premises, shopping malls, colleges and Internet centers.

A pilot survey was conducted with 25 respondents, relatively small to arrive at the twelve factors that customer feels are significant and also to understand the degree to which

respondents understand the questions.(Reference from <http://www.ou-mba.ac.in/i/15.pdf>)

HYPOTHESIS

1. H₀: Gender is an independent of online purchase.
2. H₀: Age is an independent of the mode of online purchase.
3. H₀: Qualification is an independent of online purchase hours.
4. H₀: Occupation is independent of online purchase frequency.
5. H₀: Residential area is an independent of internet medium.
6. H₀: Experience is an independent of internet access.

STATISTICAL ANALYSIS & RESULTS

The Statistical Package for the Social Sciences (SPSS) version 14.0 was used to analyze the data. Out of 100 respondents, 72% are male and 28% are female. Table 1(a) and Chart 1 represent statistics about the surveyed gender data. Table 1(b) & 1(c) represents chi-square analysis. Research data shows χ^2_{cal} is less than χ^2_{tab} . So, null hypothesis H₀ is accepted, means gender is an independent factor for an online purchasing mode.

Table 1(a): Gender Detail

Male	Female	Total
72	28	100

Chart 1: Gender Detail

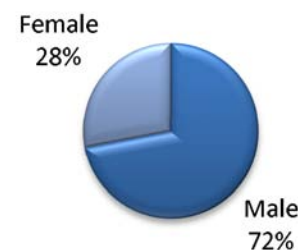


Table 1(b): Chi-square Analysis

Gender	Online purchase		
	Yes	No	Total
Male	40	32	72
Female	10	18	28
Total	50	50	100

Table 1(c): Chi-square Analysis

O _i	E _i	O _i -E _i	(O _i -E _i) ²	(O _i -E _i) ² /E _i
40	36	4	16	0.44
32	36	-4	16	0.44
10	14	-4	16	1.14
18	14	4	16	1.14
			χ^2_{cal}	3.16

$\chi^2_{tab} = 3.84146$

d.f. =(r-1)(c-1)=(2-1)(2-1)=1

α=5%

Out of 100 respondents, 21% respondents belong to the age group of less than 25 years, 41% belong to the age group of 25 to 35 years, 33% belong to the age group of 35 to 45 years, and 5% belong to the age group of more than 45 years. Table 2(a) and Chart 2 represent statistics about the surveyed age group data. Table 2(b) & 2(c) represents chi-square analysis. Research data shows χ^2_{cal} is less than χ^2_{tab} . So, null hypothesis H₀ is accepted, means age is an independent factor for an online purchasing mode.

Table 2(a): Age Detail

<25	25 TO 35	>35 TO 45	>45
21	41	33	5

Chart 2: Age Detail

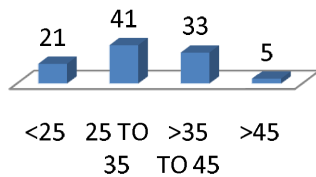


Table 2(b): Chi-square Analysis

Age	Online purchase		
	Yes	No	Total
<25	15	6	21
25-35	25	16	41
>35-45	22	11	33
>45	1	4	5
Total	63	37	100

Table 2(c): Chi-square Analysis

O _i	E _i	O _i -E _i	(O _i -E _i) ²	(O _i -E _i) ² /E _i
15	13.23	1.77	3.1329	0.23
6	7.77	-1.77	3.1329	0.40
25	25.83	-0.83	0.6889	0.02
16	15.17	0.83	0.6889	0.04
22	20.79	1.21	1.4641	0.07
11	12.21	-1.21	1.4641	0.11
1	3.25	-2.25	5.0625	1.55
4	1.85	2.15	4.6225	2.49
			χ^2_{cal}	4.91

$\chi^2_{tab} = 7.81473$

d.f. =(r-1)(c-1)=(4-1)(2-1)=3

α=5%

Out of 100 respondents, 53% respondents studied up to graduation, 39% respondents studied up to post graduation, 4% respondents studied up to Ph.D., and 4% respondents studied other courses. Table 3(a) and Chart 3 represent statistics about the surveyed qualification data. Table 3(b) & 3(c) represents chi-square analysis. Research data shows χ^2_{cal} is less than χ^2_{tab} . So, null hypothesis H₀ is accepted, means qualification is an independent factor for an online purchasing mode.

Table 3: Qualification Detail

Graduation	Pg	Ph.D.	Other
53	39	4	4

Chart 3: Qualification Detail

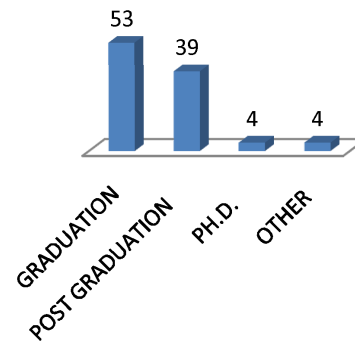


Table 3(b): Chi-square Analysis

Qualification	Online purchase		
	Yes	No	Total
Graduation	23	30	53
Post Graduation	18	21	39
Ph.D.	3	1	4
Other	2	2	4
Total	46	54	100

Table 3(c): Chi-square Analysis

O _i	E _i	O _i -E _i	(O _i -E _i) ²	(O _i -E _i) ² /E _i
23	24.38	-1.38	1.9044	0.07
30	28.62	1.38	1.9044	0.06
18	17.94	0.06	0.0036	0.01
21	21.06	-0.06	0.0036	0.01
3	1.84	1.16	1.3456	0.73
1	2.16	-1.16	1.3456	0.62
2	1.84	0.16	0.0256	0.01
2	2.16	-0.16	0.0256	0.01
			χ^2_{cal}	1.52

$\chi^2_{tab} = 7.81473$

d.f. = (r-1)(c-1) = (4-1)(2-1) = 3

$\alpha = 5\%$

Out of 100 respondents, 52% respondents are in service, 17% respondents are professionals, 17% respondents are manufacturer, 10% respondents are traders and 4% respondents doing other than this. Table 4(a) and Chart 4 represent statistics about the surveyed qualification data. Table 4(b) & 4(c) represents chi-square analysis. Research data shows χ^2_{cal} is less than χ^2_{tab} . So, null hypothesis H₀ is accepted, means occupation is an independent factor for an online purchasing mode.

Table 4(a): Occupation Detail

Service	Professional	Manu.	Trader	Other
52	17	17	10	4

Chart 4: Occupation Detail



Table 4(b): Chi-square Analysis

Occupation	Online purchase		
	Yes	No	Total
service	23	29	52
professional	6	11	17
Manufacturer	8	9	17
Trader	4	6	10
Other	1	3	4
Total	42	58	100

Table 4(c): Chi-square Analysis

O _i	E _i	O _i -E _i	(O _i -E _i) ²	(O _i -E _i) ² /E _i
23	21.84	1.16	1.3456	0.06
29	30.16	-1.16	1.3456	0.04
6	7.14	-1.14	1.2996	0.18
11	9.86	1.14	1.2996	0.13
8	7.14	0.86	0.7396	0.10
9	9.86	-0.86	0.7396	0.07
4	4.2	-0.2	0.04	0.01
6	5.8	0.2	0.04	0.01
1	1.68	-0.68	0.4624	0.27
3	2.32	0.68	0.4624	0.19
			χ^2_{cal}	1.06

$\chi^2_{tab} = 9.48773$

d.f. = (r-1)(c-1) = (5-1)(2-1) = 4

$\alpha = 5\%$

Out of 100 respondents, 58% respondents are from urban area, 26% respondents are from semi urban area, and 16% respondents are from rural area. Table 5(a) and Chart 5 represent statistics about the surveyed residential area data. Table 5(b) & 5(c) represents chi-square analysis. Research data shows χ^2_{cal} is higher than χ^2_{tab} . So, null hypothesis H₀ is rejected, means residential area is a dependent factor about the use of internet medium where type of internet access is affected by the residential area.

Table 5(a): Residential Detail

Urban	Semi Urban	Rural
58	26	16

Chart 5: Residential Detail

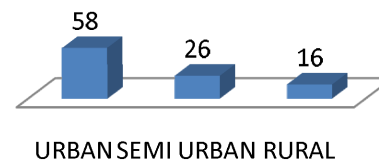


Table 5(b): Chi-square Analysis

Residential Area	Internet Medium		
	Wired	Wireless	Total
Urban	18	40	58
Semi Urban	15	11	26
Rural	10	6	16
Total	43	57	100

Table 5(c): Chi-square Analysis

O _i	E _i	O _i -E _i	(O _i -E _i) ²	(O _i -E _i) ² /E _i
18	24.94	-6.94	48.1636	1.93
40	33.06	6.94	48.1636	1.45
15	11.18	3.82	14.5924	1.30
11	14.82	-3.82	14.5924	0.98
10	6.88	3.12	9.7344	1.41
6	9.12	-3.12	9.7344	1.06
			χ^2_{cal}	8.13

$\chi^2_{tab} = 5.99146$

$d.f. = (r-1)(c-1) = (3-1)(2-1) = 2$

$\alpha = 5\%$

Out of 100 respondents, 13% respondents are having experience of 0 to 1 year, 32% respondents are having experience of >1 to 2 years, 32% respondents are having experience of >2 to 3 years, 15% respondents are having experience of >3 to 4 years, and 8% respondents are having experience of greater than 4 years. Table 6(a) and Chart 6 represent statistics about the surveyed experience data. Table 6(b) & 6(c) represents chi-square analysis. Research data shows χ^2_{cal} is less than χ^2_{tab} . So, null hypothesis H₀ is accepted, means work experience is an independent factor for an online purchasing mode.

Table 6(a): Experience Detail

0 to 1	>1 to 2	>2 to 3	> 3 to 4	>4
13	32	32	15	8

Chart 6: Experience Detail

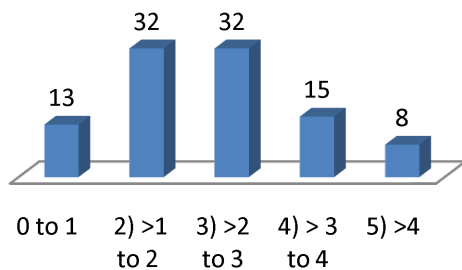


Table 6(b): Chi-square Analysis

Experience	Internet Access		Total
	Yes	No	
0 to 1	8	5	13
>1 to 2	23	9	32
>2 to 3	25	7	32
>3 to 4	9	6	15
>4	6	2	8
	71	29	100

Table 6(c): Chi-square Analysis

O _i	E _i	O _i -E _i	(O _i -E _i) ²	(O _i -E _i) ² /E _i
8	9.23	-1.23	1.5129	0.16
5	3.77	1.23	1.5129	0.40
23	22.72	0.28	0.0784	0.01
9	9.28	-0.28	0.0784	0.01
25	22.72	2.28	5.1984	0.22
7	9.28	-2.28	5.1984	0.56
9	10.65	-1.65	2.7225	0.25
6	4.35	1.65	2.7225	0.62
6	5.68	0.32	0.1024	0.01
2	2.32	-0.32	0.1024	0.04
			χ^2_{cal}	2.18

$\chi^2_{tab} = 9.48773$

$d.f. = (r-1)(c-1) = (5-1)(2-1) = 4$

$\alpha = 5\%$

CONCLUSIONS

Marketing trends all over the world show a shift from a purely traditional store format to a mix of both physical and virtual stores. An important part of the gamut of services that a marketer has to offer is through the Internet. The number of people using the Internet as a medium to transact is growing exponentially the world over, and India is no exception. Today, access to products and services is facilitated through global technological networks. A wide assortment of goods and services can be accessed and compared with regard to attributes, features, and price, thereby affecting purchase decisions favorably.

It has become imperative that business organizations re-orient their businesses to the new market paradigm. This paper looks into critical success factors in online retailing from a customer’s perspective, since long-term success and survival depend on customer satisfaction. Ease of navigation, quick loading times, and an accurate product/service delivery system were identified as drivers of the online retail system. Ease of navigation implies simplicity in use during the online shopping process, which can be facilitated by better Internet connectivity and improved website design and appearance. Speed, loading, navigation, and all such aspects of computer technology are important and affect ease of use. The quantity, relevance, and authenticity of information provided regarding the product/service are essential. The delivery system should also be prompt and error free.

Clear transaction policies, online interactivity between buyer and seller, transaction safety, and transaction privacy were identified as facilitators/enablers of the online retail system.

The retailer's Web site acts as a platform for interaction between an online retailer and a buyer. The audiovisual impact of the web site and its product or service is crucial for effective performance, both for functional and hedonic benefits. Web site design elements and aesthetics, the audiovisual impact, and customization affect consumer psychographics and consumer interest in buying online. The retailer should provide details about the product/service alternatives available, features, and price, as well as information about delivery schedules, warranty services, return and exchange policies, post-sales service, and related technical support. Establishing, communicating, and maintaining customer trust and confidence on issues of personal information are critical to an online retail business. The retailer should strive to cultivate customer feelings of safety, security, and trust in the system. The retailer, for example, may encourage customers to make a trial purchase initially, with the goal of securing a repeat purchase if the customer is satisfied. A simple and unambiguous purchase transaction process was identified as a major driver, which will necessarily impact the facilitators and the dependents. Customers are often apprehensive and wary of shopping online because of computer illiteracy, technological complexity, or a lack of understanding of the buying/transaction process via the Internet. A customer should be able to search the Web and transact with ease.

REFERENCES

- AT & TLabs-Research Technical Report TR 99.4.3. Retrieved from <http://www.research.att.com/project/privacystudy>.
- Balfour, A., Farquhar, B. & Langmann, G. (1998). The Consumer Needs in Global Electronic Commerce. *Electronic Markets*, 8(2), pp. 9 - 12.
- Corbitt, B. J., Thanasankit, T., & Yi, H. (2003). Trust and E-Commerce: A Study of Consumer Perceptions. *Selected Papers from the Pacific Asia Conference on Information Systems*, 2(3), pp. 203 - 215.
- Cranor, L. F., Reagle, J. & Ackerman, M. S. (1999). Beyond Concern: Understanding Net Users' Attitude about Online Privacy.
- Chaffey, D., Ellis, C. F., Johnston, K., & Mayer, R. (2009). *Internet Marketing*, New Delhi: Pearson.
- CPA Web Trust Assurance. *Journal of Information Systems*, 14(1), pp. 17 - 35.
- Davis, F. D. (1989). Perceived Usefulness, Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), pp. 319 - 340.
- Goldman, S. (2000). *B2B & Internet Infrastructure Software: United States: The New York Public Library*.
- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in Online Shopping: An Integrated Model. *MIS Quarterly*, 27(1), pp. 51 - 90.
- Hanson, W., & Kalyanam, K. (2009). *E-Commerce and Web Marketing*. New Delhi: Cengage Learning.
- Hoffman, D. L. & Novak, T. P. (2009). Flow Online: Lessons Learned and Future Prospects. *Journal of Interactive Marketing*, 23(1), pp. 23 - 34.
- Hoffman, D. L. & Novak, T. P. (1996). Perspectives: The Future of Interactive Marketing. *Harvard Business Review*, November-December, 74, pp. 161.
- Jarvenpaa, S. L. & Todd, P. A. (1997). Consumer Reactions To Electronic Shopping on the World Wide Web. *International Journal of Electronic Commerce*, 2, pp. 59-88.
- Jedd, M. (2000). Sizing Up Home Delivery. *Logistics Management & Distribution Report*, pp. 51.
- Kalakota, Dr. R., and Robinson, M. (2009). *E-Business 2.0*. New Delhi: Pearson Education, Inc.
- Kovar, S. E., Burke, K. G. & Kovar, B. R. (2000). Consumer Responses to the
- Kim, D. J., Song, Y. I., Braynov, S.B. & Rao, H. R. (2005). A Multidimensional Trust Formation Model in B-to C E-Commerce: A Conceptual Framework and Content Analyses of Academia/Practitioner Perspectives. *Decision Support Systems*, 40, pp. 143 - 165.
- Liu, C. & Arnett, K. P. (2000). Exploring the Factors Associated with Web Site Success in the Context of Electronic Commerce. *Info & Mng.*, 38(1), pp. 23 - 33.
- Rao, D. Venkoba (2006), Determinants of Purchase Behaviour of Online Consumers. *Osmania Journal of Management*
- Saunders, L., Kumar, A. & Odom, M. D. (2002). *Journal of Information Systems*, ISSN 0888-7985, 16(2), pp. 255 - 257.