# Factors Influencing Perception of Different Age Groups Towards Online Shopping

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## Abstract

The Internet and Mobile apps are dominating market. Slowly they are replacing the Physical domain of market.Online shopping is becoming common in today's life. Customer believes that online shopping is a better option than manual shopping still they have belief that online shopping is expensive, delayed in delivery of products and service. Also customer's most alarming barrier for online shopping are unable to verify product personally and online payment security. The spectrum of consumers varies from youth born in smart phones era to old and retired with their savings at disposal. This paper aims to identify major factors which influences the online shopping and perception of different age groups towards identified factors. The sample of 120 respondents was taken from Nashik city. The paper discusses identified factors and differences in various age groups about these factors.

## Introduction

The e-commerce has transformed the way business is done in India. The Indian e-commerce market is expected to grow to US$ 200 billion by 2026 from US$ 38.5 billion as of 2017. Much growth of the industry has been triggered by increasing internet and smartphone penetration. The ongoing digital transformation in the country is expected to increase India's total internet user base to 829 million by 2021 from 560.01 million as of September 2018. India's internet economy

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is expected to double from US$125 billion as of April 2017 to US$ 250 billion by 2020, majorly backed by ecommerce. India's E-commerce revenue is expected to jump from US$ 39 billion in 2017 to US$ 120 billion in 2020, growing at an annual rate of 51 per cent, the highest in the world.

Online retail sales in India are expected to grow by 31 per cent to touch US$ 32.70 billion in 2018, led by Flipkart, Amazon India and Paytm Mall.

During 2018, electronics is currently the biggest contributor to online retail sales in India with a share of 48 per cent, followed closely by apparel at 29 per cent (ibef.org)

Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. Consumers find a product of interest by visiting the website of the retailer directly or by searching among alternative vendors using a shopping search engine, which displays the same product's availability and pricing at different e-retailers. Online store enables the customer to browse/search the products and services and other information of company's offerings.

The advances in online shopping are credited to number of factors like interactive Web pages and secure transactions. Though  marketing around the digital environment, customer's buying behavior may not be influenced and controlled by the brand and firm, when they make a buying decision that might concern the interactions with search engine, recommendations, online reviews and other information. Usage of mobile phones, computers, tablets and other digital devices to gather information has further fueled growth of online business. Risk and trust are two important factors affecting people's' behavior in digital environments. Customer consider to switch between e-channels, because they are mainly influence by the comparison with offline shopping, involving growth of security, financial and performance-risks In other words, a customer shopping online that they may receive more risk than people shopping in stores. There are three factors may influence people to do the buying decision, firstly, people cannot examine whether the product satisfy their needs and wants before they receive it. Secondly, customer may concern at after-sale services. Finally, customer may afraid that they cannot fully understand the language used in e-sales. Based on those factors customer perceive risk may as a significantly reason influence the online purchasing

**Literature Review**

The perception of customer is formed during his product purchase decision. Consumer decision process carries five stages, starting with Problem recognition and following Information search, Evaluation of alternatives, Purchase decision and finally Post Purchase behavior ( Kotler)

Literature available on online shopping and perception discusses at length about faith, risk and demographic factors influencing shopping behaviour. Belanger, Hiller, & Smith, (2002) found that consumers faith on online merchants is low and they are not interested in online purchases. The absence of actual seller and market results in doubt over online markets.

Aggarwal (2013) found that online shopping is directly affected through various factors like age, gender, education and income and shows that there is strong relationship between age and attitude towards online shopping. Younger people are more comfortable with online purchases. Baker, Levy, and Grewal (1992) found that major factors influencing online purchases could be attributed to vendor knowledge, responsiveness and reliability. Research work by Jarvenpaa and Todd(1997) found Internet purchases of tangible goods online in comparison to brick and mortar retail store is less preferred as physical inspection of goods is limitation

Gabriel j. Isaac (2007) the studied found that risk is very important factor in online shopping. Hasan and Rahim (2004) discusses risk factor in online purchase as shopping environments on the internet may be uncertain. They identified major perceived risk as financial, product performance, social, psychological and time/ convenience loss.

Financial risk stems from paying more for a product than being necessary or not getting enough value for the money spent (Roehl and Fesenmaier 1992).

**Objectives**

1. To identify factors influencing online shopping
2. To understand difference in perception of age groups for identified factors.

**Research Methodology**

The descriptive research was done in this research work. The primary data was collected using self-designed and self-administered. instrument containing nine items on scale of five i.e strongly

agree (5) agree (4) neutral (3) disagree(2) strongly disagree (1). The respondents were asked to rate each item on above five points.

The primary data was collected from 120 respondents in nashik with the following Profile

Table 1 : Respondents Profile

| Category ( Age group) | Number of Respondent |
|---|---|
| 15-25 | 30 |
| 26-35 | 32 |
| 36-45 | 29 |
| Above 46 | 29 |

Convenient sampling method was used for collecting data.Data was analyzed in two parts. Initially factors affecting behavior were identified by using factor analysis. In later stage the difference in various age groups for identified factors was found out using one way ANOVA. For the analysis part SPSS software was used.

**Results**

To explore factors and dimensions from a scale of 9 items related to online shopping behaviour, a multi-stage factor analysis using Principal Component Method of Factor Analysis with Varimax rotation was applied. Exploratory factor analysis is generally applied when interest lies in exploring the underlying factors/dimensions that could have caused correlations among the observed variables/items (Gaur et al., 2006).

On the basis of factor analysis three factors emerged which are as follows:

1) Factor 1 – Shopping Orientation containing four items
2) Factor 2 – Serviceability containing three items
3) Factor 3 – Convenience Shopping two items

The details are given below in table 2

Table 3 gives details of KMO and Bartletts test. KMO value was 0.632 which indicates adequacy of sample and Bartletts value of 0 indicates no identify matrix is created and hence data is suitable for factor analysis.

Variance Explained is given in Table 5 and Item load is given in Table 6.

The second objective 'To understand difference in perception of age groups for identified factors' was studied by forming the following hypothesis:

H01: There is no significant difference in perception of  age groups for factor shopper orientation

H02: There is no significant difference in perception of age groups for factor Serviceability

H03: There is no significant difference in perception of age groups for factor Convenience Shopping

The above hypothesis were tested using One way ANOVA. The age group of respondent was considered as independent variable and factors influencing online shopping were considered as dependent variables. Means of responses for items included in each factor were taken for testing of hypothesis. These means of different age group were compared (table 7) . For comparing pairs of different age groups namely 1 and 2, 1 and 3 , 1 and 4, 2and 3, 2 and 4 and 3& 4, Post-hoc analysis method Tukey HSD was used. The results of Tukey HSD are given in table  8

On the basis of tables 7 &8 :

$H_{01}$ is not rejected  (p>=.05) . There was no significant difference observed in age groups on factor shopper orientation. (The p value was 0.125 which was more than 0.05 )

H $_{02}$ stands rejected (p<=.05). The p value was 0.000. hence the shopper of different age groups perceive the dimensions serviceability differently. Post hoc method tukey further reveals the difference in various age group as can be observed in table 8 (multiple comparison). The table indicates the difference between perception of age group 1&3, 1&4, 2&3, 2&4.

H $_{03}$ stands rejected (p<=.05). The p value was 0.000. hence the shopper of different age groups perceive the dimensions convenience shopping differently. Post hoc method tukey further reveals

the difference in various age group as can be observed in table (multiple comparison). The table indicates the difference between perception of age group 1&4.

**Discussion**

Shopper Orientation

In this following factor called shopper orientation the main key points to focus on was on privacy, convenience, cost efficient and reputation. All age groups assigned equal importance to these factors while availing online services. It is obvious that any consumer will pay weightage to these factors as it will result in optimising his benefits.

Serviceability

Factor 2 which was serviceability was based on the characteristics as easy online payment, website information and various promotions offered.

The younger age group are well versed and involved with modern apps and IT tools. The senior group is finding difficult to avail online services available. In this factor major differences were observed. People in younger age bracket ( around 40) found online shopping with great serviceability.

Convenience Shopping

Factor 3 is convenience shopping which mainly offers the following key point's vast range, variety, options and traditional vs online shopping.

Age group 4 comprises of the oldest age people therefore most of them do not agree that online shopping will supersede traditional shopping.

Age group 1, 2 and 3 strongly agree that they shop due to the vast options and variety provided online and get almost everything they need online.

Implications

The internet growth has captured retail market and people of all age groups are using internet for online shopping. The serviceability is most important factor influencing online purchase. Shoppers are looking for Easiness, Information and Discounts. This indicates reason of major

websites such as Paytm, TrueCaller, Amzon are offering huge discounts along with easy and secure transactions. These portals are also loaded with good information about product and services.

**Conclusion**

The three factors identified are Shopping Orientation, Serviceability and Convenience Shopping. Of these three factors on the basis of ANOVA serviceability was the factor where major differences in perception of age group was observed. The emphasis on serviceability factors will help organizations in capturing market. The intense competition of market can be met only with Serviceability as other offerings are same by all competitors. The company which can think of serving better people of old age will be successful in capturing market.

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**Table 2: Factors Influencing Online Shopping**

| Name of factor | Variance explained* | Item Description | Item Load** |
|---|---|---|---|
| Shopping Orientation | 35.126 | I shop online as I can shop in the privacy of my home. | .832 |
| | | Online shopping has a price advantage as it is more cost efficient | .756 |
| | | I tend to shop online as it is very convenient and easy to use. | .753 |
| | | Online brand has a good reputation and value in the market. | .650 |
| Serviceability | 19.691 | I generally have no trouble while doing online payment transactions | .818 |
| | | The websites of online brand provides me with all information required for shopping online. | .652 |
| | | I prefer buying online due to various promotions offered. | .638 |

| Convenience Shopping | 12.038 | I get inclined to buy products online due to its vast range, variety and options available. | .848 |
| | | I believe online shopping will eventually supersede traditional shopping. | .834 |

Table 3: KMO and Bartlett's Test

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .632 |
|---|---|---|
| Bartlett's Test of Sphericity | Approx. Chi-Square | 359.505 |
| | Df | 36 |
| | Sig. | .000 |

Table 4: Communalities

|  | Initial | Extraction |
|---|---|---|
| VAR00001 | 1.000 | .419 |
| VAR00002 | 1.000 | .716 |
| VAR00003 | 1.000 | .616 |
| VAR00004 | 1.000 | .619 |
| VAR00005 | 1.000 | .738 |
| VAR00006 | 1.000 | .757 |
| VAR00007 | 1.000 | .642 |
| VAR00008 | 1.000 | .778 |
| VAR00009 | 1.000 | .730 |

Extraction Method: Principal Component Analysis.

Table 5: 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 | 3.161 | 35.126 | 35.126 | 3.161 | 35.126 | 35.126 | 2.412 | 26.803 | 26.803 |
| 2 | 1.772 | 19.691 | 54.817 | 1.772 | 19.691 | 54.817 | 1.857 | 20.635 | 47.439 |
| 3 | 1.083 | 12.038 | 66.855 | 1.083 | 12.038 | 66.855 | 1.747 | 19.417 | 66.855 |
| 4 | .881 | 9.794 | 76.650 | | | | | | |
| 5 | .716 | 7.956 | 84.606 | | | | | | |
| 6 | .516 | 5.732 | 90.338 | | | | | | |
| 7 | .390 | 4.330 | 94.668 | | | | | | |
| 8 | .258 | 2.871 | 97.538 | | | | | | |
| 9 | .222 | 2.462 | 100.000 | | | | | | |

Extraction Method: Principal Component Analysis.

Table 6 :Rotated Component Matrixindicating item load

| | Component | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| VAR00005 | .832 | -.209 | -.055 |
| VAR00007 | .756 | .247 | .099 |
| VAR00006 | .753 | .423 | -.105 |
| VAR00003 | .650 | .075 | .434 |
| VAR00002 | -.072 | .818 | .204 |
| VAR00004 | .343 | .652 | .276 |
| VAR00001 | .100 | .638 | .050 |
| VAR00008 | -.079 | .229 | .848 |
| VAR00009 | .145 | .119 | .834 |

Extraction Method: Principal Component Analysis.

 Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Table 7: ANOVA

| | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| fac1 | Between Groups | 3.317 | 3 | 1.106 | 1.953 | .125 |
| | Within Groups | 65.674 | 116 | .566 | | |
| | Total | 68.992 | 119 | | | |
| fac2 | Between Groups | 11.914 | 3 | 3.971 | 8.556 | .000 |
| | Within Groups | 53.841 | 116 | .464 | | |
| | Total | 65.755 | 119 | | | |
| fac3 | Between Groups | 10.880 | 3 | 3.627 | 4.299 | .006 |
| | Within Groups | 97.867 | 116 | .844 | | |
| | Total | 108.748 | 119 | | | |

Table 8 : Multiple Comparisons

Tukey HSD

| Depen dent Variab le | (I) age | (J) age | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|---|
| | | | | | | Lower Bound | Upper Bound |
| fac1 | 1 | 2 | .31042 | .16264 | .230 | -.1135 | .7344 |
| | | 3 | .02904 | .23474 | .999 | -.5829 | .6409 |
| | | 4 | -.13827 | .19966 | .900 | -.6587 | .3822 |
| | 2 | 1 | -.31042 | .16264 | .230 | -.7344 | .1135 |
| | | 3 | -.28138 | .24176 | .651 | -.9116 | .3488 |
| | | 4 | -.44868 | .20786 | .141 | -.9905 | .0931 |
| | 3 | 1 | -.02904 | .23474 | .999 | -.6409 | .5829 |
| | | 2 | .28138 | .24176 | .651 | -.3488 | .9116 |
| | | 4 | -.16731 | .26806 | .924 | -.8661 | .5314 |
| | 4 | 1 | .13827 | .19966 | .900 | -.3822 | .6587 |
| | | 2 | .44868 | .20786 | .141 | -.0931 | .9905 |
| | | 3 | .16731 | .26806 | .924 | -.5314 | .8661 |
| fac2 | 1 | 2 | .00465 | .14726 | 1.000 | -.3792 | .3885 |
| | | 3 | .82261* | .21255 | .001 | -1.3766 | -.2686 |
| | | 4 | .60850* | .18077 | .006 | -1.0797 | -.1373 |
| | 2 | 1 | -.00465 | .14726 | 1.000 | -.3885 | .3792 |
| | | 3 | -.82726* | .21890 | .001 | -1.3979 | -.2567 |
| | | 4 | .61316* | .18821 | .008 | -1.1037 | -.1226 |
| | 3 | 1 | -.82261* | .21255 | .001 | .2686 | 1.3766 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2 | .82726[*] | .21890 | .001 | .2567 | 1.3979 |
| | | 4 | .21410 | .24271 | .814 | -.4186 | .8468 |
| | 4 | 1 | -.60850[*] | .18077 | .006 | .1373 | 1.0797 |
| | | 2 | -.61316[*] | .18821 | .008 | .1226 | 1.1037 |
| | | 3 | -.21410 | .24271 | .814 | -.8468 | .4186 |
| fac3 | 1 | 2 | -.12943 | .19855 | .915 | -.6470 | .3881 |
| | | 3 | -.73469 | .28656 | .056 | -1.4817 | .0123 |
| | | 4 | -.70969[*] | .24373 | .022 | -1.3450 | -.0744 |
| | 2 | 1 | .12943 | .19855 | .915 | -.3881 | .6470 |
| | | 3 | -.60526 | .29513 | .176 | -1.3746 | .1640 |
| | | 4 | -.58026 | .25374 | .107 | -1.2417 | .0812 |
| | 3 | 1 | .73469 | .28656 | .056 | -.0123 | 1.4817 |
| | | 2 | .60526 | .29513 | .176 | -.1640 | 1.3746 |
| | | 4 | .02500 | .32724 | 1.000 | -.8280 | .8780 |
| | 4 | 1 | .70969[*] | .24373 | .022 | .0744 | 1.3450 |
| | | 2 | .58026 | .25374 | .107 | -.0812 | 1.2417 |
| | | 3 | -.02500 | .32724 | 1.000 | -.8780 | .8280 |

*. The mean difference is significant at the 0.05 level.