

Consumer Online Purchase Decision and its Influencers in Uttarakhand: A Factor Analysis Method

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Abstract: Research on various factors affecting web based purchasing behaviour has garnered a lot of attention over the last decade. This is largely because of tremendous growth of online shopping in India. As per a Google India report titled "Year in Search" there will be more than 650 million Indians on the web. Along these lines, Owing to this enormous development, the given examination centers around dismembering factors influencing client's electronic purchasing choice in chosen locale of Garhwal division of Uttarakhand. The information for this investigation was accumulated utilizing direct overview with the assistance of an organized poll. The respondents having earlier web based shopping experience were chosen from various locale of Garhwal Division of Uttarakhand. A 550 example outline was picked for interest, yet just 500 respondents restored the filled poll inside multi month of discharging. All factors for the survey were distinguished utilizing the writing on web based shopping. The information was broke down utilizing SPSS. The measurable systems of examination that were utilized for the given investigation incorporate Factor Analysis and ANOVA for distinguishing the variables influencing web based buying method just as the effect of those components on definite buying choice. The consequences of this investigation show that significantly 5 variables influence the internet buying choice to be specific Convenience, Security and Privacy, Product Related Factors, Service related elements, Website related components, Personal elements .Thus, The aftereffects of this examination give an important reference to the e-advertisers to comprehend the elements impacting shopper online buy choice.

Keywords: Online shopping, Decision-making process Influence, Uttarakhand, Factor Analysis

I. INTRODUCTION

In the year 2018, Google India turned out with a broad report titled, 'Year in Search' which hurls light into the way in which Indian eats up content. Starting at 2017, India's web clients were evaluated somewhat north of 400 million. Today, that number is more like 450 million. While that number establishes under 30% of our complete populace, it is the second biggest online market after China – and it is just developing. By 2020, the "Year in Search" India report assesses in excess of 650 million Indians will be on the web. That is twofold the number of inhabitants in the United States.

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Consistently, an ever increasing number of Indians are finding the web and incorporating it into their day by day lives – to search for data, amusement, answers and everything in the middle. Thus, considering such sustainable amount of growth in Indian E-Commerce market, it becomes necessary to consider the affecting elements of online purchaser practices, to improve those components that advance online buyer buying and change the ominous variables accepting the satisfaction of client as the start point and outrageous target of publicizing rehearses. Just by giving incredible things, reasonable expenses, and finish benefits, and satisfying customers' needs, can an online market player secure more clients, increase bits of the pie, and make unprecedented focus abilities and advantages.

II. REVIEW OF LITERATURE

(Srivatsan, Vemulamanda and Venkatramana 2018) talked about different highlights and parts of E-Commerce by considering the pace of development of eight significant web based business organizations working in India from their very commencement to their till date working and along these lines examine the most recent patterns of E-Commerce in Indian economy. (Kukreti, Richa, and Singh 2018) attempted to discover the variables that significantly affect a person's purchasing conduct while making an online buy. Utilizing exploratory factor investigation he found that four factors that significantly affect web based purchasing conduct are client benefits, quick financial and verified online buy, pattern with innovation and simple availability.(Rahman et al ,2018) led an examination on an example of 160 respondents from Dhaka city in Bangladesh in order to comprehend the direct of online customers .the outcomes show that buyers shop online to spare time, and for open blends of things and associations. (Zhao 2015) Both male and female both have a practically identical sort of lead towards getting a charge out of and detesting factors; they like home development office and loathing powerlessness to contact and feel the product.(Wang and Qu 2017) attempted to think about the effect of Internet Shopping merchandise exchange on online buyer buy conduct utilizing writing survey. There are three unique components of merchandise exchange return cost, return time limit and endeavors.(Limpo, Lita & Meryana 2015).The customer's discernment towards merchandise exchange can be portrayed utilizing three measurements, for example, saw hazard, saw quality and saw reasonableness.

(Fortes and Rita 2016) endeavored to examine the effect of protection worries on a person's expectation to make online buys. He found that there exists a connection among protection and online buy expectation by means of the association among security and saw hazard, trust, saw helpfulness, saw usability and saw social control. (Kumar and Victor 2014) conducted a study on students in Lucknow aged between 18 to 25 years to find out the factors influencing online customer satisfaction. (Agarwal and Bhuvanewari 2016) conducted an empirical study on working class customers of Uttarakhand state about their frame of mind towards Internet shopping. They conducted the study on 300 respondents belonging to middle income class. The results of the study indicate that males show more attraction towards online shopping as compared to females. Moreover, there exists a direct connection among literacy level and frame of mind towards Internet shopping. (Katawetawaraks, Chayapa & Wang 2013). The outcomes show that web architecture, security, item assortment and value, item quality, conveyance administration, data quality, installment technique, e-administration quality emphatically impact online consumer loyalty. (Sawant and Malviya 2014) led an examination on the youth of Indore city to study the determinants of youth's perception towards online shopping. (Harahap, & Amanah. 2018). The study identified six factors such as web portal quality, Pre and post sales services, online interface usability, security and other strategy, clear payment and conveyance, trust on web portal, that affect perception of younger generation in Indore city.

III. RESEARCH OBJECTIVES

The Main Objective of the assessment is to explore and dismember factors influencing client's online purchasing choice in chosen locale of Garhwal division of Uttarakhand. The Sub Objectives of the examination are to break down socio-segment status of online customers, to recognize kinds of item classes in web based shopping that are ordinarily bought by individuals, to decide if saw security and protection of online exchange affect respondents' web based buying choice.

IV. RESEARCH METHODOLOGY

4.1 The Investigation: This examination is exploratory in nature and attempted to give a comprehension of the components prompting internet shopping. The examination is for the most part dependent on essential information used to investigate factors impacting customer's online buy choice. Time of the examination was from July, 2019 to November, 2019. The investigation contained people living in chosen locale of Garhwal division who belong to the age-group of 18-40 with prior online purchase experience.

4.2 The Sample: The sample of the investigation was comprised of 500 respondents from chosen regions of Garhwal Division.

4.3 The Tools for Data Collection: A self organized survey was utilized to gather information. The underlying section of the study included requests concerning measurement profile of respondents and Internet use affinities for the respondents, for instance, how visit they scrutinize Internet, how much time they spent, what sort of things the respondents purchase on the web and what sum do they spend on online shopping. The second bit of the survey consolidated a self - sorted out scale that was used to assemble fundamental data. The 32 close finished things of the scale depended on five point Likert scale (Strongly Agree – 5 to Strongly Disagree – 1) and used to quantify factors influencing customer's online buy choice. The unwavering quality of the scale was discovered utilizing Cronbach's Alpha.

4.4 The Tools for Data Analysis: The investigation of gathered information was finished by Statistical Package for Social Science (SPSS). The gathered information was then exposed to Principal Component Method of Factor Analysis utilizing Varimax Rotation to extract factors. To study about the effect of investigated factors, ANOVA was used.

V. DATA ANALYSIS

The study results are sorted out as pursues. In the main area, the statistic profile of the respondents is displayed. The second segment shows the consequences of ANOVA and Chi-Square Test.

Table 1: Statistic Attributes of Respondents

Variables	Classification of Variables	Frequency	Percentage (%)
Age-Group	18-25	78	15.6
	26-35	161	32.2
	36-45	195	39
	45 and Above	66	13.2
Gender	Male	261	52.2
	Female	239	47.8
Marital Status	Married	339	67.8
	Unmarried	161	32.2
Educational Qualification	Professional Degree	83	16.6
	Post Graduation	155	31



	Under Graduation	178	35.6
	Diploma	39	7.8
	Schooling	45	9
Average monthly family income	Rs. 20,000 and below	65	13
	20,000-30,000	111	22.2
	30,000-40,000	139	27.8
	Above 40,000	185	37
Occupation	Business	61	12.2
	Service	300	60
	Housewife	45	9
	Student	94	18.8

Source: Primary Data

Table 2-Internet Usage

Variables	Classification of Variables	Frequency	Percentage
Place of Accessing Internet	Home	285	57
	Office	200	40
	Cyber Cafe	10	2
	other	5	1
Time spent on Internet on Daily Basis	1 hour and below	122	24.4
	1-3 Hours	189	37.8
	3-5 Hours	78	15.6
	5-7 Hours	72	14.4
	7 Hours and Above	39	7.8
Purpose of Internet Usage	Entertainment	120	24
	Product Search and Information	128	25.6
	E-mail/Chatting	85	17
	Program/Music Downloading	100	20
	Online Shopping	160	32
	All of the Above	57	11.4
	Not Skillful	89	17.8
Ability to use Internet	Somewhat Skillful	105	21
	Skillful	189	37.8
	Very Skillful	117	23.4

Source: Primary Data

Table3-Online Shopping Behavior

Variables	Classification of Variables	Frequency	Percentage (%)
Product Purchased Online	Electronics	163	32.6
	Books	85	17
	Computer Accessories	118	23.6
	Grocery	70	14
	Fashion and Jewellery	180	36



	All of the Above	85	17
Mode of Payment used for online purchase	Debit Card/Credit Card	128	25.6
	Net Banking	85	17
	Cash on Delivery	211	42.2
	Any of these	145	29
Frequency of Online Shopping	Rarely(once per month)	255	51
	Seldom(1 to 3 times per month)	115	23
	Often(Once per week)	61	12.2
	Very often(More than once)	69	13.8
Average Amount spent on online shopping per month	Rs500-1000	185	37
	1000-5000	172	34.4
	5000-10000	50	10
	10000 and Above	93	18.6
No. of products purchased during last 6 months	None	89	17.8
	One to Four	239	47.8
	Five to Seven	95	19
	Seven and Above	77	15.4
Frequency of abandoning shopping cart	Never	178	35.6
	Rarely	150	30
	Often	111	22.2
	Very often	61	12.2
Internet Usage behavior pattern	Visitor	155	31
	Browser	139	27.8
	Internet Buyer	206	41.2

Source: Primary Data

5.1 Tools of Data Analysis

1) Reliability Testing: Cronbach's Alpha

Cronbach's Alpha is planned as a proportion of interior consistency of things in the survey. It fluctuates somewhere in the range of zero and one. The closer alpha is to one, the more noteworthy the inward consistency of the things in the poll. All out number of inquiries or things in the survey is 32 trying factors or LIKERT scale factors . Thus "N" of things in the underneath Cronbach's Alpha test is 32.

Table 4: Results of Reliability Analysis

Cronbach's Alpha	No. of Items
0.804	32

Source: Primary Data

Inference: Cronbach's alpha test was performed to check the unwavering quality of inquiries or things and it brought about a general score of 0.804 showing inner consistency of the things.

2) Factor Analysis

To investigate factors affecting online purchasing decision, respondents were provided with a list of statements and were asked for to stamp their understanding or conflict with every one of these announcements on a 5 point Likert scale running from 1 for firmly Disagree to 5 for Strongly Agree. The subsequent reactions were factor broke down. Bartlett's Test of sphericity ($p < 0.001$) and KMO Sampling Adequacy test (0.707) showed that information were suitable for factor analysis. Essential Component Analysis with Varimax Rotation while holding Eigen Values more prominent than 1 and factor loadings of 0.40 or more noteworthy diminished 32 items into 6 Factors. The factor arrangement showed that right around 88 percent of the fluctuation was clarified by six factors.

Table 5-Factors affecting Online Purchasing Decision: Exploratory Factor Analysis

Factors Affecting Online Purchasing Decision	Factor Loadings					
	F1(Convenience)	F2(Security & Privacy)	F3(Product)	F4(Website)	F5(Service)	F6(Personal)
ITEM TOTAL(32)						
Online shopping is a convenient way to shop	0.79					
Online shopping leads to Saving of Time and Money.	0.522					
Online shopping is available 24 hours, 7days a week.	0.462					
Privacy is assured in online transaction.		0.78				
Security of personal and financial information during online transaction		0.613				
Considerable difference in regular prices of products and prices of same products during period of sale on online websites.			0.881			
Availability of discounts and offers online.			0.841			
Wider Product Selection			0.806			
Availability of economical products			0.755			
Better Quality of Products			0.745			
There is considerable difference in prices of same products across different websites.			0.551			
Downloading speed of E-Commerce sites is generally good.				0.923		
It is easy to navigate through E-Commerce sites.				0.923		



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Looks and Graphics of E-Commerce sites create image in my mind				0.92		
Availability of Customer reviews and recommendations on website.				0.829		
Availability of sufficient amount and up-to-date information on website.				0.829		
Difficult and Time consuming product return policy.					0.878	
Timely delivery of products					0.878	
Availability of Cash On Delivery option.					0.846	
Tracking of online order is possible.					0.836	
All the products that are of my desire are available at my place.					0.758	
Availability of option to swipe debit card in case of cash on delivery option.					0.734	
Conformity of product as per order.					0.734	
Extra Hidden costs associated with modes of payment					0.645	
I go through the variety of products offline before						0.869
purchasing any product online.						
I find it easy to shop what I want through Internet shopping.						0.802
Online Shopping enhances my shopping effectiveness.						0.802



I buy online only through fully identified Internet retailers.						0.734
I am happy with my previous online purchase experience.						0.734
I was recommended to do online shopping by my near and dear ones.						0.727
I need to see and contact items before I get them.						0.676
I continuously look for online advertisements for sale announcements in social and print media.						0.647

Source: Primary Data

Factor 1: Convenience

It consisted of 3 items related to the convenience caused by Online Shopping to the respondents.

Factor 2: Security and Privacy

It consisted of 2 items Security and Privacy of Personal and Financial information during Online Transaction.

Factor 3: Product Related Factor

It consisted of 6 items related to quality, variety of products, availability of Economical products and availability of discounts and offers online.

Factor 4: Website related factor

It consisted of 5 items related to availability of customer reviews, up-to-date product information on websites as well as website design.

Factor 5: Service Related Factor

It consisted of 8 items related to various services provided by online e-commerce websites such as cash on delivery option, option to swipe debit card, Non- serviceability of remote locations, product return policy etc.

Factor 6: Personal Factor

It consisted of 8 items related to individual’s own perception towards online shopping.

VI. HYPOTHESIS TESTING

H1: Explored Factors significantly impact the respondent’s Online Purchasing Decision.

H1 a: Convenience Factor significantly impact the respondent’s decision to purchase online.

Null Hypothesis: Convenience Factor do not significantly impact the respondent’s decision to purchase online.

Since $p > 0.05 (0.186)$, the difference is non- significant. Thus, the null Hypothesis is rejected. Therefore, **Convenience Factor significantly impacts Online Purchasing Decision.**

H1 b: Security and privacy significantly impacts respondent’s decision to purchase online.

Null Hypothesis: Security and Privacy do not significantly impact respondent’s decision to purchase online.

Table 6- Security and Privacy Factor

Security and Privacy Factor	F Value	p
Security of Personal and Financial Information	2.632	0.055*
Privacy is Assured		

Source: Primary Data

Since $p < 0.05 (0.055)$, the difference is significant. Thus, the null hypothesis is accepted which conveys that **Security and Privacy do not significantly impact Online Purchasing Decision.**

H1 c: Website Related factors significantly impacts respondent’s decision to purchase online.

Null Hypothesis: Website related factors do not significantly impact Online Purchasing Decision.

Table 7- Website factor

Website Factor	F Value	p
Downloading speed of E-Commerce sites is generally good.	0.900	0.319
It is easy to navigate through E-Commerce sites.		
Looks and Graphics of E-Commerce sites create image in my mind		
Availability of Customer reviews and recommendations on website.		
Availability of sufficient amount and up-to- date information on website.		

Source: Primary Data

Since $p > 0.05$ (0.900) the difference is non-significant. Thus, the null hypothesis is rejected which conveys that **website related factors such as website design, downloading speed, looks and graphics of websites significantly impacts Online purchasing Decision.**

H1 d: Product Related factors significantly impacts respondent's decision to purchase online.

Null Hypothesis: Product Related Factors do not significantly impact respondent's decision to purchase online.

Table-8 Product Related Factor

Product Related Factor	F Value	p
Considerable difference in regular prices of products and prices of Same products during period of sale on online websites.	1.968	0.048*
Availability of discounts and offers online.		
Wider Product Selection		
Availability of economical products		
Better Quality of Products		
There is considerable difference in prices of same products across different websites.		

Source: Primary Data

Since $p < 0.05$ (0.048) the difference is significant. Thus, the null hypothesis accepted. Therefore, **Product Related factors significantly impact Online Purchasing Decision.**

Null Hypothesis: Service Related Factors do not significantly impact respondent's decision to purchase online.

H1 e: Service Related factors significantly impacts respondent's decision to purchase online.

Table 9- Service Related factor

Service Related Factors	F Value	p
Difficult and Time consuming product return policy.	0.807	0.598
Timely delivery of products		
Availability of Cash On Delivery option.		
Tracking of online order is possible.		
All the products that are of my desire are available at my place.		
Availability of option to swipe debit card in case of cash on delivery option.		



Conformity of product as per order.		
Extra Hidden costs associated with modes of payment.		

Source: Primary Data

Since $p > 0.05 (0.598)$ the difference is non-significant. Thus, the null hypothesis is rejected. Therefore, **Service related factors significantly impact attitude towards online shopping.**

H1 f: Personal Factors significantly impact respondent's decision to purchase online.

Null Hypothesis: Personal Factors do not significantly impact respondent's decision to purchase online.

Table 10: Personal Factor

Personal Factors	F Value	p
I go through the variety of products offline before purchasing any product online.	2.358	0.020*
I find it easy to shop what I want through Internet shopping.		
Online Shopping enhances my shopping effectiveness.		
I buy online only through fully identified Internet retailers.		
I am happy with my previous online purchase experience.		
I was recommended to do online shopping by my near and dear ones.		
I continuously look for online advertisements for sale announcements in social and print media.		

Source: Primary Data

Since $p < 0.05 (0.020)$ the difference is significant. Thus, the null hypothesis is accepted. Therefore, **Personal Factors do not significantly impact** respondent's decision to purchase online.

VII. CONCLUSION

It is obvious from the investigation that 32 odd variables obtained through rigorous literature survey were clustered into 6 factors that impact online purchasing decision. These components incorporate Convenience, Security and Privacy, Website related elements, Product related factors, Personal factors and administration related variables. To the extent effect of investigated factors on online buying choice is concerned, we found that comfort factor, site related factor, administration related factor, item related factor have a critical effect on web based purchasing decision whereas personal factors and most importantly security and privacy factor are found not to have a critical impact on web based purchasing decision.

LIMITATIONS AND SCOPE FOR FUTURE RESEARCH

Despite the fact that the goals of the investigation were completely met, a couple of confinements have been distinguished over the span of this examination. To begin with, the present investigation concentrated on just chosen areas of Garhwal division of Uttarakhand.. This could constrain the speculation of discoveries. This makes a

perfect chance to consider progressively differing statistic gatherings. Besides restricted factors were utilized in this investigation. Scientists can consider different elements that can likewise influence web based purchasing conduct. Further scientists can likewise direct research to analyze internet purchasing conduct with extraordinary reference to item classifications and brands just as with reference to explicit online business sites. In spite of the fact that example measure is adequate, it tends to be expanded by the future scientists. Further, this exploration is subject to common limitation of accuracy of response. Thus, in future researches different measures can be adopted to overcome them.

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