

# Online or Offline Shopping: Factors that Determine Customer Behavior

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**Abstract** - In this paper, the objective is to study the preference of online/offline shopping by consumers based on a plurality of factors, such as, geography, app/webpage, developed/developing/underdeveloped countries, urgency of delivery. The online/offline shopping behaviour by consumers based on geographical factor includes various land forms and climatic conditions. The online/offline shopping behaviour by consumers based on app/webpage includes a study of an e-commerce giant's user data usage. The online/offline shopping behaviour by consumers based on the type of country includes a case study comparing three countries, one each in developed, underdeveloped, and underdeveloped. The online/offline shopping behaviour by consumers based on the urgency of delivery is classified on the basis of product type.

**Key Words:** Online, Offline, Geography, Webpage, App, Developed, Developing, E-Commerce, Delivery, Underdeveloped, Land Forms, Climate

## 1. INTRODUCTION

The growth of internet in the past two decades has been insurmountable, catalyzing digital economy driven by information technology. This growth in internet technology marks an increased user base and improved internet speed. Today, the growth of internet has most predominantly been capitalized by companies to widen its consumer base, through the use of web development. Apropos, the companies promote, advertise, sell, and display images of their products and services on the internet through their website/application. Furthermore, the company website entails all the relevant details pertaining the product that a user would desire to know from a seller. This is slowly embarking a shift in consumers' behavior from the traditional style of shopping by visiting shops to the easily accessible online shopping. Moreover, this paradigm shift in internet access and technology now means that the beneficiaries of the internet are also a contributor to the development of online shopping. Keeping up with the change in consumers' behavior, most companies have now revamped their marketing strategy to best suit their consumers and not fall behind in changing demands. On the other hand, the consumers gain a clear advantage when the Internet gives them an access to the best of global market, through which they get to compare prices across regions, assess the fragmentation of prices by order, and also be informed of better alternatives.

To sum up, the growth of the e-commerce industry today seems a promising story. In the past however, capturing this growth typically meant the transactional elements of activating online channels, optimizing merchandising, and investing in traffic generation. On the basis of the consumers' behavior, it is required to follow some considerations, such as, value proposition, market, competition, human resources, inventory control, financing, pricing, technology, trend and legislations. In order to draft a business plan involving e-commerce activity, studying consumer behavior is most indispensable. This behavior may include chasing quick and easy ways, high quality and inexpensive product, personality, consumption experiences, enforced requirements and loyalty (secured in terms of transactions and desired product).

## 2. Literature Review

Shopping in any country is directly influenced by the needs and demands of a customer. Good customer research helps in planning on how to convince the customers, that they need your products and services. The shopping behaviour of customers depend on different factors in both online as well as offline means.

**(Arjun Mittal, November 2013):** A study shows that web consumer's trust and risk factor drastically affects their online shopping choices. The trust of a consumer on an e-commerce company affects the acquiring choice of a buyer.

**(Abdul Gaffar Khan, 2016):** Online shopping has a plurality of factors that increases a consumers' loyalty towards online shopping and empowers the organization to acquire upper hand over different rivals in a developing economy.

**(Mohammad Ahmad Al-hawari, August 2012):** Different factors have been analyzed and studies have shown that online shopping depends on many factors. However, there is also a need to consider the influence of offline factors on customer's trust for online services use. Results shows that any employee-based service quality don't have any relationship with online mode and completely has a positive relationship with existing offline mode

**(Cherukuri Jayasankara Prasad, February 2011):** According to a study shoppers' age, gender, occupation, education, monthly household income, family size and distance travelled to store has significant impact on offline shopping behaviour. However, in some conditions the offline buying behaviour to some extent may depend upon shoppers' demographic attributes.

**(Jin Zhang, April 2014):** Also O2O e-commerce has open new doors to consumers to have an offline trust for any product and then use online services to buy the same. However, this has created more difficulties for the traditional online as well as offline shopping mode

Although, various factors have been analyzed in the past for prediction of customer behavior, multiple other factors that are less addressed should not be neglected during customer research for any business idea or model.

### 3. Methodology

#### HYPOTHESIS 1: GEOGRAPHY

1. Study location: Researcher was surveying the factors influencing consumers' attitude and perception to make e-commerce purchase through online shopping from range of age in every selected location/area.

2. Sampling Method: This study was conducted by convenience sampling method because of the unavailability of the list online consumer that involved in online purchases. There were 100 respondents in this research study. The respondents were drawn from different occupational categories, education, age, gender or ethnic categories but all of them fulfilled the basic condition mentioned earlier.

3. Instruments the main instrument for this study was a questionnaire. The questionnaire aimed to gather information about respondents' socio-demographic background, behaviour towards online shopping and purchase perception towards online shopping.

4. Pre-test: Pre-test was done prior to the actual research. This pre-test is involved 10 respondents in order to ensure that the questions are understandable by the actual respondents.

5. Data collection/analysis: The data were analysed and the main statistical analysis was descriptive statistics such as frequency, percentage and mean were calculated to describe respondents' background behaviour and patterns of using internet and buying online.

E-commerce, even under the most radical scenarios, will not make geography irrelevant. So long as goods must be delivered and complementary face-to-face interactions are stimulated by online interactions, distance will still matter. E-commerce may, however, have a significant effect on the spatial distribution of economic activities. Broadly speaking, the locational choices of firms and households depend on spatial patterns of accessibility that at the end depends upon consumer's behaviour. To the extent that e-commerce alters patterns of accessibility it will affect location choices.

#### 1. Industrial impacts.

The term "industrial impacts" refers to changes in the location of facilities directly involved in the shift from offline retailing to e-retailing. This has significant implications since retail is one of the largest categories of employment, especially in metropolitan areas. The spatial distribution of this employment decline will depend on two things: first, which segments of the consumer market behaviour or experience the highest rate of e-retailing penetration, and second, which segments of the retail industry will suffer the most direct competition from e-retail.

One can make two plausible hypotheses. First, that urban populations are most likely to adopt e-retail because they are better educated and more likely to use the Internet actively for other purposes, and second, that people in non-metropolitan counties will adopt most rapidly because they have the most to gain from access to the wide variety of goods provided on the Internet. If the first hypothesis is correct, offline retailers in urban areas will suffer the greatest decline, while if the second is true, the greatest decline will occur in rural areas or in towns with rural service areas. Perhaps the first hypothesis will prove true in the short run while the second will prove true in the long run.

#### 2. Transportation impacts

Outside the retail sector itself, the most obvious impacts of growth in e-retailing will be on transportation. Put simply, substitution of e-retail for offline retail entails a substitution of personal transportation (almost exclusively by car) for

freight transportation of the package delivery variety. A relatively small number of delivery firms with prior experience in this type of service (in the U.S., UPS, U.S. Postal Service, and FedEx are the dominant players) have benefited from the rapid growth in e-commerce. And, this likely to have faster accordingly and appreciated by every consumer. Even not only has the volume of goods they handle increased, but the range of services they provide to the e-retailer has expanded as well. Many failures in e-retail over the last few years have been in large part the outcome of the fact that e-retail site developers have placed too much emphasis on site design and marketing and not enough on the more mundane order fulfilment process with correct geographical approaches.

### 3. Pervasive impacts

From the customer’s perspective, the attraction that some locations have over others based on accessibility to offline shopping facilities. This is not an inconsequential point since 12 percent of the average U.S. household’s budget is spent on transportation 7 and 8 percent of the vehicle miles travelled is for shopping purposes. Since this is roughly comparable to the 10 percent of miles travelled for journey-to-work, 8 e-commerce in principle has a potential to affect residential decisions roughly equivalent to that of telecommuting. Note that despite the pricing regimes, it will still be more expensive to deliver goods to households who opt for more remote residential locations. Therefore those consumers will enjoy a cross-subsidy from more centrally located consumers. The possible hypothesis on this factor can be stated as the consumer choices and behavioural aspects acknowledges through the ease in availability of the desired product. This may not depends upon the e-retailing with any e-commerce website or doing offline shopping. But prior potential will change these factors to tend the choices over internet product choices at every location indeed, immersed and brutally impacted every consumer brain via socialized advertisements.

Specific Objective	Hypotheses	Statistical Test	Discussion
To investigate how socio-demographic (age, income and occupation) affect consumers' attitude towards online shopping.	Ho1: There is no significant difference between age and attitude towards online shopping.	One-way ANOVA	Fail to reject
	Ho2: There is no significant difference between income and attitude towards online shopping.	One-way ANOVA	Rejected
	Ho3: There is no significant difference between occupation and attitude towards online shopping.	One-way ANOVA	Fail to reject
To probe how the pattern of online buying (types of goods, e-commerce experience and hours use on internet) influence consumers' attitude towards online shopping.	Ho4: There is no significant difference between pattern of online buying (types of goods) and attitude towards online shopping.	One-way ANOVA	Fail to reject
	Ho5: There is no significant relationship between e-commerce experience and attitude towards online shopping.	Pearson Correlation Test	Rejected
	Ho6: There is no significant relationship between hours spent on internet and attitude towards online shopping.	Pearson Correlation Test	Fail to reject
To examine how purchase perception (product perception, customer service and consumer risk) influence consumers' attitude towards online shopping.	Ho7: There is no significant relationship between product perception and attitude towards online shopping.	Pearson Correlation Test	Rejected
	Ho8: There is no significant relationship between customer service and attitude towards online shopping.	Pearson Correlation Test	Rejected
	Ho9: There is no significant relationship between consumer" risk and attitude towards online shopping.	Pearson Correlation Test	Fail to reject

## **HYPOTHESIS 2: TYPE OF COUNTRY (DEVELOPED, DEVELOPING, UNDERDEVELOPED)**

Based on the availability of the product, internet access, product affordability, awareness of online shopping, logistics, market, government stability, threats of terrorism, discount offers, delivery period, brand loyalty. In Bbenkele (1986), a study on less developed countries discusses impact of multiple factors and presents an investigation of brand loyalty in Zambia.

Based on an example of Amazon's operation in three different countries US (developed), India (developing), Bangladesh (Underdeveloped). The countries are selected based on Human Development Index data 2019.

**Amazon US:** It should come as no surprise that Amazon.com is one of the most successful eCommerce retailers in the US, but what may be a little more surprising is just how much the marketplace dominates the eCommerce market in America. In 2016, Amazon accounted for 43% of all US online retail sales. While that alone should be enough of a reason to consider Amazon as part of your US expansion plans, there are several other benefits as well. To start with, Amazon invest a lot into developing their US offering, arguably more so than in any of their other global markets. Amazon Prime Now (delivery within an hour) is just one example of their services being developed in the US. With regards to sheer potential though, it can't be ignored that Amazon.com also has over 95 million unique visitors to their site every month. That's a lot of potential customers. Despite there being no language barriers between the UK and the US, there are variations on spellings which should be reflected in your US listings. Let's assume you sell jewellery, for example. If you're not optimizing your Amazon listings for the US spelling of 'jewelry', you could be significantly reducing your visibility, reach and more importantly, sales. Language variations aside, there are of course other barriers that come with selling into the US, largely requirements regarding tax, customs and even having a physical presence. We would urge you to seek advice from lawyers to discuss these requirements.

### **Amazon India:**

With an annual growth rate of 51% (the highest in the world) and as many as 83% of the population now shopping online, there's no denying the Indian eCommerce market is one to watch. What's perhaps more interesting is that 25% of the consumers have shopped internationally in the last year alone, highlighting the demand for international products. That in itself opens up a huge opportunity for your business. Despite there being several marketplaces available to sell on in India, however, Amazon's Indian site - Amazon.in - is in fact growing in popularity, particularly following the launch of Prime in 2016. As if that isn't enough of a reason to consider Amazon.in, the marketplace further dominated eCommerce mobile search in India last year, accounting for 46% of all eCommerce related searches in the country. As with any international market, there are of course advantages and disadvantages to consider. To start with, the logistics landscape in India is still relatively undeveloped, which should be a something to bear in mind if you're not using a fulfillment service. In order to sell in India (on Amazon or any other marketplace), you will also need to appoint a third-party service provider to represent you in the country. More specifically, they will need to provide the legal and financial entity for Amazon to trade with. Logistics challenges and entry requirements aside, there are plenty of benefits, including the fact that English is one of the official languages of India - eliminating any language barriers - and there is a growing appetite for international brands and higher quality foreign products, thanks to the rising income levels and increased awareness

**Amazon Bangladesh:** Amazon operates in 12 online marketplaces across the globe with most countries being developed or developing.

However, Amazon, global e-commerce giants, have planned to enter the Bangladeshi market by 2020, said Rezwanul Haque Jami, vice -president of the e-Commerce association of Bangladesh (e-CAB). "On the other hand, Amazon has come to Bangladesh and held meetings with the government and the authorities concerned. They are planning to start operating here by 2020," said Rezwanul. Underdeveloped countries which are expected to grow, have a stable government, market and decent logistics, will flourish in upcoming times.

Hypothesis suggests that the Amazon qualitatively operates best in US, quantitatively in India and has a future in Bangladesh. For countries similar to the countries researched upon, the data would should or less hold true.

## **HYPOTHESIS 3: APP VS WEBPAGE**

The rate of online shopping by a person is much more in case of mobile app as compared to the webpage. The use of mobile phones has increased dramatically in the past few years. The increased number of smartphone users has effectively increased the online shopping behavior from 2015 to 2019. In the current scenario, about 77% of the population of USA owns a smartphone, which is about 230 million of consumers. Apart from smartphone about 100 million of US consumers

have a tablet. The number of US smartphone users will reach an approximate value of 232.8 million in 2019, surpassing desktop/laptop internet users (228.9 million) for the first time. Till January 2019, 53.60 million active mobile users are among the population of UK. Talking about India, currently, there are about 515.2 million active mobile internet users and about 765.1 million active mobile internet users in China. An estimated 10 billion mobile connected devices are currently in use. About 79% of smartphone users in US have made a purchase online using their mobile device in the last 6 months about 40% of all ecommerce purchases during the 2018 holiday season were made on a smartphone in US. Interestingly a fact concluded that about 80% of shoppers compared the product with the mobile devices in the stores to find a better alternative product or physical shop (Jason Chow, August 2019).

Looking at the stats according to the time spent by an amazon app user with respect to an Amazon web user is much higher. Amazon app users on average per month spend 12.843 billion minutes in app versus mobile web visitors who spend on an average 2.352 billion minutes per month on Amazon's mobile site. So, on an average per month, of all the time consumers spend shopping on Amazon, 84.5% of that time is in app versus 15.5% on the mobile web. Same is the case with Alibaba and other shopping sites (April Berthene, Mar 25, 2019).

Thus, online shopping behavior of the consumer is more inclined towards shopping on an app as compared to a webpage.

#### **HYPOTHESIS 4: URGENCY OF PRODUCT**

Online shopping behavior of the consumers highly depend on the urgency of product and delivery system of any company. The big giants including Amazon and Alibaba are trying to reduce the delivery time by various methods.

Prime by Amazon is an annually or monthly paid membership, which is part of the company's subscription service segment. Amazon prime offers customers with exclusive offers, free one day or two-day shipping in the United States. However, apart from the big offers and exclusive deals, the main reason for accepting a high number of prime users is free one day or two-day shipping. As of March 2019, there were approximately 103 million Amazon Prime members in US. Industry sources estimates that 62 percent of Amazon customers in the United States are Amazon Prime members. (J. Clement, Jul 12, 2019)

Talking about the consumer satisfaction on the product delivery, most of the consumer are disappointed with only one-day late delivery. 33 percent of the online shoppers contact customer service regarding an urgent or time-sensitive item when it arrives just one day late. One third of online shoppers contact customer service when a non-urgent item arrives just one day late, and 79 percent claim that they would contact customer service when a non-urgent item arrives two to three days late. With the growth of the mobile phones, it is seen that a consumer tracks a product delivery and is growingly more disappointed when the product is not delivered in a given time. Also, the product delivery depends on the type of product needed. Household items including grocery are considered of urgent requirement by the consumers. These items are preferred to be delivered within one day. On the other hand, some products such as, furniture or electronic product are expected to be delivered in 2-3 working days.

Furthermore, Amazon pantry and grocery service has been started, through which products get delivered in a whopping two hours. This is attracting the customers to new aspect of buying their daily needs online.

The above stats show that the delivery time is one of the most important factors for consumer's trust and satisfaction for online shopping. The business growth in amazon to this level is because of its product delivery and time which satisfies consumer according to the expectations.

#### **SURVEY:**

A survey was performed by the team in which a sample of 536 people were asked to fill a questionnaire asking about their online shopping preferences based on the factors covered in the hypotheses. These people were from different countries including India, China, Sri Lanka, USA, Canada, Bangladesh etc. The people in the survey were both men and women from diverse economic, social, academic and cultural backgrounds.

The results of the survey were analyzed, and it was concluded that, about 76.39% of the people surveyed who were analyzed, had shopped online within 3-6 months. Further, 8% of the people surveyed bought a product online in last 9 months. In addition, 69.43% of the people surveyed suggested that they would like to shop on websites such as, Amazon using their mobile app and not on the webpage. However, 18.22% of the people surveyed suggested that they would prefer webpage over an app. Apart from this most of the people from countries like India and USA were inclined towards buying product from amazon prime due to its one-day delivery. Talking about the time of delivery, about 85.53% of the people

surveyed suggested that they would buy a product of their need from an option which provides fast delivery and about 38.66% of people were ready to give extra money for a single day delivery. Based on the portion of the population from different countries, the result showed that most of the buyers are from developed countries including USA, however the number of buyers is exponentially improving in developing countries as well. Further, in the survey conducted on American, Indian, and Bangladeshi citizens, it was found that 76.32% people were satisfied with online shopping services in US, while 54.23% people were satisfied with online shopping services in India. This number was at 12.7% in Bangladesh but is expected to go up in coming times.

## 5. Conclusions

The paper talks about various factors of online and offline shopping based on a plurality of factors.

What we conclude from our study and survey is discussed below:

1. In types of countries, divided into developed, developing and underdeveloped, countries which are developed and have a decent sized market are most effectively operating online, some developing countries with a decent sized market are quantitatively operating at best and underdeveloped countries with decent sized market are an interesting place for e-commerce companies to invest in the future. They currently mostly prefer offline mode of shopping.
2. Shopping behavior of an individual based on their mode of operation is much more inclined towards app based operation as compared to webpage. The use of smartphones by an individual has drastically increased from a decade which has an immense impact on the mode of shopping. The survey also concluded that a large section of the potential consumer of any product is more inclined towards shopping a product based on the app rather than the website.
3. The shopping behavior and more importantly the trust of a consumer highly depends on the need of a product and the delivery time of that particular product. It is shown that an individual want to buy a product from a place from where his or her product is delivered with minimum time. Therefore, the delivery system of any product highly influence consumers and it is clear that any potential consumer of online product is more inclined toward a company which provides a lesser time in delivering their product.
4. Based on the results obtained from the questionnaire, there was no clear trend indicating the preference for online/offline shopping behavior based on geography. However, it was observed that regions with better infrastructure and connectivity had a rise in preference for online shopping in most cases.

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