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# **Relationship between Demographic and Internet Usage**

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#### Abstract

The reason to conduct this research was to evaluate if there is any relationship between the Internet usage and demographic factors (age, income, education, gender, and income level) of the Internet users. Hypotheses regarding the association of Internet usage and different demographic factors were developed. Survey was carried out for the collection of data through questionnaire, which included some questions about the demographics of the respondents, and their usage of Internet. Non-probabilistic sampling was used. Sample size used in this research was 299. Outcomes of this research were anticipated to be helpful for the advertisers to understand the viewership of internet/web pages for the online advertisement. Hence, from the results of this research it was determined that no relationship exists between demographics (age, income, education, gender, and income level) and Internet usage. **Keywords:** Relationship, Demographics, Internet Usage, Non-probabilistic

# **1. INTRODUCTION**

## 1.1. Overview

Today as the world is moving globally, the pace of communication has also become rapid. Nowadays, communication can be defined as sharing of knowledge and interaction amongst people through different forms and means. As life move on, Internet has become the most important means of communication and gathering information. Generally children and youth are quick adopter of Internet for use of communication, education or entertainment. The online population in Asia is growing day by day. According to research, Asia has the largest number of online population globally which currently stands at 34 percent. If we talk about usage of Internet for business purposes, it is a cost effective media as well as a quicker media may be with respect to other media. This means that organizations are easily able to communicate with its customers and suppliers across the globe.

Increasing uses of Internet is making it a most useful way of communication. People with different educational levels, gender and age use Internet for different purposes. Uses of Internet include downloading, purchasing, messaging, social networking etc. According to a research, males use Internet mostly for downloading and purchasing while females are more interested in messaging and social networking. However, younger users are more involved in downloading and messaging activities than older users.

#### **1.2 Problem Statement**

To find out if a relationship exists between the Internet usage and demographic factors: age, income, education, gender, and income level.

#### 1.3 Hypotheses

H1: There is no significant relationship between age of consumer and Internet Usage

H2: There is no significant relationship between education of consumer and Internet Usage

H3: There is no significant relationship between income of consumer and Internet Usage

H4: There is no significant relationship between gender of consumer and Internet Usage.

# 1.4 Definitions

#### 1.4.1 Demographics.

In this study, the independent variables are gender, income level, age and education in order to know that which specific demographic variables use Internet for which purpose.

#### 1.4.2 Internet Usage.

In this study, the dependent variable is Internet usage, which includes chatting, social networking, downloading and purchasing. This represents the total usage of all these variables according to demographics

# 2. LITERATURE REVIEW

As Internet is on rapid growth it is very important to understand the demographic variables, which are related to Internet usage. Most researches on usage of Internet have been conducted in the US and Europe rather than in Asian countries (Teo, 2001). This is primarily because Asia has the largest number of online population globally. Few researches showed that there are number of factors that are related to Internet adoption and its consumption like demographic variables and motivational variables.

The purpose of this research is to find out the relationship between demographic factors and the consumption of Internet. As the development of Internet industry has been very rapid, people are adopting it at a very quick speed. Internet media is in growth stage in Asia and a lot of people love to spend their maximum time on Internet while at home or at office etc. Education is also a very influential element for explaining the access and use of Internet (Gong et al., 2006). So marketer should capture this media to communicate brands with customers or consumers. According to (Internet World Stats, 2012) there were around more than two billion user on Internet globally. If compare the Internet users from 2000 to 2012 there has been an increase of 566% in Internet users.

Nowadays, consumption of internet in Karachi has also increased with increased usage of Social Media (Facebook) for interaction and chatting amongst youngster and lot of people are earning through internet like blogs, Facebook fan page etc.

Young generation has become more active on Internet media (Chan & Fang, 2007). Communication is an essential aspect of integrates transference of information in the society. Internet plays a vital role in communication. Communication includes exchange of knowledge, engaging with new and old members, entertainment etc. The Internet is a new world for different age groups with both consequences; the good one and the bad one (Chan & Fang, 2007).

Another factor behind the success of Internet media is that it is used for searching information and is also part for entertainment like listening songs, watching movies etc at the same time. Another factor of Internet medium's success is convenience; people can get access anywhere they want to from their laptops and cellular phones etc. Young generation like to consume Internet mostly for communication, searching information and for entertainment stuff (Chan & Fang, 2007). They consider it as a more convenient and reliable resource than any other medium. They think they are far better in consumption of Internet rather than their parents (Livingstone & Bober, 2003).

As mentioned before Internet has consequences, good one and the bad one. The Internet creates negative impact on users as well. Online harm includes visibility to inappropriate content and sites, issues of privacy etc. (UCLA, 2001). Use of internet for personal reasons at the workplace causes inefficient performance of the workforce such as low output, chaotic work, and unpunctuality that can be a cause of severe loss to the organization (Ramayah, 2010). According to research in USA, teenager use Internet for research and for their homework purposes. Males more often engage in gaming, music etc. on Internet while females use Internet for knowledge and for fashion purposes (Chan & Fang, 2007).

Most of the people find websites with the help of search engines like Google or from word of mouth marketing of these websites. According to Giges's 1991 people's life style and consumption around the world is similar from the age of 14 till the age of 34. Total population of age group from 10 to 24 is 1.8 billion out of which 1.01 billion users are from Asia which makes 61% of total population from Asia (Nugent, 2006). As Asian income level and educational level is on increasing trend they are more likely to adopt western consumption and fashion (Chan & Fang, 2007).

In global market, people are more likely to shop online but in case of Pakistan most of the people are not aware of online shopping, as the people here believe in recreational shopping. The motif of shopping in our country is to combat boredom and have fun. Moreover physical activity and social motives are also covered in the shopping trips (Fenech & Cass, 2001). The other groups of people, who have knowledge about it, do not believe and they also hesitate to share their confidential information with corporate companies online.

Current users are directly related to future success of online medium commercially. In the contemporary world, social media has spread awareness among the people about online buying. Now the people are actually buying and shopping goods on Internet like clothing and jewelry etc. But, still they hesitate to share their private and confidential detail with any supplier on Internet. Here buying behavior is like people give order online and they will pay on delivery. As online shopping is an innovation hence people like to adopt innovation nowadays and in western countries online shopping is quite common and according to research eastern countries like to adopt western countries' fashion and life styles.

It is essential to understand for marketers the factors that attract consumers for online shopping hence they can target them according to their needs. They should also know the factors, which induce consumers to not shop online. The marketers with these factors in mind can minimize them in order to capture the Internet medium for shopping purposes. As the success and failure of online shopping is dependent on Internet users who use this medium for shopping purpose, it is integral that the marketers create an environment of ease and focus for these users. According to research some factors like characteristics of product offerings online, marketing techniques applied on online medium and the cost and benefits attached with online shopping includes why people prefer online shopping rather than physical buying (Lynch & Beck, 2001).

In the previous era, we see people likely to adopt innovations very quickly like adopting cellular phones or satellite TV. And today, people like to search products on Internet and then induced to get all the pertinent information about the product online. Once the feedback and reviews they get are satisfactory they go to the market and buy the product physically. So why don't companies offer that product online? As earlier said eastern countries are adopting western countries in fashion as well as in food so most probably they will also be inclined to adopt online medium for shopping goods. Hence marketers should have their products online in order to stay in the market and have a competitive advantage by offering their products online before their competitors, creating a competitive edge over the competitors in the market (Korgaonkar & Wolin, 2002).

By observing buying behavior of people, researcher would come to know that people are likely to purchase goods at their door steps they would not want to go far away for each and every purchase. In older days, people used to travel extensively for purchasing goods but now numbers of stores are opening in every single area. Hence, the consumers do not need to travel a lot for their products. As we see people are not willing to travel long distances for a brand (most of the time) lot of users switch their brands because of this that they need to travel long distances for their brands. They get any substitute or any competitor's product which they can get hands on easily. In one of study consumers who use internet medium for communicating, for information purpose or for entertainment purpose at a high rate will also adopt internet medium for shopping purposes quickly because they are well aware of internet and its functions.

Consumers are innovative in their own way; they like to have changes, as consumers get bored with the same thing. In many researches, researchers have talked about consumer innovativeness like open processing and domain specific innovativeness (Joseph & Vyas, 1984). There are millions of users who consume Internet medium for many purposes and a relatively small amount of individuals' use it for shopping purposes (Citrin, et al, 2000). According to Novak et al (2000) he concluded that consumer's creativity should be present in order to transform normal Internet users into online purchase through online medium.

This research is focused and a better understanding of the consumption of Internet usage for purchasing, downloading, searching and chatting. We will study the differential effects of gender, education, age, and income level on Internet usage. In a research, females were less interested in understanding of Internet phenomena than males (Teo, 1998). Researcher also concluded that 90 percent of the total respondent in his research used Internet, which were under the age of 30, which meant most of the Internet medium cover with youngsters. Marketer should promote the brand on Internet medium, which are related to youngster.

In USA 2002, almost 43 percent of total populations were connected to the Internet medium. Many companies are advertising their product and brands on Internet medium and consumers do not mind these types of advertisements as they have more control on these advertisements rather than any other traditional medium of advertising. This is because they can only view the content or only those advertisements, which they want to view, they can easily neglect those advertisings in which they are not interested (Yang, 2005).

Furthermore, consumer can get information about the product or a brand on internet medium they can get their feedback on internet medium before purchasing and even after purchasing through which marketers can improve their products with the help of consumers' feedback. This means that they are also connected through millions of consumers' around the globe through one platform and they can satisfy their customers by using two-way communication facilities on Internet medium. Because of this they can make close relationships with consumers and they can get consumers' insights, which help them to know consumer needs for product development with a lesser cost than traditional media Obaid et al., 2012; Yang, 2005).

There are few characteristics which only Internet medium has like two-way communication. They can measure their advertising return on Internet medium; they can also reach to global market through Internet. Internet is not just a better medium for advertising but also an effective medium for communication and direct contact with consumers through different forums and channels. In another research it was concluded that people who are educated and younger in age have more access on Internet as they have their personal computer at home, school and work stations, because of this they are more experienced and feel comfortable in consumption of Internet. People who use Internet from a long time are more likely to male, they belong to high-class family, there income level is also high (Ahmed et al., 2012; Katz & Aspden, 1997).

Consumers use internet for different purposes in this study we are concerned about consumption of internet for social networking, chatting, downloading and purchasing and its relationship with demographics which include, Gender; through which researcher came to know which sex consumes internet for what purposes, Age; which helps researcher to understand the difference between consumption of internet between different age groups, Education; through which researcher know does education level have any impact upon internet usage or not? Income; so researcher knows the impact of income level of different respondents on their Internet consumption. Consumers who shop online and have an experience of online shopping of more than two years are

willing to purchase only almost twice as compared to those consumers who shop online on a very limited basis. Researcher quoted that the main reason not to shop online is security (Sexton, Johnson & Hignite 2002)

# 3. RESEARCH METHODOLOGY

# 3.1 Method of Data Collection

Survey was carried out for the collection of Data. Respondents were asked to fill the Questionnaires. Data Collection method was primary.

#### 3.2 Sampling Technique

Unrestricted, a common non-probability sampling method was applied to reach the intended sample.

#### 3.3 Sample Size

A sample size of 299 Internet users was most appropriate to provide the relevant information for the research (Ahmed et al., 2015)

#### 3.4 Instrument of Data collection

To facilitate the primary data collection, a structured questionnaire was developed.

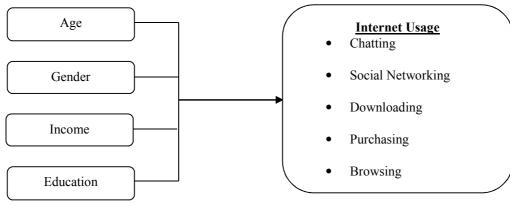
# 3.4.1 Validity and Reliability Test

Table. 1: Reliability Statistics

Cronbach's Alpha	No. of Items
.632	9

The above figures of coefficient of reliability indicate a relatively low level of reliability for the data collected through the survey. Respondents sometimes due to lack of interest do not fill the questionnaire properly. So, the reason for weak consistency in the data can be the effect of lack of interest or understanding among the respondents which leads to improper responses from some of the respondents which results in increased variation in the data.

#### 3.5 Research Model



Source (Undertaken Study)

#### 3.6 Statistical Technique

Taking into consideration the variables of the study, General Linear Model was applied because independent variable is categorical.

# 4. EMPIRICAL ANALYSIS

#### 4.1 Findings and Interpretation

This study aimed to find out the possibility of any kind of relationship between demographics and Internet usage. So, to discover the outcomes of this study the General Linear Model technique was implemented.

H1: There is no significant relationship between age of consumer and Internet Usage

H2: There is no significant relationship between education of consumer and Internet Usage

H3: There is no significant relationship between income of consumer and Internet Usage

H4: There is no significant relationship between gender of consumer and Internet Usage.

		Value Label	Ν
	1	Female	104
Gender	2	Male	195
	1	16-25	207
	2	26-35	82
	3	36-45	5
	4	46-55	1
You fall in the age group;	5	above 55	4
	1	20000 or less	43
	2	20001 - 40000	62
Your family income (per month) ranges from;	3	40001 - 60000	61
	4	60001 - 80000	36
	5	above 80000	97
	1	Any other	9
	2	Bachelor	104
	3	Intermediate	29
	4	Masters	155
Your current education level:	5	Matriculation	2

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	$2.262^{a}$	13	.174	.290	.993
Intercept	171.492	1	171.492	285.554	.000
Gender	.489	1	.489	.815	.368
Age.Group	.138	4	.035	.058	.994
Family.Income	.760	4	.190	.316	.867
Education.Level	.566	4	.142	.236	.918
Error	171.159	285	.601		
Total	4667.938	299			
Corrected Total	173.421	298			

a.

b. R Squared = .013 (Adjusted R Squared = -.032)

As per the above mentioned figures, no relationship was found between the dependent variable which is internet usage and independent variables that are Age, Gender, Education and Income because the significance value of none of the variables is greater than 0.05.

On the other hand, the value of sums of squares also did not explain any relationship between dependent and independent variable. As the value of sums of squares for dependent variable are 2.262.

Furthermore, R-Square value, which is .013, and the value of adjusted R Square, which is -.032, also states that no relationship was found between the dependent variable (Internet usage) and independent variables (Age, Gender, Education and Income).

## 4.2 Summary Assessment of Research Hypotheses

Hypotheses		EMPIRICAL	
		CONCLUSIONS	
Relationship between demographics and internet usage.			
H1: There is no significant relationship between age of consumer and	.994	Accepted	
Internet Usage.			
H2: There is no significant relationship between education of	.918	Accepted	
consumer and Internet Usage.			
H3: There is no significant relationship between income of consumer	.867	Accepted	
and Internet Usage.			
H4: There is no significant relationship between gender of consumer	.368	Accepted	
and Internet Usage.			

# 4.3 Discussion

Understanding the online interactions and activities is the need of the day because in the current scenario, Internet carries a great deal of importance in every walk of life because either we talk about entertainment or education or even if we talk about business, all activities have transformed into online processes. So, the reason to carry out this research was to understand the relationship between the patterns of Internet usage of consumers and their demographics (Age, Education, Income and Gender). Whereas, it was found that Internet usage (downloading, social networking, chatting and purchasing) is not dependent on any of the studied demographic factors including Age, Gender, education and Income.

# 5. CONCLUSION AND IMPLICATIONS

#### 5.1 Conclusion

This study came across with the conclusion that Internet usage (downloading, social networking, chatting and purchasing) has no influence of demographic factors of the consumers. So, according to the outcomes of this research one cannot determine the level of Internet usage by the demographics of audience. Now, researcher can say that difference in age of the people does not reflect any significant level of their exposure to Internet. Similarly, income also has no impact on Internet usage of the masses because Internet now is not that expensive that it surpasses the affordability of consumers. On the other hand it was found that even difference of gender does not reflect any difference in the frequency of Internet usage for downloading, social networking, chatting and purchasing. Furthermore, level of education was also found to have no influence on Internet usage of consumers, which means that their pattern of Internet usage does not necessarily get affected with their education level.

# 5.2 Implications

This study aimed to provide the advertisers an understanding of which kind of audience can be effectively targeted through online advertisements. As, the usage of internet is increasing day by day which means the viewership of web pages is increasing, so this increasing viewership has made internet an important medium for advertisements. But according to the findings this research, it was found that almost every kind of audience could be targeted through online advertisement. No specific usage pattern was observed for any specific kind of audience in terms of age, gender, income, and education level.

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