

## **IMPLICATION OF MOBILE PHONE USAGE ON ITS USER**

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### **ABSTRACT**

Mobile phone is a handy device which is used in everyone's day to day activities. The use mobile phone from waking up in the morning till the late night messaging. It has become an integral part of our life. This report was created to study the various effects and impacts mobile phone has on us and our day to day activities. Various objectives were categorised like what are the effects mobile phone has while driving, on its user's health and on privacy. A questionnaire was created and rotated for the same. A total of 222 responses were collected.

Various results were taken out from the responses given to us by the respondents. We were able to study the possible effects one can have if he/she uses mobile phone while driving. Privacy breach on cell phones while doing banking transactions have increased. Which has also affected the cell phone users? With coming of improved technology comes greater health risk. This is also the case of mobile phone. People have rated that there is an increase in cases of loss of eyesight and that cell phone is also one of the reason for cancer. Our generation is also inclined towards mobile phone which has made their work easier.

**KEYWORD:** Health Implication, Mobile phone, Driving, Z generation, Privacy, Evolution of mobile phone, Internet browsing.

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## **INTRODUCTION**

A mobile phone is a handy device from which you can do calls and receive them simultaneously. The radio recurrence interface builds up an association with the exchanging frameworks of a cell phone administrator, which gives access to people in public switched telephone network (PSTN). Notwithstanding communication, 2000s-time cell phones bolster an assortment of different administrations, for example, content informing, MMS, email, Internet get to, short-extend remote correspondences (infrared, Bluetooth), business applications, computer games, and advanced photography. **(Lifewire, 2017, Para 2)** Cell phones offering just those capacities are known as feature telephones; cell phones which offer incredibly propelled registering abilities are smart to as cell phones.

The first cell phone was shown by John F. Mitchell and Martin Cooper of Motorola in 1973, utilizing handset measuring c. 2 kilograms (4.4 lbs). In 1983, the DynaTAC 8000x was the primary financially accessible handheld cell phone. From 1983 to 2014, overall cell phone memberships developed to more than seven billion, entering for all intents and purposes 100% of the worldwide populace and coming to even the base of the monetary pyramid. **(Blom, J., 2012)**. In first quarter of 2016, the best cell phone producers were Samsung, Apple, and Huawei (and Smartphone deals spoke to 78 percent of aggregate cell phone deals).

A handheld versatile radio telephone utility was imagined in the beginning times of radio building. In 1917, Finnish creator Eric Tigerstedt recorded a patent for a "pocket-estimate collapsing phone with a thin carbon mouthpiece". Early forerunners of phones included simple radio correspondences from boats and trains. The race to make genuinely convenient phone gadgets started after World War II, with advancements occurring in numerous nations. The advances in portable communication have been followed in progressive "ages", beginning with the mid zeroth-age (0G) administrations, for example, Bell System's Mobile Telephone Service and its successor, the Improved Mobile Telephone Service. These 0G frameworks were not cell, bolstered couple of synchronous calls, and were extremely expensive. **(Kjeldskov, J., 2003)** The first handheld cell phone was shown by John F. Mitchell and Martin Cooper of Motorola in 1973, utilizing handset measuring c. 4.4 lbs (2 kg). **(Blom, J., 2012)**

The principal business computerized cell organize was propelled in Japan by Nippon Telegraph and Telephone in 1979. This was followed in 1981 by the synchronous dispatch of the Nordic Mobile Telephone (NMT) framework in Denmark, Finland, Norway, and Sweden. Several different nations at that point followed in the ahead of schedule to mid-1980s. These original (1G) frameworks could bolster much more concurrent calls yet at the same time utilized simple cell innovation. In 1983, the DynaTAC 8000x was the main economically accessible handheld cell phone. **(Blom, J., 2012)**

In 1991, the second-age (2G) advanced cell innovation was propelled in Finland by Radiolinja on the GSM standard. This started rivalry in the segment as the new administrators tested the occupant 1G arranges administrators. After ten years, in 2001, the third era (3G) was propelled in Japan by NTT DoCoMo on the WCDMA standard. This was trailed by 3.5G, 3G+ or turbo 3G improvements in view of the rapid bundle get to (HSPA) family, permitting UMTS systems to have higher information exchange rates and limit. **(Kjeldskov, J., 2003)**

By 2009, it had turned out to be evident that, sooner or later, 3G systems would be overpowered by the development of transmission capacity concentrated applications, for example, gushing media. Consequently, the industry started looking to information upgraded fourth-age advancements; with the guarantee of speed changes up to ten times over existing 3G advances. The initial two monetarily accessible innovations charged as 4G were the WiMAX standard, offered in North America by Sprint, and the LTE standard, first offered in Scandinavia by TeliaSonera.

Toward the beginning many years down the line, simply having a telephone in your pocket was another and energizing feeling. At that point along came a telephone that let you take pictures, go on the web was introduced. Step by step changing the way you carried on with your life. Here's an indication of how telephones advanced near to you.

**(The Telegraph, 2017)**

Sr. No.	Name	Launch	Camera	Weight	Storage
1.	First generation	1980s	NA	200g	NA
2.	Nokia 3310	2000	NA	133g	NA

3.	Motorola Razor V3	2005	640*480 pixel VGA	95g	5MB
4.	Blackberry Pearl 8100	2006	1.3MP	189.5g	64MB up to 16GB
5.	I phone 3G	2008	2MP	133g	8-16GB
6.	I phone 5	2012	1.2MP and 8MP	112g	16/32/64GB
7.	Sony Xperia Z	2013	13.1MP and 2.2MP	146g	16GB
8.	I phone 6	2014	8MP and 1.2MP	129g	16/64/128GB
9.	Samsung Galaxy S7	2016	12Mp and 5MP	152g	32/64GB

### **REVIEW OF LITERATUTRE**

Drivers use mobile phones for about 10 minutes before a crash and on trips at the same time. There was an increased risk of crashing whether or not a hands free device was used. There was a similar risk in men and women while driving of age more than 30 years. Use of mobile phones increases the chances of crash resulting in an injury. Using a hands free phone is not safer (McEvoy and Stevenson, 2005). Vehicle collisions are a standout amongst the hugest difficulties of present day social orders, setting a colossal helpful weight on people, families, groups and nations. Studies have demonstrated that the utilization of mobile phones while driving can weaken driving execution, which can cause a genuine activity wellbeing issue. Studies have additionally demonstrated that with the expansion as a rule utilization of mobile phone, calling while at the same time driving has likewise expanded. The recurrence of utilizing of mobile phone while driving on Qatar's streets and its effect on drivers has been essential. This examination comes about a gauge rate of wireless use in Qatar. This standard rate will be basic in concentrate the impact of tentative arrangements or systems that can limit the effect of phone utilize while driving in Qatar, including new strategies, requirement, and open crusades. This objective was accomplished through a factually illustrative perception test of wireless utilizing practices from drivers on Qatar's streets (Shaaban, 2013)

Despite concerns raised about the presentation of individual information on relational association regions, look at has displayed that customers continue revealing individual information. The present examination uses outlines and gatherings to break down the segments that Impact College understudies to reveal singular information on Facebook. What's more, the mull over the techniques understudies have made to guarantee themselves against security risks. The results show that individual framework measure was unequivocally associated with information revelation, no alliance was found between stress over unwanted gatherings of spectators and information divulgence ultimately, understudies' Internet security concerns and information exposure were oppositely related. The security confirmation methods used consistently were the preclusion of individual information, the usage of private email messages, and adjusting the default insurance settings. In perspective of our revelations, the propose a model of information divulgence and make judgments for speculations of character verbalization. **(Young and Haase, 2009)**

It stresses the advantages of versatile correspondences for customers. The reason for this paper, be that as it may, is to explore the dismissed negative impact of "m-bullying" on youthful shoppers, to grow the comprehension of the unavoidable effect of upgraded versatile correspondence. Data were gathered utilizing a cross-sectional shopping center capture technique. The study instrument involved arrangements of articulations about the self and the experience of utilizing cell phones, trailed by an arrangement of statistic questions. Findings show the two sexes encounter m-bullying and that levels of self-esteem were found to directly affect general prosperity. While earlier research accentuated the positive parts of upgraded availability, this paper propels comprehension of the negative parts of versatile correspondences and distinguished the danger of tormenting innate in persistent correspondence. **(Drennan, Mark and Gillian, 2011)**

Low-level microwave (MW) fields may under specific states of presentation cause quantifiable impacts in natural life forms. Presentation of the overall population to MWs in nature is for the most part beneath forces which are considered as in charge of bringing out bio effects. Presentation of mobile phone (CP) frameworks has expanded significantly MW introduction of CP clients. Wellbeing results of long-term utilization of CPs are not known in detail, but rather

accessible information show that improvement of non-specific wellbeing manifestations is conceivable, at any rate in "MW easily affected" subjects. Rather than terminal CPs, transmitting reception apparatuses and base stations (BS) add to MW ecological pollution just with a little bit of the vitality and don't represent any wellbeing dangers. Wellbeing dangers of CP utilize are disparaged and acknowledged, while dangers of BS are by and large overestimated by people in general. Consequently, an enhanced hazard correspondence and additionally investigations of the dangers are required (**Stanislaw and Elzbieta, 2000**).

### **OBJECTIVES OF THE STUDY**

- To study the evolution of cell phones.
- To explore the effect of use of mobile phones while driving.
- To understand the effect of mobile phone on privacy.
- To study the importance of mobile phones for our generation.
- To study the use of mobile phones accompanied by the issue of health implications for human.

### **RESEARCH METHOD**

This study adopted a qualitative approach in order to ascertain the key implications of mobile phone on its user and what effect does it have on its user. It also helps us in determining that how it can change about our technology and improves it further. It was done to ascertain the fact that what all implications does mobile phone have on its user, effects of mobile phone when user uses his mobile phone while driving, we all know that mobile phone also have a privacy concern when people do their banking transactions using mobile phone a fear of privacy is there the paper discusses further the importance of mobile phone for our generation. Thus in total, 222 informants were interviewed of different age groups from December 2007- February 2018. It was felt by the researchers that that the informants would be more objective in their reflections being an adult and the child and their opinions would be open for research.

**DATA ANALYSIS****CORRELATION**

- Correlation is calculated to study whether price increases with increase in features in mobile phone.

		Feature is an important part of mobile phone.	I consider price while buying mobile phone.
Feature is an important part of mobile phone	Pearson Correlation	1	.523**
	Sig. (2-tailed)		.000
	N	222	222
I consider price while buying mobile phone	Pearson Correlation	.523**	1
	Sig. (2-tailed)	.000	
	N	222	222

**\*\* Correlation is insignificant at the 0.01 level (2-tailed)**

Correlation between two factors is 0.523 which shows that they are highly correlated and with increase in price there is an increase in feature of a mobile phone.

**T-TEST****One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean

<b>I think with introduction of 4g by the telecom companies has increased the usage of internet on mobile phone</b>	222	3.69	1.347	.090
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### One Sample Test

	Test Value= 0					
	T	df	Sig (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
<b>I think with introduction of 4g by the telecom companies has increased the usage of internet on mobile phone</b>	40.848	221	.000	3.694	3.52	3.87

**Ho: There is no significant relationship between launch of 4G services by telecom industry and increase in usage of internet services**

**H1: There is significant relationship between launch of 4G services by telecom industry and increase in usage of internet services**

*At 95% level of significance P value is 0.000 & Alpha is equal to 0.05. Thus  $p < \alpha$ ; Null hypothesis is rejected.-*

**CORRELATION**

- Correlation is calculated to study whether it is right to use mobile phones while driving and whether they should be fined for the same or not.

		<b>I think using mobile phone while driving is not right</b>	<b>I think offenders who use mobile phone while driving should be fined</b>
<b>I think using mobile phone while driving is not right</b>	<b>Pearson Correlation</b>	1	.776**
	<b>Sig. (2-tailed)</b>		.000
	<b>N</b>	222	222
<b>I think offenders who use mobile phone while driving should be fined</b>	<b>Pearson Correlation</b>	.776**	1
	<b>Sig. (2-tailed)</b>	.000	
	<b>N</b>	222	222

**\*\* Correlation is insignificant at the 0.01 level (2-tailed)**

Correlation between two factors is 0.776 which shows that they are highly correlated and that it is wrong to use mobile phone while driving and they should be fined for it.

**T-TEST****One-Sample Statistics**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
<b>Do you think using mobile phones while driving can cause accidents</b>	222	3.95	1.365	.092

**One Sample Test**

	Test Value= 0					
	<b>T</b>	<b>df</b>	<b>Sig (2-tailed)</b>	<b>Mean Difference</b>	<b>95% Confidence Interval of the Difference</b>	
					<b>Lower</b>	<b>Upper</b>
<b>Do you think using mobile phones while driving can cause accidents</b>	43.182	221	.000	3.955	3.77	4.14

**Ho: There is no significant relationship between using mobile phones while driving and causing of accidents**

**H1: There is significant relationship between using mobile phones while driving and causing of accidents**

*At 95% level of significance P value is 0.000 & Alpha is equal to 0.05. Thus  $p < \alpha$ ; Null hypothesis is rejected.*

**CORRELTION**

- Correlation is calculated to study whether radiations cause health issue in mobile users.

		Mobile phone causes health issue on its users.	Radiations which mobile phone emit is harmful for its user.
Mobile phone causes health issue on its users.	Pearson Correlation	1	.773**
	Sig. (2-tailed)		.000
	N	222	222
Radiations which mobile phone emit is harmful for its user.	Pearson Correlation	.773**	1
	Sig. (2-tailed)	.000	
	N	222	222

\*\* Correlation is insignificant at the 0.01 level (2-tailed)

Correlation between two factors is 0.773 which shows that they are highly correlated and that mobile phone is one of the causes for creating health problems in its users.

**T-TEST****One-Sample Statistics**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
<b>Do you think that increase in usage of mobile phone can increase the chances of having a health issue</b>	222	3.54	1.397	.094

**(TABLE 4.3.4)****One Sample Test**

	Test Value= 0					
	<b>T</b>	<b>df</b>	<b>Sig (2-tailed)</b>	<b>Mean Difference</b>	<b>95% Confidence Interval of the Difference</b>	
					<b>Lower</b>	<b>Upper</b>
<b>Do you think that increase in usage of mobile phone can increase the chances of having a health issue</b>	37.718	221	.000	3.536	3.35	3.72

**Ho: There is no significant relationship between increase in use of mobile phone and increase in chances of having a health issue**

**H1: There is significant relationship between increase in use of mobile phone and increase in chances of having a health issue**

*At 95% level of significance P value is 0.000 & Alpha is equal to 0.05. Thus  $p < \alpha$ ; Null hypothesis is rejected.*

## **CORRELATION**

- **Correlation is calculated to study whether it becomes safe to use net banking services after installation of antivirus and antitheft services.**

		<b>It is great concern to use mobile phone for net banking and other services</b>	<b>I think it is important to have antivirus and antitheft software on mobile phone</b>
<b>Mobile phone causes health issue on its users.</b>	<b>Pearson Correlation</b>	1	.604**
	<b>Sig. (2-tailed)</b>		.000
	<b>N</b>	222	222
<b>Radiations which mobile phone emit is harmful for its user.</b>	<b>Pearson Correlation</b>	.604**	1
	<b>Sig. (2-tailed)</b>	.000	
	<b>N</b>	222	222

**\*\* Correlation is insignificant at the 0.01 level (2-tailed)**

Correlation between two factors is 0.604 which shows that they are highly correlated and that installing antivirus and antitheft services help people in doing net banking services easily.

## T-TEST

### One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
People who store there important and secure information in mobile phone have more chances of privacy breach	222	3.35	1.270	.085

### One Sample Test

	Test Value= 0					
	T	df	Sig (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
People who store there important and secure information in mobile phone have more chances of privacy breach	39.274	221	.000	3.347	3.18	3.51

**Ho: There is no significant relationship between people who store important and secure information in mobile phone and increase in chances of privacy breach**

**H1: There is significant relationship between people who store important and secure information in mobile phone and increase in chances of privacy breach**

*At 95% level of significance P value is 0.000 & Alpha is equal to 0.05. Thus  $p < \alpha$ ; Null hypothesis is rejected.*

## **FINDINGS**

- Generation Z are more interested in features of a mobile phone rather than the price. They don't consider price while buying a smart phone rather they focus on features according to their requirements.
- With increase in price there is an increase in features of mobile phones and they are highly correlated.
- Generation Z and Millennial now focus more on completing their projects through the use of internet. Internet services have provided the generation in searching and working on their curriculum.
- There has been a demand for a faster internet which has led to more usage of internet. With the launch of 4G services by the telecom companies have actually increased the use of internet among the youth.
- Most people agree that use of mobile phone while driving is an offence and that people should be fined for the same. There is a high chance that if you are using mobile phone while driving then you would be fined for the same.
- People who use mobile phone while driving have more chances of meeting a car accident. There is a significant relationship between using mobile phone and meeting an accident.
- Major effects of using a mobile phone while driving can cause a risk to your life and you can be fined for the same if caught using.
- There is a high chance of suffering from a health issue if you are one of the users of a smart phone.

- Radiations which mobile phone emit are very harmful and can be a threat to your life. Excessive use of mobile phone is bad.
- Radiations which mobile phone emit can cause cancer in its user. People have rated mobile phone as one the major contributors of people suffering from cancer.
- If you use mobile phone a lot through the day then there are increase chances of you suffering from a health issue. Mobile phone is very injurious to health.
- From the age group of 21-25 says that cancer is the issue that is caused by mobile phone.
- Loss of eyesight is the top rated health issue by the people if you use mobile phone. People rated loss of eyesight the most.
- Baldness and infertility were given the least out of the all by all the age groups.
- Mobile phone is one of the problems of blood pressure.
- Antitheft and antivirus services make people confident in using net banking services on their mobile phones.
- Net banking services may lead to loss of your important banking passwords if your phone is having a virus. Hacker can hack your mobile phone from the same virus but installing antivirus and antitheft services can save you from such activities.
- There is a high correlation between installing antivirus and antitheft services on mobile phone and using net banking services.

## **CONCLUSION**

Many people are unaware about the privacy breach on mobile phones. People are unaware about the privacy breach on cell phone which is increasing the security on mobile phones. No proper measures to secure their mobile phone are taken by users because they are unaware about the privacy breach. People tend to store important information on mobile phone which has led to increase in chances of privacy breach. Mobile phone has evolved a lot from the first generation mobile phone launched in 1980s with just calling feature to I phone X in 2017 with every possible feature. There are negative impacts of using mobile phone while driving, possible effect of using mobile phone while driving is that you can get fined or meet with an accident. There is an increase in privacy breach if you don't have proper software installed in your mobile phone. Proper awareness should be given to the users of mobile phone about the privacy breach so that

they are able to take proper steps. Generation Z are more inclined towards the features of mobile phone irrespective of its price. Companies should focus more on increasing and providing better features to its users so that they are able to stay and compete in the market. Today's generation is more inclined towards features because they want everything to be quick, fast and easily accessible. People have become aware about the health effects of mobile phone. One of the reasons for major health effect by mobile phone in its user is radiations which are emitted by mobile phone. People think that there is a loss of eyesight while using mobile phone. Companies should focus more on the brightness of the screen of mobile phone and research in a direction which do not spoil the eyesight of its user. Proper awareness campaigns should be done so that people are more aware about the effect on health by the usage of mobile phone.

### **MANAGERIAL IMPLICATIONS**

Companies should see what all implication does mobile phones are causing on its user. Mobile phones have been an integral part of everyone's life. Increase in usage of use of mobile should also develop technology by time. Proper privacy concerns should be there for its user and companies should assure their privacy with better security features in the Smartphone. There is nothing a phone cannot do now a days and companies should take proper steps so that privacy is assured. Change of chips or anti radiation chips should be inbuilt installed by the companies so that radiations cannot harm the user. Proper measures should also be taken by the companies so that brightness of mobile phone does not harm the eyesight of the user.

Authorities should also look into the matter of users using mobile phone while driving. Proper actions should be taken against them so that they can take some lessons and improve upon it for future purposes.

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