



## Does Smartphone affect productivity?

*Surya Nair*

Keraleeya Samajam's Model College, Dombivli East, Mumbai, Maharashtra, India  
suryanair.model@gmail.com

### Abstract

Smartphones have become very popular nowadays as it can be used for various activities. Due to the increasing technologies, a smartphone can also do work like a computer. Initially, smart phones were seen as expensive items and was affordable only for a few people. But nowadays, it is available and used by many people all around the world. This study examined whether using smart phones impacted various people of different age groups. 111 people participated in an online survey. The smartphone usage pattern was examined in the context of participants age and their self perceived productivity. Many researchers claim that smartphones can cause negative consequences such as the reducing work efficiency, low productivity, separating people from real world, stress issues. While the use of smart phones has the capability to improve productivity, significant time is spent during working or studying hours for personal use of such devices.

Keywords— smart phones, technologies, online survey, productivity, work efficiency

### 1. INTRODUCTION

In the present world, life without smartphone cannot be imagined. Smartphones are one of the important part of human life. After oxygen, smart phones are considered as most important. Earlier telephones were invented for communication purposes. But nowadays telephones have been replaced by smart phones that made the work of people very easy. What mobile phones offer today in terms of capabilities has extended far beyond the initial purpose which was to provide contact between two people. Today phones have video and camera facilities, games, radio and stream multimedia. This means all the activities can be performed by tapping on the smart phones.

With so many options available on a device which can be hand held, individuals face difficulty in managing task and self regulations. Smartphones offer both opportunities as well as challenges. Due to pandemic situation almost everything has gone virtual. Smart phones has been used extensively by students for online classes and working people for job related purposes. Multitasking through smartphone causes some loss of time or quality. Social media websites are a big part of today's society as many people post and tweet about their personal life, use it as a platform to show their concerns and to connect with others who are far away. The current study shows how the productivity of people has been affected by using phones, positively or negatively. Smart phones have proven to be the smartest way to do work but at the same time people have fully dependent on it and become lethargic. It negatively affects the people by reducing the face to face communication, increasing stress levels, causing distractions etc. This study builds from the analysis and integration process of the existing researches which helped in providing necessary information in order to develop a new model in this research.

### 2. POSTIVE ASPECTS OF USING SMART PHONES

There are many positive aspects of using smartphones and are mentioned below.

1. Students achievements significantly increase when they use smart phones during studying. This is because their timely task gets completed due to the app notifications which is available in the device. They constantly use camera in order to take pictures of the concepts which are taught in class. Students prefer downloading online lectures so that they could listen to them according to their convenience and the demand for e-books has also increased rapidly. Various applications like emails, Zoom, Teams, Google Classroom, Google Drive has been used extensively by students due to online lectures. This helps them in creating, uploading, sharing, study materials, submitting assignments, quizzes, writing tests etc. Use of smart phones by students helps in building collaborative learning environment through Internet connection. It also helps in improving the social skills by giving them the opportunities to seek study related assistance and support. Smart phones also helps them to reduce stress by providing various means of entertainments like watching movies, playing games etc.
2. For working people, when they bring smart phones to offices, it can reduce the IT cost of organization. Smart phones are portable so that they could use it for their work. It promotes autonomy in workplace and employees feel better. Bringing your own devices at work is always better than the devices that a company provides. This is because they can use it in the way they want to and do not have any restrictions. Smart phones also helps the employees in improving the relationships with their superiors and peers. In order to increase the rate of productivity most companies make use of technology. The companies developed various kinds of tools which can be used for internal

communication purposes. For example wikis, microblogging platforms, internal social networks, internal instant messaging services. These tools are popular because they are private and secure which helps in reaching the employees of an organisation. These tools save a lot of money, time and energy of employees. Smart phones are allowed at workplace as these tools work best on smart phones and can be used at its full capacity and employees carry their devices everywhere. Smart phones also used for knowledge sharing. Every organization works on a flow of providing knowledge in order to make employees more productive. The combination of smart phones and cloud computing has a potential to expand the knowledge faster because smart phones users can connect and access information that they need anytime, anywhere which opens up many good opportunities. If people can be motivated by autonomy, then it can also provide them with job satisfaction.

3. Payments can be also done using smart phones. It is the most beneficial way to pay for goods and services. By using applications like Google Pay, PhonePe, cash and cards can be left at home and just the use of phone can be done for payments. This reduces the risk of carrying cash which can be stolen or lost. Paying using smart phones is easier than swiping cards. These applications uses Near-Field Communication technology (NFC) so that just tapping of phone is needed to pay at POS terminal. These apps uses encryption in order to reduce threat to personal data and the real card number is never stored. The card number is always masked. Nowadays most of the shops accepts online payment which makes transactions easier.
4. Social media is the most important reason for the use of smart phones. It can be used for communication purposes which includes social networking sites like WhatsApp, Instagram, Facebook, LinkedIn, etc where people can comment, post and establish relationship with other users. Other purpose of social media is for collaboration which includes Google Docs that helps in sharing and editing the documents online such as text format documents and spreadsheets, Drop box allows people to upload or download the files from a central folder, Wikipedia enables many people to update and view online encyclopaedia. Reviews and opinions can also be obtained from social media sites. Quora is the best example of site that is specialised in allowing open ended questions to be posed and the users in the community can respond to it. Amazon, Flipkart are more focused on consumer products. These sites allow reviews and comments which can be given by consumers on the products that it sells which includes rating system. Social media can also be used for entertainment purposes. One of the most popularly used video sharing sites include YouTube where users can upload and view videos while they can add comments, create their own channels and can also connect with different users. For the purpose of political activity and the reporting of news, Twitter and other social media channels play a very vital role. There are many other positive aspects apart from the above mentioned.

---

### 3. NEGATIVE ASPECTS OF USING SMART PHONES

Apart from positive factors, there are also negative aspects of using smartphone devices.

1. For students, the biggest disadvantage of smartphone is distraction from their lectures. Whether it is games, social media smartphone gives students a number of distractions. When they have phones in hand during lectures or study time the temptation to switch over to something more interesting is irresistible. Smart phones also gives students access to academic resources to cheat during exams. Many of the students are addicted to playing online games. Smart phones also changes the habits students. Through smart phones they search a lot of bad stuffs and develop bad habits. Lot of students get addicted to drugs, cigarettes. When they play games in smart phones they don't feel that the time is passing because they are fully concentrated in the game. Most of them prefer playing games at night because nobody will disturb them. This can also cause loss of sleep and fatigue. Before the era of technology, students used to spend quality amount of time with their family and friends. But nowadays they are busy in chatting, playing games in phones during free time. Due to smart phones face to face communication has reduced a lot. Some students are so engrossed in their phones even while walking on road or driving which can increase the chances of accidents. Smart phones destroys the thinking ability and creativity of students. Social media like Instagram, Facebook, WhatsApp kills a lot of their valuable time.
2. Increased use of smart phones can also cause anxiety, depression, loneliness. Chances of losing money due to fraudulence increases. Using of applications without having complete knowledge can leak the personal information which is really very harmful. Being online most of the time keeps people away from real life experiences and real friends. Exposure to unwanted things in smartphones can affect students mentally and physically. The light emitted from the smartphone can cause severe eye strain during long time use which slowly damages retina. The electromagnetic radiation will be high due to heavy internet usage and might lead to health problems like skin cancer, brain tumour, etc. Cyberbullying is the biggest disadvantage as it involves sending, posting, sharing false and negative information about others. Cyberbullying can put the life of a person in danger. Security is biggest concern while using smartphones. Data can be hacked and used for malicious activities. People face a lot of problems due to security issues such as the loss of money, reputation.
3. For employees, the negative aspect of using smart phones at workplace are given below. Communication is considered to be very important in order to prevent misunderstandings in workplace amongst the employees, management, clients, HR professionals. Due to rapid increase of smart phones, face to face interactions has reduced a lot limitations has been placed on personal relationships with clients, employees and management by relying on technology solely. It affects the performance, alters the relationships and decreases networking, business connections of employees with others. Smart phones has now become a major distraction at workplace which is the main issue that affects the quality of work of employee and their concentration level. The perception of certain messages and the meaning behind the words which are typed and pursued has been changed drastically due to daily use of smart phones. Personal interaction and facial expressions play a huge role in defining how an individual feels about something. The way an individual would mail or text a personal friend and a client would be different. For example "Have a wonderful day!" or "Have a wonderful day." could be interpreted differently when typing an email to the client. A friendlier vibe is given when an exclamation is used. In both the cases the employee has meant "Have a wonderful day" in an affectionate and friendly manner. But the punctuation can alter how the sentence is interpreted.

#### 4. PURPOSE OF STUDY

As the survey is conducted for age group of 18-60 years, the purpose is -

1. To determine the impacts caused by smartphones.
2. To assess the positive and negative effect of using smartphones.
3. To determine if smartphones increases or decreases the productivity of people of this age group.

#### 5. RESEARCH METHODS

The research method which was used is questionnaires as it is the best way to obtain information from a large number of people. The goal of the current research is to explore the impacts of smartphone on the people of age group from 18-60. The survey of people were carried out and data were collected. The collected data was then analysed for the research purpose.

#### 6 PUBLIC SURVEY AND EXPERIMENT

##### A. Public Survey

After creating the questionnaires, it was sent to various people from age group between 18-60 and data was collected on various aspects of smartphone usage among people.

##### B. Questionnaires

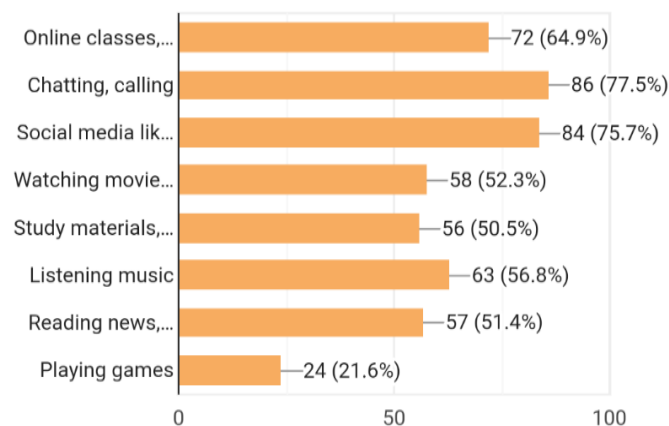
- For what purposes do you use smartphones daily?
- Other than studying or working hours how much time do you spend daily on smart phones?
- Can you spend a day or more than that without smartphones?
- For what activities do you use smartphones the most?
- Do you find yourself occupied on your phone when you should be doing important things and it causes problems?
- Do you think you can perform better without smartphones?
- Why do you think smartphones increases your productivity?
- Why do you think smartphones decreases your productivity?
- Overall what do you think smartphones increases or increases your productivity?

##### C. Results

111 people participated in the online survey. The age groups were divided into three categories like 18-30, 31-40, 41-60. The people were classified into three sectors like studying, working and others. From 18-30 age group, there were 69.4% responses, from 31-40 there were 9% responses and from 41-60 there were 21.6% responses. Out of 111 people, 38.7% people are students, 42.3% people are employees and 18.9% belong to other sector.

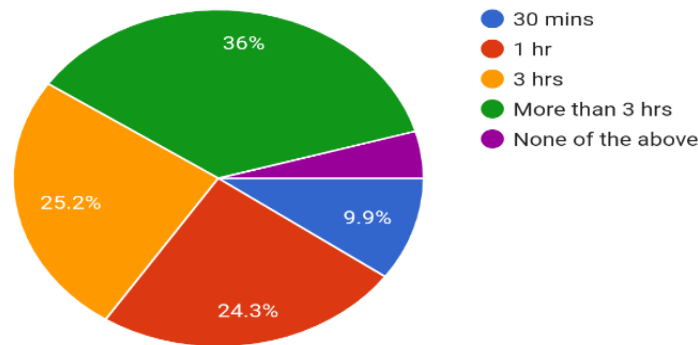
#### For what purposes do you use smartphones daily?

111 responses



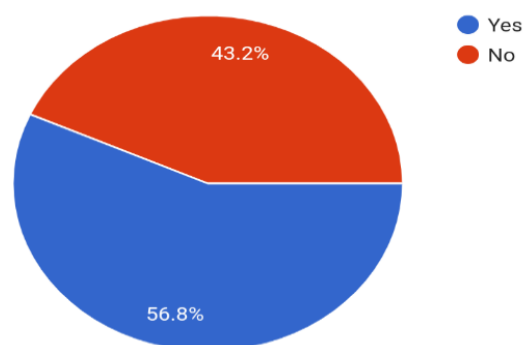
When the question was asked as for what purposes do you use smartphones the most, 77.5% people gave response as chatting, calling, 75.7% people gave response as social media like Facebook, WhatsApp, Instagram. 64.9% people use smartphones for online classes, meetings. 56.8% people use it for listening to music, 52.3% use smartphones for watching videos, movies. 51.4% people use smartphones for reading news, getting latest updates. 50.5% gave response as they use smartphones for study materials, references. 21.6% of people gave response as they use it for playing games.

### Other than studying or working hours how much time do you spend daily on smartphones? 111 responses



When the question was asked as other than studying or working hours how much time do you spend daily on phones, 36% of people responded that they use smartphones for more than 3 hours, 25.2% people responded as they use it for 3 hours, 24.3% people use smartphones for 1 hour, 9.9% people responded as they use smartphones for 30 minutes a day and the rest people selected option as none of the above.

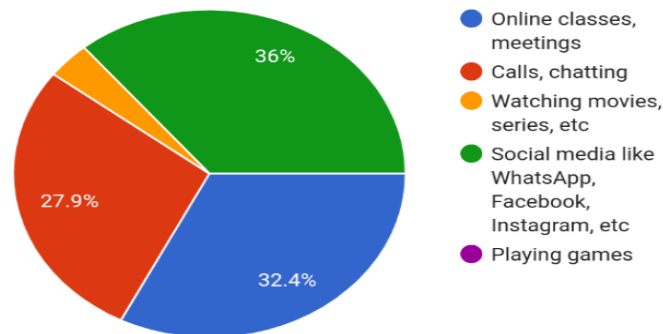
### Can you spend a day or more than that without smartphones? 111 responses



When the question was asked can you spend a day or more than that without smartphones, 56.8% people responded as 'Yes' they can spend a day or more than that without smartphones and 43.2% people responded as 'No', they cannot spend a day without smartphones.

### For what activities do you use smartphones the most?

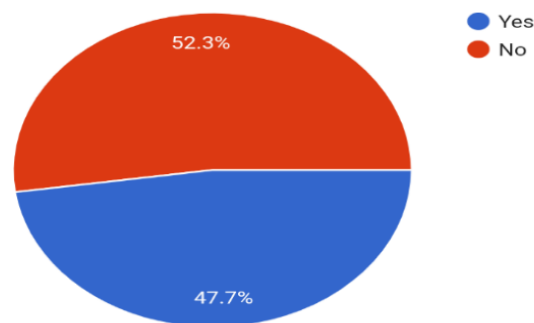
111 responses



When question was asked for what activities do you use smartphones the most, out of 111 people, 36% people responded that they use it for social media like WhatsApp, Facebook, Instagram etc. 32.4% people responded that they use it for online classes, meetings. 27.9% people responded that they use smartphones for calling, chatting and the rest people responded that they use it for watching movies, series. None of the m mentioned that they use smartphones mostly for playing games.

### Do you find yourself occupied on your phone when you should be doi...nd it causes problems?

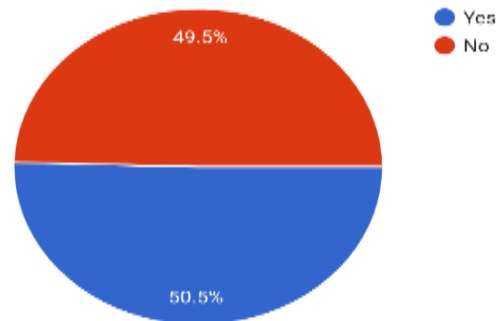
111 responses



When the question was asked do you find yourself occupied on your phone when you should be doing important things and it causes problems, 52.3% people responded as 'Yes' and 47.7% people responded as 'No'. This means that people who said 'No' are not distracted by smartphones when they do some important things.

### Do you think you can perform better without smartphones?

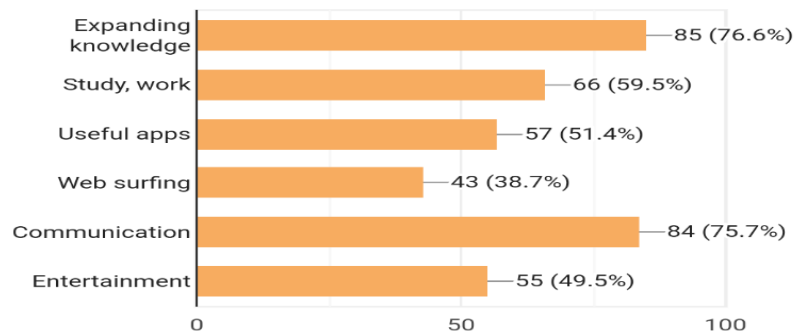
111 responses



When the question was asked do you think you can perform better without smartphones, 50.5% people responded that they can perform better without smartphones and 49.5% people responded that they cannot perform better without smartphones. Based on the above questions, 49.5% people feel that smartphones are helping them in performing activities better and without smartphones they feel that they cannot perform better.

### Why do you think smartphones increases your productivity?

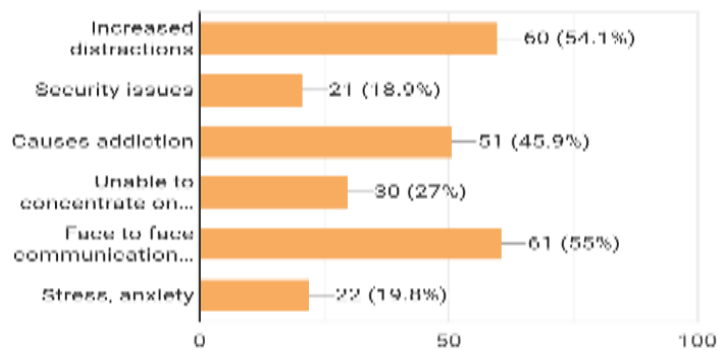
111 responses



When the question was asked why do you think smartphones increases your productivity, 76.6% people responded as expanding knowledge, 75.7% people responded as communication, 59.5% people responded as for studying, working. 51.4% people responded as useful apps, 49.5% people responded as for entertainment purposes, 38.7% people responded as they use it for web surfing.

### Why do you think smartphones decreases your productivity?

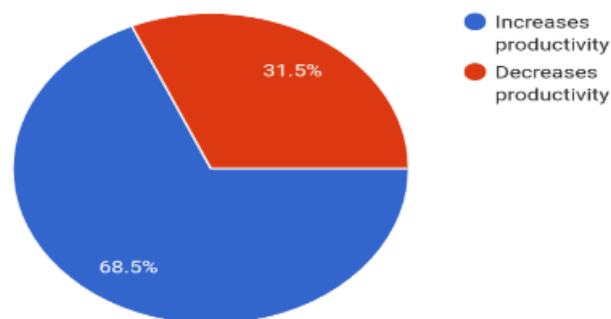
111 responses



When the question was asked as why do you think smartphones decreases your productivity, 55% people responded as they feel like face to face communication has reduced, 54.1% people responded as smartphones are causing increased distractions among them. 45.9% responded that smartphones are causing addiction. 27% people responded that due to smartphones they are unable to concentrate on studies, work. 19.8% people responded as smartphones are causing stress and anxiety issues. 18.9% people responded as smartphones can cause security issues.

### Overall what do you think do smartphones increases or decreases your productivity?

111 responses



After asking the above questions, the final question was asked as overall what do you think do smartphones increases or decreases your productivity. Majority of the people responded that smartphones increases their productivity. 68.5% people responded as smartphones increases their productivity. 31.5% people responded as smartphones decreases their productivity.

## 7. FINDINGS

1. From the survey responses, most of the people stated that they spend more than 3 hours on smartphones daily.
2. Majority of the people use smartphones mostly in social media apps like Facebook, WhatsApp, Instagram etc.
3. 56.8% of the total people responded that they spend a day or more than that without smartphones.
4. More than half of the people stated that they can perform better without smartphones.
5. The main reason that people stated for increasing productivity is expanding knowledge, communication purposes.
6. The main reason people stated for decreasing productivity is reducing face to face interaction, increased distraction.

7. From the above survey, 68.5% people have responded that smartphones helps them in increasing their productivity.

---

## 8. CONCLUSION

The above study was conducted in order to find how the smart phones impacted people. To understand if smart phones positively or negatively impacted them. In the survey, most of the people have stated that smart phones increased their productivity. 31.5% people stated that smart phones decreases their productivity. Some measures can be taken in order to increase productivity like To Do List can be created on a regular basis which consists of what they need to do in order to maintain their efficiency and remain concentrated while studying or working, some organisations have started carving out breaks where the employees are allowed to use smart phones only for a limited period of time. A particular time slot can be scheduled in order to limit smartphone usage. productive habits can be also developed so as to combat addiction of smart phones. The research on this topic also has some limitations.

---

## 9. LIMITATIONS

1. The limitation of the study is that it is dependent on the person for how much time he or she wants to access their smartphone and get back to study or work it varies from person to person.
2. It is very hard to predict the exact results on the about topic because the area of research is limited but the access of the smartphone is in a vast range.
3. As a student or employee, it is very tough to reduce the use of smartphone in their whole routine.

---

## REFERENCES

- [1] T. Pitichat, "Smartphones in the workplace: Changing organizational behavior, transforming the future", *LUX*, vol. 3, no. 1, pp. 1-10, 2013.
- [2] S. Prashant Singh and Dr. Dasgupta, "Do Smartphone Increase or Decrease Workplace Productivity", *PSYCHOLOGY AND EDUCATION (2021)* 58(2): 9365-9370, no. 00333077, pp. 1-6, 2020.
- [3] J. Kalavar and J. Swinehart, "Self-Reported Mobile Phone Use & Workplace Productivity between Age Groups", *Gerontology & Geriatrics Studies*, vol. 3, no. 1, 2018. Available: 10.31031/ggs.2018.03.000555.
- [4] I. Amin, N. Hassan and H. Jalil, "Relationship Between Social Media Usage and Academic Achievement among Tertiary Students in Malaysian Public University", *International Journal of Academic Research in Progressive Education and Development*, vol. 8, no. 4, 2019. Available: 10.6007/ijarped/v8-i4/6671.
- [5] K. Sk, ""Mobile Phone Addiction: Symptoms, Impacts and Causes-A Review.""", *International Conference on Trends in Industrial & Value Engineering, Business and Social Innovation*, no. 978-16-35357-55-4, pp. 1-7, 2019.
- [6] "5 benefits of using a mobile payment app| LGFCU Personal Finance", *Lgfcu.org*, 2021. [Online]. Available: <https://www.lgfcu.org/personal-finance/5-benefits-of-using-a-mobile-payment-app>.
- [7] "Do Smartphones Increase Or Decrease Workplace Productivity? – Arab essay", *Arabessay.com*, 2021. [Online]. Available: <https://www.arabessay.com/do-smartphones-increase-or-decrease-workplace-productivity/>.
- [8] "What are the advantages and disadvantages of smartphones?", *Tutorialspoint.com*, 2021. [Online]. Available: <https://www.tutorialspoint.com/what-are-the-advantages-and-disadvantages-of-smartphones>.
- [9] "Advantages and disadvantages of mobile phones - Javatpoint", *www.javatpoint.com*, 2021. [Online]. Available: <https://www.javatpoint.com/advantages-and-disadvantages-of-mobile-phones>.
- [10] "Workplace Productivity in an Era of Smartphones", *Corporatwellnessmagazine.com*, 2021. [Online]. Available: <https://www.corporatwellnessmagazine.com/article/workplace-productivity-in-an-era-of-smartphones>.