



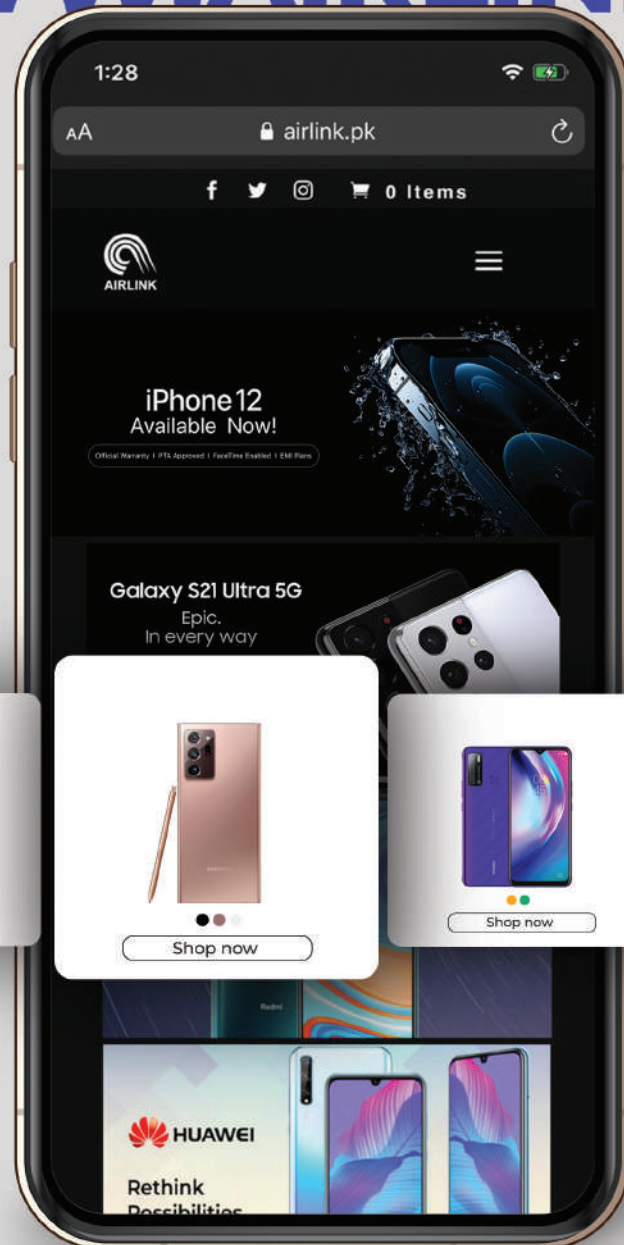
phoneWorld

**2021**  
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THE RISE OF TELECOM FRAUDS IN PAKISTAN;  
WHAT NEEDS TO BE DONE

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We want to thank our customers, business partners, financial institutions, associates and our team for their trust, confidence and for always considering Airlink as their smart device partner.

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**ADNAN KHAN**  
Managing Editor

Dear Readers,

The industrial revolutions that took place in the last 2-3 centuries have transformed the global economy. In the contemporary era, the fourth industrial revolution is taking place, and it is digital. Now if we examine the current trajectory of Pakistan in tech adoption, we see that in the last few years our country has also managed to realize the immense potential it possesses in the IT and telecom sector. In our article, "How Pakistan's IT Industry has become an Attractive Investment Destination" we have tried to dig deeper to analyze Pakistan's position in global tech advancement.

Spectrum is the main factor in driving cellular growth but unfortunately, it is always neglected in Pakistan. While the performance of operators is not up to the standard, the question arises: "Who is to Blame"? The operators who are trying to provide cost-effective services to their customers or our regulatory authority who are unable to conduct spectrum auction for 3.5 years? Find the answer in our article, "PTA's Failure to Conduct Spectrum Auction in last 3.5 Years results in QoS Deterioration."

Although the government is fully aware of the importance of improvement in the IT & telecom sector. But when it comes to the taxation and budget policy, things always do not go in the favor of everyone; resulting in a conflict between the government and the industry. We have tried explaining the delicacies and importance of the upcoming budget in our article, "The upcoming budget 2021-2022: what does it mean for the IT and Telecom Sector?"

Recently, Julian Gorman, the Head of Asia Pacific for the GSMA shared his insight regarding the growth of the digital transformation in Pakistan in an article that is also part of our current issue of the Phone world Magazine. In addition to that, we also have articles on some of the trending topics including Crypto currency, telecom frauds, and the e-commerce market of Pakistan, 5G, and more.

Like always, our regular sections, including phone reviews, Smart moves, TVC reviews, top applications, and smartphone wishlist are also part of our current issue. We always try to bring something new and exciting for our readers and hope you guys will appreciate our efforts and give us your feedback to improve further.

We hope you are staying healthy and safe.  
Enjoy Reading....!!!

Thank you,  
*Adnan Khan*  
Managing Editor

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# How Pakistan's IT Industry Has Become an Attractive Investment Destination

The industrial revolutions that took place in the last 2-3 centuries have transformed the global economy. In the contemporary era, the fourth industrial revolution is taking place, and it is digital. Digitization has become the epitome of the modern economy. If you have noted most billionaires of this century belong to the tech industry like Jeff Bezos, Bill Gates, and many others. All around the globe, in every company, everything is getting digitized. The growth in technology is making us faster, more efficient, and opening up new avenues of innovation.

Keeping this in mind, we can claim that the adoption of modern technology is need of the time. Now if we examine the current trajectory of Pakistan in tech adoption, we see that in the last few years our country has also managed to realize the immense potential it possesses in the IT and telecom sector.

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## Pakistan has witnessed the largest-ever number of IT companies registered during the current year

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It is evident through the growth of the IT industry in the last year. According to an official of the government, Pakistan has witnessed the largest-ever number of IT companies registered during the current year. The unprecedented growth ICT industry stems from a number of factor which mainly include:

### Awareness through International Media:

Through the electronic and social media platforms, individuals along with the government have realized the immense potential of the ICT industry which has helped many other nations around us in transforming their economy. We can take the example of our neighbor India which has a mammoth ICT industry and it undoubtedly helped the country to revive its economy.

The Pakistani tech market is still an untapped market with many opportunities that are now being cashed in.

### The wide proliferation of new Start-ups:

If we look at the past 2 years, we witness the vigorous growth in tech startups of Pakistan. The rapid proliferation of tech startups has added to the growth trajectory of already established IT companies operating in Pakistan. The startup culture is spreading at a breakneck speed, with success stories coming from every corner of the country. Therefore, the rate at which these new tech startups are emerging led to the growth of the overall ICT industry as well.

---

### The rapid proliferation of tech startups has added to the growth trajectory of already established IT companies operating in Pakistan

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## Expansion of LTE and monetization services:

Pakistan's far-flung areas didn't have internet services for a long period of time due to which they couldn't stay inter-connected and weren't able to tap the potential of the ICT sector. But in the recent 3-4 years, things have changed drastically. Now the LTE services have reached the most remote areas of Pakistan which have made the country inter-connected than ever before. As recently I was going through the news that then K2 base camp areas have now got internet access and phone coverage. So you can imagine the widespread of LTE services.

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**Banking has become a normal thing with JazzCash, Easypaisa, etc. penetrating into the market with more people creating branchless banking accounts**

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In addition to that, branchless banking has also become a normal thing with JazzCash, Easypaisa, etc. penetrating into the market with more people creating branchless banking accounts. Moreover, it has enabled the freelancers' community to directly receive their payments through their international clients via these branchless banking services.

So now people don't get stuck into the mess of making bank or PayPal accounts. The citizens just require a smartphone and internet connection to become account holders. So these monetization services have played a vital role in the growth of the ICT industry.

## Affordability and naturally resourceful:

According to the World Economic Forum (WEF), Pakistan is ranked among the best countries in terms of the affordability of ICT services. The report also sheds light on the precious human and knowledge capital potential with 64 percent of the total population of the country belonging to the under-29 age group and around 30 percent in the 15 to 29 age group. Also, Pakistan is ranked 5th most financially attractive location in the globe for offshore services and 3rd most popular country for freelancing, according to A.T. Kearney's Global Services Location Index 2019.

---

**According to the World Economic Forum, Pakistan is ranked among the best countries in terms of the affordability of ICT services**

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## Government incentives:

We also need to laud the effort of the government that has taken some significant steps to further ramp up the local and foreign investment towards the IT industry in Pakistan. Some of these steps include 100 percent repatriation of dividends and ease of investment for foreign IT investors. The government has also made sure that 100 percent equity is given to the foreign investor without any sort of biasness.

Furthermore, a three-year tax holiday is provided for IT startups with no minimum tax and withholding tax. In addition to that, zero income tax will be applicable on IT exports till June 2025. Also, there will be no tax applicable on venture capital funds till 2024.

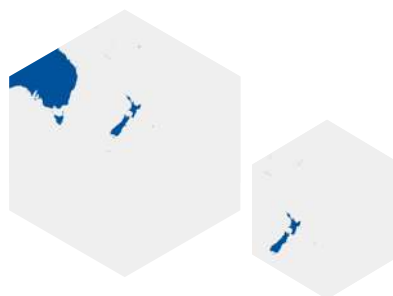
Moreover, accelerated depreciation of 30 percent is allowed on the computer and IT equipment. The government has also started an Export Finance Scheme with the transaction-based facility, whereby Firm Export Order can be obtained for a period of six months. The government is also planning to introduce a new type of loan to meet the specific needs of startup companies keeping in view the problems they are facing in raising capital, in the shape of convertible debt, from the foreign countries under current regulations. A firm may raise funds from abroad in the form of convertible debt i.e. the lender shall have the option to convert the loan into the equity of the borrowing company, subject to the terms and conditions.

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**The government is planning to introduce a new type of loan to meet the specific needs of startup companies keeping in view the problems they are facing in raising capital**

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These all incentives have encouraged many investors to set up IT companies in the country at a rapid pace.



So the next thing required from the government is to set up awareness campaigns and facilitate smaller cities in setting up IT industries, which can certainly boost the economy of the country.

### How the tide is turning for the ICT industry of Pakistan

According to a source, Pakistan's IT and ITeS services are now being exported to more than 121 destinations around the world. Pakistan Software Export Board (PSEB) is a government body whose objective is to promote Pakistan's IT Industry in local and global markets. The Managing Director of PSEB Osman Nasir said that the board had done its best endeavors to support the IT Industry with a bigger aim to increase the exports of IT products and services from Pakistan.

### The metropolitan city Karachi, along with Islamabad and Lahore have become Pakistan's major tech centers and leading the IT industry's exports growth

The metropolitan city Karachi, along with Islamabad and Lahore have become Pakistan's major tech centers and leading the IT industry's exports growth. In addition to that, operations are being carried out with full zeal and zest to set up Software Technology Parks in Quetta, Faisalabad, Bannu, Swat, Sukkur, and Khairpur in the initial phase. Another thing is Pakistan's ICT industry export remittances, which include telecommunication, computer, and information services. According to a report, over the course of the last 5 years, IT export remittances have also risen to a staggering 137 percent at a compound annual growth rate (CAGR) of 18.85 percent which can be doubled in the next 5 years. Like if we just look at the trajectory of last year, the export remittances have reached \$1.298 billion at a growth rate of 41.4 percent during July – February of FY 2020-21, in contrast to \$917.840 million during the July – February of FY 2019-20.

### The export remittances have reached \$1.298 billion at a growth rate of 41.4 percent during July – February of FY 2020-21, in contrast to \$917.840 million during the July – February of FY 2019-20

Pakistan's export of Information Communication Technology (ICT) witnessed a growth of 46 percent during the first 10 months of 2020-21. In addition to that, the value of ICT export reached \$1.70 billion as compared to \$1.17bn in 10MFY20. If we look at the month of April, the exports of ICT grew by 66pc to \$196m as compared to \$118m in April 2020. There are more than 5,200 IT and ITeS companies currently registered with the Securities and Exchange Commission of Pakistan (SECP), which includes both domestic and export-oriented enterprises.

More recently, the federal minister for IT and Telecommunication Syed Amin ul Haq laid the cornerstone for the establishment of the first IT Park in Islamabad with the cooperation of South Korea. The completion of IT Park will ramp up IT exports and will provide employment to skilled workers. About 120 small and medium start-up IT companies will be offered space in the IT Park.

### Japan International Cooperation Agency has regarded Pakistan as the next powerhouse of the information and communication technology sector as the country's IT exports have increased six times in over a decade

Furthermore, Japan International Cooperation Agency (JICA) has regarded Pakistan as the next powerhouse of the information and communication technology (ICT) sector as the country's IT exports have increased six times in over a decade.

In its latest report, the state-run JICA said that the digital Pakistan policy 2018 offers a wide range of incentives to the IT sector which is one of the primary driving factors in this trend. Pakistan has achieved the fastest growth in South Asia in terms of ICT exports. According to a report by the JICA, Pakistan is a famous international outsourcing destination because of its price competitiveness and the presence of a large number of active freelancers.

### The State Bank of Pakistan also proposed changes to the existing foreign exchange regulations related to borrowing from foreign countries in a bid to support those fintech and startup companies that want to invest in the form of convertible debt instead of directly as equity

The ICT sector in Pakistan has shown impressive growth in the last few years. The country's ICT exports have risen by 40 percent in the last 6 months only which must be lauded. The State Bank of Pakistan (SBP) also proposed changes to the existing foreign exchange regulations related to borrowing from foreign countries in a bid to support those fintech and startup companies that want to invest in the form of convertible debt instead of directly as equity. With the continued progress and advancement of Pakistan's ecosystem, the IT industry might as well jump to the top in earning foreign exchange for Pakistan from export revenues and foreign direct investments.







## vivo X60 Pro is Here to Win Hearts

### *with Its Ultra-Thin Quad-Curve Design and Premium Aesthetics*

Smartphones have evolved from being mere voice-communication devices to accessories that resonate with one's style and personality. As a customer-centric brand, vivo is all about giving people what they want! With every new launch, the smartphone brand takes the designing, innovation, and creativity up a notch to match the ever-changing needs of the consumers.

Global leading smartphone brand vivo recognizes the importance of innovative features and unique designs in enhancing user experience. The brand understands the importance of capturing the perfect moments at the perfect time, making it your ideal companion. Therefore, vivo has delivered a flagship smartphone that not only fulfils all your photography needs but also provides a slim and elegant design aesthetic – the perfect blend of style and sleekness.

Thus, the vivo X60 Pro comes with an eye-catching ergonomic design, immersive display, and several other innovative industry-leading features. Here are some of the features that set this masterpiece apart from other smartphones in the league:

#### **Ultra-Thin Quad-Curve Design & Premium Aesthetics**

vivo has officially launched a new smartphone, vivo X60 Pro, the first X60 series smartphone to arrive in Pakistan.

The cutting-edge design from vivo with maximum imaging quality co-engineered by ZEISS, signifies vivo's commitment to delivering the best of technology while keeping the style quotient intact.

The X60 Pro's Ultra-Thin Quad-Curve Design is only 7.59mm thick, offering a comfortable in-hand feel. In the design for the 48MP Gimbal + 13MP Wide-Angle + 13MP Portrait rear camera, about one-third of the mainboard has been hollowed out to present a slimmer device. On this basis, the PCB layout has also been optimized for the ultimate configuration, allowing for a larger battery capacity to be housed within the chassis. The all-new X60 Pro displays elegant 3D curvature with futuristic aesthetics and boasts super-slim curves and a sleek silhouette, carrying on the elegance of the X series. The contours are more captivating than ever and adorned with a choker – a beautiful band that runs along the top edge to complete a picture of grace with a sophisticated touch and feel. Thanks to the X60 Pro, your aesthetic game is on point now!

#### **New Dual Tone Step**

The rear cameras encased within the vivo X60 Pro come with New Dual-Tone Step, an ingenious layered design that prevents an otherwise bulky and massive look. Fashioned in thin cascading panels that rise in subtle steps, the New Dual-Tone Step integrates all the professional-grade imaging technologies and photography features co-engineered with ZEISS.

The front camera is also smartly placed in the centre rather than the sides to provide a better experience and avoid angled pictures and videos.

The elegant 3D curves from the front to the back definitely give the phone an aesthetic edge. With the vivo-ZEISS co-engineered imaging system, the X60 Pro has one of the best camera technologies available out there, all packed into a slim and sleek body, making the overall appearance more structured and layered.

#### **Beautiful Colour Schemes**

The all-new X60 Pro flaunts colour palettes inspired by the summer bloom, available in Blue and Black. With Blue, users can experience the visual radiance and feel the eternal hope of a sunrise, comprised of soft blue and purple hues that peek through the morning mist. Black is a powerful colourway that envelopes consumers in the tranquil summer night sky, allowing them to feel the fervour and passion hidden within – the energy of life.

All these above features of X60 Pro have re-defined the look and feel of a premium-range smartphone with its ever-stunning design and high-on-fashion style quotient. It is an all-rounder that you surely cannot miss!

The X60 Pro comes with vivo ZEISS co-engineered technology and will provide customers with a professional-grade photography experience with super clarity and unparalleled sharpness, ensuring a jaw-dropping performance, display, and photography. Go grab yours at an attractive price of Rs. 129,999.

# Xiaomi's POCO M3 Pro 5G

## Poco's Entry into the Budget 5G Smartphone Arena

Xiaomi's subsidiary Poco has entered the Pakistani market in the recent era. It's comparatively new in the market but it still has managed to make its presence feel in the local market. It has released smartphones in both entry-level and budget categories. On different platforms, people have lauded the newly launched smartphones from Poco. The reasons for this acknowledgment are prolific specs at a budget price. However, there are some criticism for its bulky design, and the company is modifying its upcoming smartphones like the Poco M3 pro 5G. A 4G version of Poco M3 was rolled out earlier this year which was appreciated by many apart from its bulky design. Though now its 5G version has entered into the market with a smarter outlook. So let's take a look at the full review to know more about Poco M3 5G.

### Design:

Poco has modified the M3 Pro's design and it's much different from the basic M3 version. On the rear side, the camera lens module is still a vertical triple camera setup, but the bulky rectangular design has been removed because of resentment from some users. The M3 Pro has a much better design, with two rounded rectangles near the camera lens and the POCO logo inside. The leather-type material on the rear cover has been replaced with a mirror-reflective coating to give it a more glossy and catchy look. The edges are much sleeker with a SIM tray on the left edge along and a power button along with volume keys on the right edge. Moreover, on the upper edge, there is a headphone jack and speakers while on the downside, a charging port is provided. So, overall I would say there is much improvement in the design of M3 pro 5G as compared to the basic M3 version.

### Display

Though the M3 Pro has arrived with some screen upgrades it is still an LCD 1080P screen which is a little bit disappointing. However, the refresh rate of the screen is increased to 90Hz and a hole-punch screen has been rendered instead of a dot drop display. The camera hole size is a bit larger as compared to the camera quality. Overall, I would say that M3 pro features just a mediocre display. But as it is only a 5G entry phone with a 90Hz screen, so it can easily compete with all other phones of this price bracket.



### Camera:

Just like the basic M3 version, the M3 pro 5G features a 48MP main camera along with a depth of field lens and a macro lens. There is no ultra-wide lens which is a bit disappointing. Comparatively, the photos taken from the camera are realistic however the colors of the camera tend to spill over when AI is turned on. Maybe, POCO only focused on the brighter lights as they are more catchy to the eye. The main camera allows you to record video in 1080p@30fps which is considered a plus point.

In my point of view, the front camera of the M3 pro is the best attribute of the phone among others. The 8MP selfie camera allows you to take some remarkable photos. The colors are just okay but there is much detail, the images are sharp and the contrast is superb as well. The front camera also allows you to record video in 1080p@30fps.

### Performance:

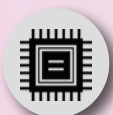
The M3 Pro runs on Android 11 which is the latest version of Android with MIUI 12 skin. The Poco launcher uses a different system theme and icons but you can change it to your liking. Moreover, the M3 pro features a powerful MediaTek MT6833 Dimensity 700 5G chipset which is based on the 7nm technology. The Dimensity 700 5G chip is equipped with an excellent octa-core processor with 2x 2.2GHz Cortex-A76 and 6x 2.0GHz Cortex-A55. The GPU installed in the smartphone is Mali-G57 MC2 along with a 5G modem. The overall performance of the phone is quite exhilarating compared to other phones of this price category.

## POCO M3 Pro 5G

90Hz Full HD Display . Dimensity 700 5G . 5000 mAh Battery



PKR. 32,999/-



128GB Built-in,  
6GB RAM



(Li-Po Non removable),  
5000 mAh



6.5 Inches



Rear Camera:  
48MP+2MP+2MP

Front Camera: 8MP

### Pros

- Good Selfie Camera
- 90Hz display
- Android 11
- Impressive battery life
- Smooth MIUI 12

### Cons

- Average rear camera
- No 4K video recording

### Verdict

Poco M3 pro 5G is a good entry-level 5G smartphone and will prove to be a strong contender in this price range.



# Health Implications of 5G: Truth and Lies

**5**G technology! Probably you are hearing this word for the thousandth time this year. Aren't you? Well, everybody is curious to know everything about 5G technology. What are the aspects of 5G technology and how it is going to change the present world? 5G technology is not a thing of the past and is recently introduced by the tech giant companies. It has been switched on in different parts of the United Kingdom and other European countries. Despite being a popular and hyped topic, the Government of Pakistan is facing issues in its implementation triggered by various factors, the 'health concern' being a recent cause.

**Despite being a popular and hyped topic, the Government of Pakistan is facing issues in its implementation triggered by various factors, the 'health concern' being a recent cause**

Recently on April 5th the Sindh High Court (SHC) issued a notice to PTA to submit the response of a petition against the health risks of 5G technology in Pakistan.

The petition was heard by Justice Muhammad Ali Mazhar and Justice Amjad Ali Sahito. When the leader of the bench, Justice Muhammad Ali Mazhar asked if the Pakistani Government has issued the 5G license or not, the petitioner's reply was 'No.' It was mentioned in the petition that 5G mobile technology poses health concerns and also quite negative towards the ecosystem. The bench decided to proceed after the submission of PTA's response on this.

**On April 5th the Sindh High Court issued a notice to PTA to submit the response of a petition against the health risks of 5G technology in Pakistan**

The government has already initiated the process of hiring professional consultant for 'Spectrum Auction 2020-21.' But is 5G technology actually dangerous? Do 5G technology affects negatively on human lives? Let's find out.

## What is 5G Cellular Technology?

The 5G technology was introduced back in the year 2019. Till now, it has been making headlines and has had very confusing reviews among people throughout the world. 5G is basically the fifth generation of technology for all the broadband cellular networks including smartphones, the internet of things, cable internet, and all the computing systems. The error rate and the latency of 5G technology are much less than the previous generations. As far as speed is concerned, it is much faster than the other technologies. The idea of the world becoming a global village is much clearer with the use of 5G technology. It is launched by cellular phone companies and is spreading like a bush fire. People are converting to 5G where the network is available like Switzerland, UK, Germany, and many other countries.

**The idea of the world becoming a global village is much clearer with the use of 5G technology**

---

**Pakistan will get access to the 5G technology by 2022-23. It will be a great thing to keep up with the world as the latest technology is the key to countries IT success and Industrial progress**

---

Pakistan will get access to the 5G technology by 2022-23. It will be a great thing to keep up with the world as the latest technology is the key to IT success and industrial progress.

**How is 5G Different from the Previous Generations of Technologies?**

5G technology offers you really fast services. By saying really fast we mean, it is up to 100 times more powerful than the 4G technology. Imagine, the movie that takes 50 minutes to download will take only nine minutes through 5G technology. Isn't it amazing? The speed of the 5G network is in gigabit per second (Gbps) as compared to 4G's megabit per second (Mbps). Talking about the bandwidth, 5G technology allows a greater number of devices along with the connected vehicles and much more. The efficiency of sharing information in remote areas or the places where you find difficulty in getting the signals like airports will be much better with 5G technology. Don't you want that? Sure, you do as we do too.

---

**The efficiency of sharing information in remote areas or the places where you find difficulty in getting the signals like airports will be much better with 5G technology**

---

5G cellular technology is a big yes when you talk about edge computing. It brings quite critical resources and processes pretty close to the user. By this benefit, the machine itself consumes very little energy relative to using 4G or other technologies.

It expands the Internet of Things, which means every device and gadget will connect itself somehow to the other thing. Even the wearables, cars, refrigerators and laptops, all will have a one sharing point through 5G networking.

**Is 5G an Evolution of Concern?**

Well, it is a fact that 5G is coming, believe it or not, accept it or not. Scientists say it is very early to say something seriously negative about the hyped 5G technology yet because there is so much information yet to be discovered. According to Professor Hans Kromhout of Utrecht University, Netherlands, "It would be good if the institutions invest more in the research of this field." But something is making people scratch their heads when they were asked about 5G. Whether it is a dangerous evolution of technology or not, it is still debatable.

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**There is a conspiracy theory against Bill Gates and many tech giants that they are trying to control the world by implementing the 5G cellular technology**

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The question remain the same, is the evolution of this new technology a bad impression on the human world? The scientist does not clearly state the potential concerns of the network, however, they say it's 'complicated. What degree of complicating? That question is yet to be answered. Recently, we've seen the sudden rage of people where they link 5G technology as the actual cause of the Covid-19 pandemic. There is a conspiracy theory against Bill Gates and many tech giants that they are trying to control the world by implementing the 5G cellular technology. People believe they are conducting some experimental trials and testing out the 5G services in the world. The group was saying there is no coronavirus and that tech companies are hiding the truth behind this fake pandemic. It was just a conspiracy by some groups and rejected by the rest of the people.

We all have seen that there are many countries where there are so many cases of coronavirus, but no 5G. It means all that was just a fuss and chaos among some people that came up with such theories.

**What are the Actual Health Concerns of 5G?**

First of all, like other technologies, 5G works by emitting radiations. According to the spectrum, 5G radiations are non-ionizing radiations. They have no negative effect at high frequencies. All the other previous networks including 3G and 4G falls in the same category.





The world is assuming that the 5G technology is damaging to the DNA structures and causes cancer. Let us make it clear that all such things are untrue. The non-ionizing radiations do not have the ability to destroy human programming through DNA damage. The World Health Organization (WHO) in 2014 clearly stated that there were no negative health aspects reported by using mobile phones and the latest technology.

---

**The World Health Organization in 2014 clearly stated that there were no negative health aspects reported by using mobile phones and the latest technology**

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According to International Commission on Non-Ionizing Radiation Protection (ICNIRP), there is not a single case of serious health effects reported since the 5G installation. The organization makes guidelines for using mobile networking and the effect of radiations. The chairperson of ICNIRP, Dr. Eric van Rongen claimed that “the guidelines have been developed after a thorough review of all relevant scientific literature, scientific workshops, and an extensive public consultation process.”

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**Different trials and experiments were done to check the connection between cancer and non-ionizing radiation. At high frequencies, the non-ionizing 5G radiations do not penetrate the cells of the body**

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As far as the cancer is concerned, different trials and experiments were done to check the connection between cancer and non-ionizing radiation. At high frequencies, the non-ionizing 5G radiations do not penetrate the cells of the body. According to the results, there is nothing seen that such radiations increase the cell size or cause cancer risk.

However, the excessive usage of mobile phones and spending time on screens can affect nerves, eyesight, cause back pains, neck pains, and other minor concerns. Pakistan has almost 85 million 3G/4G users, if the 5G system gets its way to Pakistan, we believe there will be nothing wrong with it. Adapting the latest technologies means the country is progressing and on its way to development.

### Take Away

A crazy number of people are scared of the cancer-causing effect of 5G technology which is totally untrue. If we talk about previous generations of technology, they also carry the same radiations, and if 5G is cancer-causing it means every other generation is too. Worrying about the outcomes of using 5G technology is useless. The technology is rather the best version of its generation and will help society in lots of good ways.

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**If we talk about previous generations of technology, they also carry the same radiations, and if 5G is cancer-causing it means every other generation is too**

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5G technology does not pose serious health implications on humans and animals. However, the duration of mobile and device usage must be limited. It is the thing that should be kept in mind and so many scientists and doctors are saying since the technology is advancing. You use technology for your benefit, but exploitation of everything is bad or you can say that excess of everything is bad. Up till now, there have been no shreds of evidence found that people die or get diseases by using 5G technology.

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**5G technology does not pose serious health implications on humans and animals. However, the duration of mobile and device usage must be limited**

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# Challenge your boundaries with Redmi Note 10 5G and Redmi Note 10S

Global technology leader Xiaomi has announced that it is expanding its lineup of mid-range smartphone devices to include Redmi Note 10S and Redmi Note 10 5G. From The 64MP Adventurer to The 5G Pioneer, these two models continue Xiaomi's commitment to providing the latest smartphone advancements to all and redefining the mid-range king in the industry.

## **Redmi Note 10 5G:** *Delivering an accessible 5G model for all*

5G is the name of the game. With this new model, Xiaomi delivers one of the most affordable 5G smartphones in the business, while refusing to cut any corners. The MediaTek Dimensity 700 with its 7nm manufacturing node, Dual 5G SIM supported system and integrated modem provides flagship-level power-efficiency.

Featuring a captivating and immersive 90Hz 6.5" AdaptiveSync DotDisplay, Redmi Note 10 5G is capable of adjusting to content automatically - from streaming video at 30Hz\* or 60Hz to scrolling social media feeds or gaming at up to 90Hz - it guarantees a smooth experience and optimum battery usage.

Redmi Note 10 5G sports a solid camera system with 48MP main camera, 2MP macro camera and 2MP depth sensor which let you snap good photos with ease. Moreover, its 5,000mAh (typ) battery with 18W fast charging support making it an ideal companion for daily usage. Redmi Note 10 5G comes in four captivating colors: Chrome Silver, Graphite Gray, Nighttime Blue and Aurora Green.

Redmi Note 10 5G comes in two variants – 4GB+128GB starting at PKR 33,999 and 6GB+128GB starting at PKR 35,999.

## **Redmi Note 10S:** *Continuing to reinvent the mid-range smartphone experience*

Both providing optimal viewing experiences, Redmi Note 10S is equipped with a 6.43" AMOLED DotDisplay. As with the Redmi Note 10 Pro, the device touts a seamless redesign and updates including an Arc side fingerprint sensor, 33W fast charging, a 360-degree light sensor setup and immersive dual speakers. Redmi Note 10S comes in three classic colors: Onxy Gray, Pebble White and Ocean Blue.

Redmi Note 10S is ready to capture all life's moments with their quad camera setups featuring 8MP ultra-wide angle camera for group shots, 2MP macro camera for close-ups and a 2MP depth sensor for supporting portraits. The 64MP Redmi Note 10S main camera marks a tremendous improvement from the previous generation and even smashes some flagships in terms of pixels. The device is equipped with Pro time-lapse capabilities, this marks an addition to the previous slow motion, night mode and regular time-lapse features.

Featuring the powerful MediaTek Helio G95, Redmi Note 10S challenges with faster gaming, improved performance and GPU, clocking speeds of up to 900MHz.

Redmi Note 10S comes in two variants – 6GB+128GB starting at PKR 37,999 and 8GB+128GB at 39,999.

\*Feature will arrive via OTA update

\*5G connectivity will vary based on region and local operator capabilities.



# The Rise of Telecom Frauds in Pakistan; What Needs To Be Done

In this digital age, the telecom sector is actively facilitating the people to get connected with the rest of the World. While at the same time, this great facility is creating troubles for the people in unexpected ways. These phone systems are frequently interconnected with the corporate computer network, and often become a great reason of a security vulnerability. Telecom fraud represents a serious threat to the telecommunication industry. It refers to the abuse of telecommunications products (mainly telephones and cell phones) or services with the intention of illegally acquiring money from a communication service provider or its customers. Hackers can get access to the phone systems via the customer's network or the telecommunications service provider illegally. Once the hackers and the fraudsters gain access, they manipulate the phone system to make unauthorized long-distance calls for criminal activities.

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**Telecom fraud refers to the abuse of telecommunications products (mainly telephones and cell phones) or services with the intention of illegally acquiring money from a communication service provider or its customers**

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The telecom industry leads the way in ensuring that consumers receive mobile, data, and satellite communications without any delay and glitches. The data is so valuable, but it is no wonder that fraudsters are continually coming up with new ways of acquiring it.

The fraudsters use different ways of telecom fraud to carry out their illegal activities.

Hackers can enter into the phone network through voicemail system, improperly discarded SIM cards, and pre-paid calling cards. After getting the access, the hackers use the phone system for making unauthorized calls, often to high-cost locations. Telecom frauds also involve identity theft or the use of fake identities at the point of sale, that enable either the fraudulent use of telecom services or the use of such services for subsequent fraudulent activities.

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Once the fraudsters get the fake subscription, they will get access to a wide range of value-added services that include call-related, TV, and the internet, and new mobile financial services like mobile banking and mobile payment.

The risk management and analytics expert Neural Technologies reported that there are over 200 types of telecommunication fraud that are related to identity theft or ID fraud. In Pakistan, Telecom fraud is increasing at an appalling rate and has become one of the most enormous sources of revenue loss. Two-thirds of all fraud losses, especially voice fraud losses, are tied to international traffic.

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Every year, Telecom frauds continue accounting for more fraud complaints. New technology has led to an onslaught of new telecom fraud tactics. The latest schemes are difficult for tracking and investigating due to their frequency, layers of anonymity, and global nature. Recently, the Federal Investigation Agency (FIA) has arrested the international gangs belonging to different countries of the world involved in depriving unsuspecting citizens of their valuable assets and cash worth millions.

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According to FIA, the authorities of the Cyber Crime Wing received 100,000 complaints regarding the telecom frauds committed by national and international fraudsters.

These gangs looted people by using various tactics and their crime modes varied from case to case. In one case a foreign lady contacted a person through social media platforms and expressed her desire to marry the person, while in other cases the hacker became the representative of some international humanitarian agencies or law enforcement departments and expressed the desire to invest the millions of US dollars through the complainant. Some victims were asked to deposit money in bank accounts for clearance from Customs, UN, Anti-Terrorism Department to get NOC for dispatching the promised money or parcel containing valuables.

Some people were also defrauded by fake sale purchases of items that were even unsent after receiving the payments while some were defrauded by offering fake jobs. These victims were contacted by the hackers via emails, WhatsApp, Facebook, telephones, spoofed numbers, and social media apps. All these criminal activities resulted in the loss of more than forty (40) million Pak rupees.




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**In telecoms, the trade-off for greater convenience and versatility has very often increased fraud and lower security**

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After the investigation, the CCW arrested the accused by tracing back the money trail and the digital footprints by analyzing the modus operandi, medium, bank accounts, phone and SIMS, spoofed number NADRA, passport and travel history records. The local police and CCW staff apprehended the scammers with the help of Digital tracking. We love technological advances but unfortunately, often fail to see the downsides of its progress. And in telecoms, the trade-off for greater convenience and versatility has very often increased fraud and lower security. Telecommunications fraud brings a grave threat to the telecommunication industry.





## What needs to be done?

The scammers target people belonging to any region and background. They convince the people smartly that they start believing without any verification. These scammers create believable stories that convince the people easily to give them more money or personal details without any hesitation and investigation.

**It is important to spread awareness among the people on how to protect them from scammers and what precautionary measures they should take before making any kind of decision**

It is important to spread awareness among the people on how to protect them from scammers and what precautionary measures they should take before making any kind of decision.



## The precautionary measure an individual should take:

- Avoid suspicious texts.
  - Do not click on links or attachments in SMS – ignore and report.
  - Do not share your personal details or money details without any verification on any random phone call.
  - Never send money or give ATM or PIN details, online account details, or copies of personal documents to anyone you don't know.
  - You should notify your friends and family about scams.
  - If you are not sure you're being scammed, stop sending money. Scammers will keep asking for more money until you stop.
  - In case you have sent money or shared your banking details with a scammer, contact your bank & police immediately. They may be able to stop a transaction or close your account if the scammer has your account details. Register the Report against scammers to the authorities.
1. First you need to report the scam number to your service provider (Jazz, Zong, Telenor, Ufone & PTCL) to block the suspected number.
  2. In case, you are not getting the response from your service provider, you can also report the number to PTA for blocking by dialing 0800-55055 or visiting [HTTPS://complaint.pta.gov.pk/RegisterComplaint](https://complaint.pta.gov.pk/RegisterComplaint)
  3. PTA will block such numbers and mobile device IMEI.
- Repeat offenses from the same person, if he/she is using a different number, will result in blacklisting of such CNICs for issuance of new SIMs/connection.

- If a financial/banking fraud has occurred then, you should contact State Bank of Pakistan: [cpd.helpdesk@sbp.org.pk](mailto:cpd.helpdesk@sbp.org.pk) on an immediate basis.
- For further serious investigation, you can contact FIA helpline: 051 9106384

The telecommunication system has become the backbone for development and a platform for good governance. Unfortunately, in Pakistan, the telecommunication system security is neither well understood nor managed effectively. After several years of telecommunication system existence in the country, security concerns are becoming a threat to its existence and operations. Telecom fraud is a fast-growing field of criminal activity costing the industry billion dollars a year. Considered by criminals as a low-risk alternative to traditional methods of financial crime they continue to think of new ways to scam and prey upon consumers and the communication networks they depend upon. All other developed and developing countries of the world have policies regulating telecommunication operations and policies to ensure consumer safety. Well, the problem is not only to design the policies but the biggest challenge is how efficiently and effectively these policies are implemented. These challenges have created room for fraudsters to commit fraud using telecom platforms. This is an area where Pakistan is much behind the advanced countries hence, unable to reap the full benefits or telecom modernization.

**Considered by criminals as a low-risk alternative to traditional methods of financial crime they continue to think of new ways to scam and prey upon consumers and the communication networks**



realme 8 | 8 Pro

108MP. Capture Infinity.



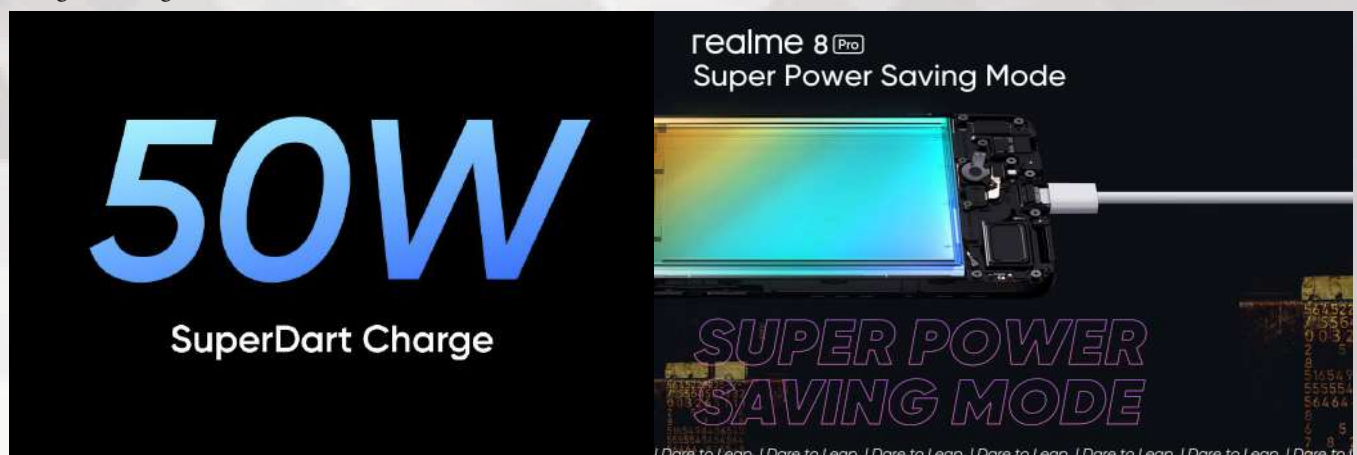
## The realme 8 Series has a Battery That Gets Powered Faster with the 50W SuperDart Charge and Runs Longer

With multiple advancements in technology, lives have become quite fast-paced. These prompt lives need tasks to be done speedily. As smartphones are the most used devices, their slow charging can sometimes create a hindrance to your daily performance. All set to go to work and your phone is dead? The whole day's mood gets ruined. Mobile charging can be a major issue for many be it students with their online classes, or your business meeting, or your long-awaited video call with loved ones.

Smartphones have evolved a lot in these past few years. Be it the designs, battery timing, storage, camera, or charging, many companies have tried to bring solutions for all. Charging has come up as one of the major issues, but realme introduced superfast charging technology in its latest devices for a convenient user experience. The realme 8 series comes with two amazing devices realme 8 and realme 8 Pro. Among them, the realme 8 Pro features the 50W SuperDart Charge.

The 50W SuperDart charge of realme 8 Pro helps charge your phone to 100% in just 47 minutes. This means it gets 50% in only 17 minutes. It utilizes high-voltage charge pump technology and realizes 97% charging power efficiency and supports 5 Dimension Charge Protection. The combination of 50W SuperDart Charge with the 4,500 mAh Massive Battery makes realme 8 Pro a powerful phone.

On the other hand, realme 8 comes with an upgraded 30W Dart Charge. This charges the 5,000 mAh battery to 100% in 65 minutes and up to 50% in only 26 minutes. The charging algorithm developed for the realme 8 includes five layers of security protection which provide hardware-level security protection for the entire charging process. realme 8 also supports a 15W PD charge, making it even more versatile.



All in all, both phones support superfast charging in their capacity. The 50W realme 8 Pro is accompanied by a 108MP Ultra Quad Camera, 4,500 mAh Battery, and 8GB + 128GB massive storage. The 30W realme 8 also supports a 64MP Quad Camera, 5,000 mAh Battery, and MediaTek Helio G95 Gaming Processor. realme has brought a firm lineup with these amazing features which have taken the market by storm. Both devices made great pre-order records and are now available for sale in the market. So hurry up and get your superfast charging devices leaving all the last-minute hassles in the past!



Julian Gorman  
Head of Asia Pacific, GSMA



# PAKISTAN'S DIGITAL TRANSFORMATION

*Mobile is at the heart of Pakistan's digitisation journey*

Digital technologies are set to transform the way people live and work in Pakistan. As we saw in the GSMA 2020 Digital Societies Report, which tracks the progress of 11 focus countries in Asia Pacific, Pakistan is advancing its societal, economic and digital ambition, as outlined in Digital Pakistan Vision. Indeed, our report's digital society index tracked Pakistan in achieving one of the highest increases in its overall score.

By 2023, the economic contribution of the mobile industry in Pakistan is expected to reach \$24 billion, accounting for 6.6% of GDP. In an effort to stimulate this growth, Pakistan has recently moved forward with significant mobile services tax reforms.

Digital platforms, such as mobile services, have become the primary channel for a growing number of citizens to access public and private services, especially during the pandemic.

Behind this development are the vital roles played by National and provincial policymakers, the Pakistan Telecommunication Authority (PTA) and Ministry of Information Technology and Telecommunication (MoITT), who have helped increase access for citizens high-quality connectivity and digital services. This has cultivated digital inclusion, e-commerce and a general entrepreneurial spirit for the people of Pakistan.





With a population of approximately 220 million, and more than 100 million people under the age of 25, Pakistan is well positioned to play a growing role in the global economy over the next decade. Pakistan's mobile market has experienced rapid development over the last decade, playing a significant role in Pakistan's growth. In 2018, the total economic contribution of the mobile ecosystem was worth \$16.7 billion, equivalent to 5.4% of GDP.

In a post pandemic world, Industry 4.0 – otherwise known as the fourth industrial revolution – will help economies recover and become more resilient to future shocks. And technology, supported by mobile networks, will be at the core of Pakistan's industrial development as it works to launch the fourth industrial revolution.

Pakistan's recent policy actions offers a glimpse of this potential. But authorities must act together, creating the business environment necessary to realise these goals. A whole-of-government (WGA) approach will ensure better coordination of digital transformation initiatives across the public sector, complemented by private sector investment and innovation. We believe this holistic approach is a way for emerging and transition digital societies to leapfrog bureaucratic pain points.

A whole of government approach in Pakistan creates the start of a predictable investment and flexible regulatory environment. These measures, needed to achieve the goals of Digital Pakistan, include tax reforms as well as efforts to implement Right-of-Way (RoW) infrastructure policies. The success of these efforts will be measured by their implementation, along with the growth they support in the future.

## Implementing tax reforms for industry growth and infrastructure policy

Pakistan recently approved tax reforms that will stimulate mobile industry growth. These include gradually reducing Advance Income Tax from 12.5% to 10% in the next financial bill (FY2021-22); further reducing to 8% in the 2022-23 Finance Bill; approval of harmonization /uniform rate of taxes on telecom service; withdrawal of SIM issue tax; simplification of and exemptions for withholding tax to ease doing business; reduction of minimum tax for telecom services from 8 to 3%.

In order to fully realise the benefits of these tax recommendations, the Financial Bill (FY 2021-22) must be enacted into law. Similarly, we recommend policy makers implement Right of Way (RoW) and other policies that impact the infrastructure supporting digital and mobile access. Recently, a significant milestone was reached when policy makers in Pakistan approved, for the first time, RoW infrastructure policy. We commend this move and urge that these policies are implemented quickly. As technology evolves, unforeseen challenges can arise that may not have occurred to policy makers during their inception.

## Spectrum roadmap and digital inclusion

Along with these crucial policies and regulatory modernisation initiatives, there are additional steps needed as Pakistan continues to build itself into a digital society. In particular, the development and implementation of a five-to-seven-year spectrum roadmap.

Spectrum is the foundation for mobile services. Sufficient spectrum allows mobile networks to reach even more citizens in Pakistan and offer a better quality of service.

Digital Pakistan also includes digital inclusion as one of its policy objectives. Currently, it has a 54% mobile broadband usage gap, as defined by people who live within the footprint of a mobile broadband network but do not use mobile internet. A spectrum roadmap provides stability and certainty as it helps to create a more investment-friendly environment for mobile operators looking to build 5G and 4G mobile networks.

## Industry and government stakeholders

A holistic, whole-of-Government approach speeds digitization and the adoption of new technologies in a more efficient manner. By removing barriers caused by siloed efforts from different ministries, Pakistan could more efficiently harness the capabilities of its existing 4G networks, while preparing for 5G. Another key piece in the digitization effort will be the solicitation of input from industry stakeholders.

Taken together - implementing its new laws, using a whole-of-government approach to support the digitization process, and receiving input from interested stakeholders – Pakistan is well placed to progress to a fully-fledged digital society. In doing so, it may offer its citizens the ability to learn new skills for new jobs, offer small and medium-sized enterprises access to new markets, and spur new investments into the country. This will ultimately help to meet the goals of Digital Pakistan and continue Pakistan's digital transformation.



# Crypto Is Back In The Game; How & Why?

The tremendous growth in Bitcoin's value has brought crypto currencies to the forefront of investors' minds. Bitcoin is the most valuable crypto currency at the moment, with a market capitalization of \$1 trillion. About the fact that Bitcoin is the most common crypto currency, there are over 10,000 other digital currencies currently in circulation. There are several crypto currencies available on the internet, although not all of them are as well-known as Bitcoin. Traders from all around the world are flocking to this crypto currency.

## What basically crypto currency is?

Bitcoin, block chain, ICOs, ether, and exchanges are all terms used to describe crypto currencies.

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## Crypto currency is a cryptographic commodity that can be used for online transactions or investments

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Crypto currencies (and their jargon) have caused quite a stir in the newspapers, online communities, and maybe even in your dinnertime chats, as you might have noted. Despite the hype, many people really don't get what these words mean. Crypto currency is a cryptographic commodity that can be used for online transactions or investments. You buy a coin or a token with a dollar and then deposit it in an e-wallet with a unique code. Any transaction is deposited on a public record for evidence of validity, and there is no middleman, like a government or bank, in this digital currency.

## How many crypto currencies are there?

According to CoinMarketCap.com, a market intelligence platform, more than 6,700 separate crypto currencies are exchanged openly. Crypto currencies begin growing in popularity, with initial coin offerings or ICOs, being used to raise funds. According to CoinMarketCap, the combined valuation of all crypto currencies was more than \$2.2 trillion as on April 13, 2021, and the total value of all bitcoins, the most common of crypto bagged \$1.2 Trillion.

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**According to CoinMarketCap, the combined valuation of all crypto currencies was more than \$2.2 trillion as on April 13, 2021**

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## Is Cryptocurrency Legal?

This digital currency is undoubtedly legal in most countries, while some countries have effectively restricted its use, whether it is legal in some countries is largely a matter of national sovereignty. Often, think about how to defend yourself against scammers who see crypto currency as a way to defraud investors. Buyers should be vigilant as always.

## Why crypto currency became investors' favorite investment?

Supporters see crypto currencies like Bitcoin as the money of the future, and they're rushing to purchase them until they become more expensive. One of the primary reasons why the crypto currency is so popular worldwide is that it has very low transaction fees. When you use those forms of online payment methods, you'll often be charged a lot of money. The very low fees associated with multiple crypto currencies are a much better deal for you.

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**One of the primary reasons why the crypto currency is so popular worldwide is that it has very low transaction fees**

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Another explanation why people trust crypto currencies is because they are unlinked to world governments. This ensures crypto currencies have the ability to stay secure even though a country is in chaos.

Many investors are interested in crypto currencies since they are increasing in value, yet they are uninterested in the currencies' long-term adoption as a means of money transfer.

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**Important reason why crypto currency is investors' favorite investment is the prospect for profit. If you purchase Bitcoin at a cheap price, you will be able to profit as the value increases**

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Another important reason why crypto currency is investors' favorite investment is the prospect for profit. If you purchase Bitcoin at a cheap price, you will be able to profit as the value increases.

## How crypto currency gained its momentum back after criticism?

Bitcoin is increasingly gaining in popularity as more people see it as a legitimate medium of trade or a safe haven for their money.

However, there are some disadvantages of using a digital currency. Many people are aware of its uncertainty, which has prompted investors to label it and other crypto currencies "risky" and "worthless." And now, with the recent launch of China's digital currency, things are gaining momentum again in digital currency.

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**Experts claim one of the main benefits of crypto currencies is that any transaction that has ever existed is placed on an open public ledger, making fraudulent applications virtually impossible**

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Investors are very hopeful about bitcoin's potential growth after seeing how far it has grown in the last six months (market value above \$1 trillion). The government of a country's bad monetary decisions just help bitcoin. And, based on what experts have seen over the last year, there is no evidence of this trend slowing down. Since its inception, the crypto world has radically shifted. However, experts claim one of the main benefits of crypto currencies is that any transaction that has ever existed is placed on an open public ledger, making fraudulent applications virtually impossible. Many people believe crypto currencies are the way of the future when it comes to income. Crypto currency users are now embracing huge technical advancements like block chain.



This encourages you to be on the cutting edge, and many people like the opportunity to be ahead of the game. Block chain technology is expected to transform the future in a variety of ways, including making banking even easier.

### Crypto currency predictions for 2021

For crypto currencies, the last two years have been quite thrilling. Bitcoin (BTC) has risen to prominence as the most common crypto currency. Ethereum (ETH) and XRP (XRP) have been right behind, with rates reaching new highs.

### The upcoming Coinbase IPO would only help to solidify crypto's status as a common currency

It is certain the crypto currency market continues to heat up. The upcoming Coinbase IPO would only help to solidify crypto's status as a common currency. Devoted crypto investors have long predicted that digital assets would soon be replaced, if not completely overtaken, fiat currencies outright in the future.



### The Coronavirus pandemic has hastened the adoption of digital wallets and cashless payment technology

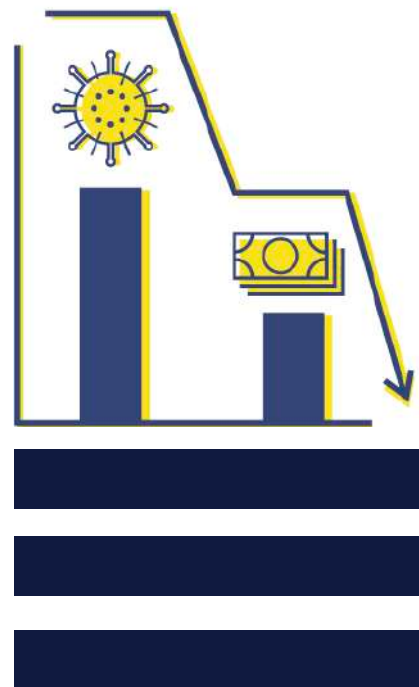
The Coronavirus pandemic has hastened the adoption of digital wallets and cashless payment technology. This current situation can only continue hastening the use of crypto currencies in everyday life.

### Upcoming cashless payment trends in 2021

The previous year was notable in the crypto sector when token values soared to record highs. The virtual currency and block chain industries are expected to expand in 2021, thanks to increased market adoption and institutional interest.

### The virtual currency and block chain industries are expected to expand in 2021, thanks to increased market adoption and institutional interest

- The global block chain technology market is predicted to expand rapidly this year, as expected. Businesses from a wide range of industries are increasingly interested in implementing this technology, especially to improve their day-to-day operations.
- CBDCs or Central Bank Digital Currencies received traction in 2020.
- Many central banks are contemplating releasing their own digital tokens to improve data protection, lower transaction fees, and operating expenses, and improve transaction performance.
- Customers will also pay in crypto currencies thanks to PayPal and Square adding BTC to their payment options.



- Financial institutions were struck especially hard by the COVID-19 pandemic, out of all the industry sectors that were affected. Banks and other financial service companies were forced to adjust to changing consumer demands and the emerging digital environment due to declining revenues and reduced margins.
- As a means of trade, Bitcoin has fallen out of favor. This is because senders' and recipients' identities can still be registered and traced, but with difficulties. To combat this, developers have started releasing privacy-focused crypto currencies like Dash and Monera, which can be used to conduct encrypted transactions.
- The game industry is gaining in popularity as well. In reality, it has already introduced Bitcoin as a mainstream trend. Crypto currencies are being used in the gaming world, and they have had their own business in 2017.

## Is it safe investing in Crypto currency in the future?

Why is there such a big deal around crypto currencies if it has little inherent value? There are two main reasons why people invest in cryptocurrencies. For starters, cryptocurrency prices have a speculation component that attracts investors looking to profit from market fluctuations. Many people engage in crypto currencies as a geopolitical hedge, in addition to pure speculation. When there is political unrest, the price of Bitcoin continues to rise.

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**You might be able to afford to bet on crypto if you're cool with risk and the rest of your portfolio is solid. Otherwise, it's best to stay away for the time being**

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Crypto currency is growing in popularity with investors, however, that doesn't imply it's the best investment for you. You might be able to afford to bet on crypto if you're cool with risk and the rest of your portfolio is solid. Otherwise, it's best to stay away for the time being.

### Final Thoughts

Block chain technology and crypto currencies are well-positioned for the growing economy in the coming years, thanks to increased governmental approval, better acceptance, and augmented institutional interest. Furthermore, as digital payments and digital identity merge, artificial intelligence-based technology such as data encryption solutions will become increasingly important for maintaining security in the crypto space.

Crypto currencies may appreciate in value, but many investors regard them as speculative investments rather than long-term investments. Crypto currencies, like actual currencies, have no cash balance, because, in order to earn a profit, anyone else would pay more for the money than you would.





# Infinix Note 10 Pro

## Bigger and Better

### Design

The prominent back panel on Infinix Note 10 Pro cuts into two halves, a plain-looking glossy area on the top that also holds a protruded quad-camera set up and the textured bottom filled with symmetrical lines. This part only carries Infinix branding.

The straight lines in the lower half add to the beauty of the phone that looks nothing less than a device from a big brand.

Even the phone is enormous, it is comfortable to hold for an extended period, and it's even easier to reach the multifunctional fingerprint sensor on the right side that also doubles as a power key. Another highlighting feature is the presence of a dual speaker setup which, along with a 6.95-inch LCD screen, that helps create an immersive experience.

### Display

The most distinguishing feature of the Note 10 Pro is its nearly 7-inch display. It even manages to carry a native 1080p resolution and 90 Hz refresh rate unlike the 720p display of most other inexpensive smartphones.

Infinix communicates it as a 91% screen-to-body ratio on the front. It's sporadic to find a silky smooth and highly responsive LCD in the entry-level segment. The maker calls it a "superfluid" display, and they are right about it. It shines, and it's a treat to look at the poppy colors and sharp icons on this 1080×2460 px display that offers a 90Hz refresh rate and 500 nits of peak brightness level.

It's a TÜV Rheinland certified screen, so the blue light effect should have less impact on the health of our eyes.

### Performance and Battery

Infinix Note 10 Pro is nothing short of the desirable ingredients. With a G95 gaming chipset comprising two A76 cores clocked up to 2.05 and six A55 cores. Coupled with Mali G76 GPU, the 8GB RAM and 256GB internal storage (UFS2.2) practically make it a performance hound.

The phone comes with 5000 mAh battery capacity. The phone accompanies a 33W charger out of the box and promises fast charging; however, the charging time is above two hours. It's 2 hours and 10 minutes exactly.



### Camera

Infinix Note 10 Pro takes 16MP default picture with its standard AI Cam mode, but one of the key marketing features is its large 64MP quad-Bayer camera that can shoot considerably bigger images in contrast to standard mode.

Infinix does not overdo the color and boost saturation level beyond the natural colors. There is no added feature to boost colors.

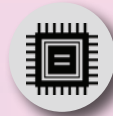
On Infinix Note 10 Pro 64MP can magnify the scene up to 10x. Note 10 Pro is quite reasonable with portrait, the edge mapping of the subject is good, and so is the background blur. For beauty mode, Infinix also does a great job.

Super Night mode works in almost every situation. I used it indoors and outdoors, where ever the ambient light was below the recommended level, and it turned out vibrant, sharp, rich in detail, and handling light source in a much better way. You would find it shooting some awesome pictures of the skyscrapers.

At this price point, shooting 4K video from both front and rear cameras is a huge charm, especially for Vloggers. Like the Super Night, the algorithm keeps 4K videos rich in details and vibrant colors. You can also make 1080p (30/60) fps videos on this phone, and the exciting aspect is that Infinix Note 10 Pro allows bokeh and stabilization at 1080p resolution.

Infinix Note 10 Pro also gives you this feature to shoot slow-mo and short videos.





256GB Built-in, 8GB RAM



(Li-Po Non removable),  
5000 mAh



6.95 Inches



Rear Camera: 64MP+  
8MP+2MP+2MP  
Front Camera: 16MP

### Pros

- Good camera quality for the price
- Large 6.95-inch FHD touchscreen
- Smooth 90 Hz refresh rate
- Ships with Android 11

### Cons

- Display is too dim when outdoors
- Tons of bloatware

### Verdict

The Infinix Note 10 Pro is a great example of higher-end features trickling down to lower-end models. We suspect that future models will start to incorporate even more auxiliary features like an onscreen fingerprint reader, wireless charger, or 5G connectivity.

PKR. 34,999/-



# What's Preventing Growth in Pakistan's e-commerce market?

For the last few years, retail is going digital. This trend is further accelerated during the Covid-19 pandemic, with social distancing being the basic norm to keep ourselves safe. The Ministry of Commerce reported a growth of 35% in the first quarter of the fiscal year 2021. Pakistan's e-commerce market has registered growth to Rs 96 billion, compared to Rs71bn over the same period in 2020.

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With the accelerated growth of online shopping, e-commerce stores like Daraz and other e-retailers, are offering virtual shopping with online payments or a Cash on Delivery facility. All we have to do is to open the website, select the products, enter a location and that's it. While the overall process seems so easier, in actuality, it is a heck of a task when you are in Pakistan as problems associated with it are extravagant.

## E-commerce: is it a Missed Opportunity?

All that glitters is not gold! While the trend of e-commerce is increasing, we cannot overlook the issues at the backend which are not highlighted.

The most evident is the unprofessional behaviors faced by online shoppers when they interact with the sales departments via email or call. Initially, emails are not replied and when a complaint is registered with the company through a call, it is not designated to the right person.

A colleague of mine shared his experience of online eid shopping where he ordered shirts from Sapphire online. When he received the parcel, the size was not the same as ordered. When inquired from the helpline, the company's sales executive told him that the parcel will be collected from his home and a voucher will be given to him.

This overall process will take 15 days and then he can buy something else by using this payment voucher. When he asked for the right sizes instead of the voucher, the company declined it by saying that exchange is not its policy. I ordered Kurta from Amir Adnan, and the same thing happened to me; the sizes were not what I had asked for.

**Besides the undeveloped and untrained e-commerce business, the two obvious factors resulting in slower e-commerce growth in the country are the lack of literacy that is required to create a transaction from start to finish and the lack of financial inclusion**

Besides the undeveloped and untrained e-commerce business, the two obvious factors resulting in slower e-commerce growth in the country are the lack of literacy that is required to create a transaction from start to finish and the lack of financial inclusion. While most of the population remains uneducated, digital literacy needs to be catered to. While approximately 63% of the Pakistani population lives in rural areas, smartphone ownership remains with the head of the family. Moreover, most of the women in Pakistan are not yet fully independent and rely on some male member of the family when it comes to financial matters, due to which e-commerce is unable to flourish as expected.

**Most of the women in Pakistan are not yet fully independent and rely on some male member of the family when it comes to financial matters**



## **Electronic Payments: Gateway to e-commerce boom in Pakistan**

Furthermore, another major obstacle for digital commerce in Pakistan is a lack of trust in the electronic payments system. Prevailing systems are either unapproachable in Pakistan or not suitable for local entrepreneurs. It mostly remains an underserved market in terms of both internet access and digital payments, yet there are probabilities of enhancement. Digital payments signify an encouraging opportunity for branchless banking players to generate importance for their customers. Easypaisa, Jazzcash and Upaisa have created both front-end and back-end payment products and while most people have started using them, there are many who are not using them for different reasons like trust and digital illiteracy. Now, this trend has witnessed a tremendous change over the last two years (thanks to Covid), still, we are unable to compete with global economies when it comes to usage.

**Easypaisa, Jazzcash and Upaisa have created both front-end and back-end payment products and while most people have started using them, there are many who are still reluctant**

To increase Pakistan's global trade and close the digital divide that is currently a barrier between developed and less developed areas of the world, there are essential things that need to be put in place to enhance competence both subjectively and materially. Pakistan is one of the few economies left where digital representation can change the growth of the economy quickly.

## **Where does Pakistan stand in Online Shopping?**

Keeping in view the global statistics, in the United States, e-retail in the last three months grew as much as it had in the past ten years.

During the pre-Covid days, the US remained ahead of Pakistan in e-commerce and now Covid-19 has further widened the gap. Europe was second in e-commerce as its e-retail sales from January 2020 to August 2020 were equivalent to the sales in the previous six years.

**The main problem with Pakistan having revenue of just US\$4 billion in 2020 is no buyback clause as such**

While e-retailers in Pakistan witnessed a mushroom growth in big cities and remote areas as compared to the USA which accounted for \$340 billion online sales in 2020 and \$100 billion sales from Europe, the main problem with Pakistan having revenue of just US\$4 billion in 2020 is no buyback clause as such. Most retailers do not even allow the consumers to open the product before making payment. There are numerous instances where the consumers received different colors or sizes of the dresses they ordered. Getting it replaced is a hassle that many cannot afford.

## **Role of Government in accelerating E-commerce in Pakistan**

In an effort to push e-commerce in the country, the government had published the most awaited policy framework back in 2019. Though it was able to bring this sector into the limelight, we still couldn't reach the pinnacle (as compared to the other ripe markets). It has immense potential in Pakistan but unlike other countries, it has not reached the level where digital wallets become the more preferred means of payment instead of cash.

**In an effort to push e-commerce in the country, the government had published the most awaited policy framework back in 2019. Though it was able to bring this sector into the limelight, we still couldn't reach the pinnacle**



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**During the pandemic, to help people with online shopping, the state bank of Pakistan lifted all the taxes on online payments and interbank transfer**

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Even during the pandemic, to help people with online shopping, the state bank of Pakistan lifted all the taxes on online payments and interbank transfer. While the government is expected to play a lead role in catalyzing, supporting, and coordinating the e-commerce initiative, it would need to secure a commitment by the private sector to empower youth and SMEs for the task. The brands offering online shopping are unable to maintain the customers' trust resulting in a hurdle to the e-commerce boom in Pakistan.

**The Bright Side**

While discussing the negative aspects, the positive side of the story also needs to be mentioned. Pakistan has around 60% of its 200 million population between the ages of 15 to 29 years, showcasing vast human capital. It has more than 5,000 IT companies and call centers and this number is growing exponentially.

The country has more than 300,000 English-speaking IT professionals having expertise in current and emerging IT products and technologies. Pakistan is among the economies where digitization is triggering changes in different components of the service sector. This overall shift is quite prominent in different sectors while e-commerce is the top one on the list. The market size of e-commerce has grown significantly in Pakistan over the last few years, transforming the way consumers interact with – and especially pay businesses.

**Will Amazon be a Game Changer for the Pakistani e-commerce Market?**

The world, today, stands on the brink of a technological revolution because of COVID-19 that will completely transform the way human beings interact with one another and organize their lives – be it jobs, education, or day-to-day routine activities

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**Many people believe the new era of the e-commerce boom for Pakistan is about to start, as Amazon has added Pakistan to the approved sellers' list**

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Many people believe the new era of the e-commerce boom for Pakistan is about to start, as Amazon has added Pakistan to the approved sellers' list. With this new change, sellers will be able to create their IDs using Pakistani details. It's big news for brands and specifically for agencies who are about to get more business. Keeping in view the experiences mentioned above, the sellers also need to work hard and maintain the quality of their products to make Pakistan an e-commerce hub. Government should also work on bringing PayPal to Pakistan as it will further strengthen the local e-commerce market.

No doubt, this achieved milestone will lead us towards the path leading to a progressive Pakistan. Our exports increasing day by day and industries will BOOM with development in the e-commerce sector. It can be a game-changer for our country.

Pakistan – with an emerging IT sector, growing population, and a growing number of internet and mobile phones and computer users – has already been in a long quest to transform its economy and commercial activities into a vibrant and technologically advanced nation. A country that will have a trade surplus, ample foreign exchange reserves, greater job opportunities, better incomes, and higher standards of living. A country that is driven by export-based economic growth, whether in goods or in services. The emergence of e-commerce, not just in Pakistan, but for the whole world, has paved the way for inclusive trade and economic development.

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**The emergence of e-commerce, not just in Pakistan, but for the whole world, has paved the way for inclusive trade and economic development**

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## SPARK 7 Pro

THE NEW CHAMPION OF SPARK IS COMING

# TECNO Spark 7 Pro comes as the Best Budget Gaming Phone

TECNO mobile Pakistan is a premium brand with a comprehensive collection of budgetary and quality smartphone production history. TECNO fans have become more loyal and inclined towards this smartphone which has made their lives more satisfied and content. The advent of the new variant in the spark series has made some groundbreaking revelations for a budgetary phone.

The “Gaming King” Spark 7 Pro, the latest from TECNO’s famous Spark series, has proved its worth in the market by demonstrating its efficient value for money. It made records of its sale on the first day of its release by selling the first stock to get sold out entirely. Such a mid-ranged mobile phone with specifications that have made mobile phone issues go away, makes a certain person curious enough to look into this device.

One of TECNO Spark 7 Pro’s key features is its MediaTek Helio G80 chipset. This powerful chipset makes this device gaming-friendly as well as provides smoothness and no heating problems. Its efficient performance in heavy-loading games, which demand intense gameplay and scenes is exemplary. Its 5000mAh massive battery supports enhanced gameplays and pro-longed backup time.

The rear 48MP camera of this phone provides beautiful and sharp colored pictures as well as its 8MP front camera. Professional and bright photographs can be easily captured by this phone’s excellent camera system including its modes such as the Super-night, Bokeh, and Smile Shoot mode. The attractive display of this phone has a “6.6” dot in display with a 90Hz refresh rate which is considered as a high refresh rate. This helps during video streaming or playing heavy games to provide an uninterrupted and smooth experience.

This smartphone is overall a very awesome featured device. If you want a gaming experience with nothing that can interrupt you while playing, you must go for it. It is a good option for those who want flagship-like qualities in an affordable phone. Hurry up and book your orders to benefit from additional discount offers available!



# The Upcoming Budget 2021-2022: What it means for the IT and Telecom Sector?

The IT and telecom sector have become a role model for other sectors in reshaping the country's economic destiny. The telecom sector of Pakistan has flourished very rapidly in recent years. The telecom sector has empowered more than 180 million cellular subscribers and 95 Million 3G/4G subscribers to gain access to basic telephony services and mobile broadband services. This increased access to mobile broadband services has opened an extensive range of benefits to the overall economy of the country. Similarly, mobile technology has played a significant role in boosting the economy of the country. Whether it is m-health, m-agriculture, m-governance, or m-commerce, each field has played a vibrant role in making the country more digitalized, improving socio-economic growth.

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**The telecom sector has empowered more than 180 million cellular subscribers and 95 Million 3G/4G subscribers to gain access to basic telephony services and mobile broadband services**

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Although the government is fully aware of the importance of the improvement in the IT & telecom sector. But when it comes to the taxation and budget policy, things always do not go in the favor of everyone; resulting in a conflict between the government and the industry. In the budget 2020-2021, the government allotted a total of Rs 7,294.9 billion which was 11% lower than the size of budget estimates of 2019-20.

The government also dropped the development budget for the IT and Telecom Sector and allotted Rs 6.672 billion in the budget compared to Rs 7.34 billion in 2019-20 under the Public Sector Development Programme (PSDP). The assigned amount under the PSDP for budget 2020-21 included Rs 5.42 billion local components and Rs 1.25 billion foreign aid. The total size of PSDP for 2020-21 was Rs 1,324 billion.

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**Although the government is fully aware of the importance of the improvement in the IT & telecom sector. But when it comes to the taxation and budget policy, things always do not go in the favor of everyone**

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Despite the uneven taxation and low budget, the telecom sector has managed to become a prominent contributor to the national exchequer. According to PTA's Annual Report 2020, the sector contributed PKR 278 billion (including PTA deposits to the national exchequer) in FY 2020 as compared to PKR 121 billion in FY 2019, registering a year-on-year growth of 129%.

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Last year, due to the lockdown in the country, a surge in demand for telecom services has rapidly increased which resulted in a significant growth not only in the usage of telecom services but also in the subscriber base. Although the overall economy of the country was affected due to the global lockdown, the telecom sector has made an iconic share of 25% (USD 623 million) in the total Foreign Direct Investment (FDI). According to the PTA report, the telecom sector reached a total revenue of PKR 537 billion in FY 2020, which was mainly generated by the mobile sector.

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**Due to the lockdown in the country, a surge in demand for telecom services has rapidly increased which resulted in a significant growth not only in the usage of telecom services but also in the subscriber base**

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The introduction of the Device Identification & Registration System (DIRBS) has helped the government to increase the revenues by many folds with tax collection on handset imports.

The local manufacturing of handsets has boosted the telecom ecosystem, with growth in local 4G device manufacturing crossing 34%. All the telecom operators have successfully completed the trials of 5G services which were one of the few firsts in South Asia. PTA is aiming for spectrum auction of LTE, VoLTE services in the current passing year as a precursor to 5G. PTA is also gearing up for auction of spectrum for high-speed broadband services in AJK & GB. National Information Technology Board (NITB) has developed 35 useful mobile applications and web portals for providing public services under the Digital Pakistan vision. Similarly, many incubation centres had been set up in five major cities where 691 start-ups had registered themselves. The government has also planned to launch more incubation centres in major cities including Faisalabad, Kamra, Hyderabad, Mardan, and other cities. Despite substantial growth recently, 20% of Pakistanis remain without access to mobile services according to GSMA. In Pakistan, nearly 25% of the population lives below the poverty line, and GDP per capita is also low. This also means the cost of a smartphone is in some cases equals to a monthly wage of a person. So, there is a need to extend affordability through a consumer tax reduction.

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**PTA is aiming for spectrum auction of LTE, VoLTE services in the current passing year as a precursor to 5G. PTA is also gearing up for auction of spectrum for high-speed broadband services in AJK & GB**

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When the IT and telecom sector is growing at a rapid speed and has planned many projects to boost up the economy, it needs a huge budget or relaxation in the taxation. The fiscal year is about to end, and the government is now ready to announce the budget 2021-2022 next month.



**Many recommendations have been made by the Federal Minister for IT and telecom and the federal cabinet which are approved by the ECC and have now been sent to the Prime Minister for approval**

To boost the Digital Pakistan initiative, the government has decided to offer great concessions to the IT and Telecom sector in the upcoming budget 2021-2022, with reduced taxes and duties. Many recommendations have been made by the Federal Minister for IT and telecom and the federal cabinet which are approved by the ECC and have now been sent to the Prime Minister for approval.

ECC has approved the following recommendations of the Cabinet along with the qualifications required for each recommendation:

- ECC has approved that the income tax would be reduced from 12.5 to 10 percent. It would be further brought down up to 8 percent in 2022. The phase-wise reduction of the tax will continue.
- The Federal Excise Duty (FED) reduced from 17 percent to 16 percent in the federal capital.
- The telecom sector (All PTA licenses) should be included in Division II of PART III of Income. Tax Ordinance 2001 to grant relief of three percent minimum tax instead of eight percent.
- The government would accept the Lahore High Court (LHC)'s judgment in favor of two cellular companies, implement it for all the mobile operators, and withdraw Rs250 issuance tax on the sale of new SIM cards.
- ECC approved the reduction of 4pc customs duty and 9pc regulatory duty on import of telecommunication equipment.

- Pakistan Telecom Companies are dependent to import various equipment under HS Code 8517 and HS Code 8544. The cabinet also proposed abolishing the Regulatory Duty on this equipment.

- Taxes at the import of raw materials related to optical fiber cable manufacturing will be reduced from 20pc and 7pc to 5pc and 3pc, respectively.

The government is taking all the necessary steps to strengthen the economy. Just recently, the government has approved the "Right of Way" Policy, mobile sets manufacturing policy, and enhancement of Universal Service Fund (USF) projects.

During the last 31 months of the present government, the IT ministry in collaboration of USF has launched 32 projects worth Rs22 billion, connecting 10,132 villages in 50 unserved and underserved areas. Moreover, Pakistan Software Export Board (PSEB) has received 40pc additional export remittances in the first six months of the current fiscal year and hoping to cross the target of 1 Billion in the last six months. If the government approved the proposed budget, it would be really helpful for the sector to gather more revenue. Although it is not only about the revenue, lower taxation also means more budget for further development projects. When the new projects are started, they create more job opportunities. Additionally, they will help in getting positive FDI growth.

**During the last 31 months of the present government, the IT ministry in collaboration of USF has launched 32 projects worth Rs22 billion, connecting 10,132 villages in 50 unserved and underserved areas**

Moreover, the mobile operators have the potential to further contribute to Pakistan's economic growth by investing in network rollout and quality of service improvements.

The telecom sector of Pakistan is still in the budding stage as there are many areas where telecom services are yet to be installed especially small villages and towns where awareness about technology is insufficient. So, extending access to mobile services could enable more people to fully participate in the economy, rise out of poverty and gain access to vital services, while supporting the country in achieving its Vision 2025 goals. If the government continue expanding and investing its IT sector, then surely we will soon have one of the most emerging and advanced IT sector around the globe.

**Extending access to mobile services could enable more people to fully participate in the economy, rise out of poverty and gain access to vital services, while supporting the country in achieving its Vision 2025 goals**



# VIVO Introduces V21 with 44MP OIS

## *Night Selfie System – Sleek Design Perfect Shot*

### **Vivo Introduces V21 with 44MP OIS Night Selfie System – Sleek Design Perfect Shot**

Vivo has launched its new V21 Series in Pakistan at a star-studded event. The vivo V21 is the latest addition to the longstanding V-series smartphones, which is widely known for providing consumers with fashion-forward, high-performance, and camera-focused devices at competitive prices.

The spectacular launch event was attended by vivo's Brand Ambassadors, Fahad Mustafa and Hania Aamir, both considered as the youth icons in Pakistan.

#### **Optical Image Stabilization with outstanding night vision**

The V21 features a unique 44MP front camera that combines OIS with EIS (Electronic Image Stabilization) for ultra-stable shots, creating a software-hardware synergy to capture clearer selfies and high-quality videos anytime, anywhere.

Capturing pristine night shots, action shots, and 4K videos, this front camera is designed to create a versatile imagery experience, even in environments where lighting is limited. As part of the 44MP OIS Night Selfie System, the 44MP OIS Super Night selfie feature can significantly extend the exposure time in night scenes, thus increasing the amount of light intake, reducing noise, and making night-time selfies clearer and brighter.

Furthermore, the AI Night Portrait improves background brightness and night imaging effects by reducing noise in dark environments and enables better focus and clarity for faces, while the OIS stabilizes the camera to enable greater light exposure.

To improve the camera's ability to capture light in low light scenarios, the Selfie Spotlight feature in the V21 front camera uses two OLED spotlights located under the front panel, which can be turned on while taking photos and recording videos.

The smartphone comes with many other creative features such as an Eye Autofocus to capture subject's eyes in real-time; Dual View Video, which records videos from both sides of the smartphone; Double Exposure for premium art photos easily and quickly; and Child Face Beauty and Personal Facial Feature to help users let their creativity shine through.

**7.29mm Ultra Slim AG Design smartphone speaks sophistication**



V21 has a sleek, minimalist flat frame design in a 7.29mm thin body to meet customers' demand for a sophisticated and stylish smartphone to match their lifestyle. vivo's signature Dual-Tone Step Design is an ingenious layered design that refrains from an otherwise bulky look and makes the rear camera lighter and simpler.

The front of the smartphone packs an E3 AMOLED Display with a 90Hz High Refresh Rate, which enables optimal screen brightness, contrast, colour vividness, blue light eye protection, and much more. The backside features a brand new AG Glass back with trendy colour themes inspired by nature — Arctic White, Sunset Dazzle and Dusk Blue.

#### **A collection of features designed to enhance all aspects of users' smart lifestyles**

The smartphone runs on an MTK Dimensity 800U processor. V21 supports a display refresh rate of up to 90Hz, delivering smoother visual effects and a more coherent viewing experience while effectively reducing ghosting and latency when playing games. Furthermore, the 33W FlashCharge allows users to power up the smartphone in no time and stay on the move.

#### **Price and availability**

The all new vivo V21 is currently available for pre-booking across Pakistan with the price tag of Rs. 59,999 and will be available for sale from June 8, 2021.

Vivo offers a one-year warranty for V21 along with 15 days free replacement and 6 months warranty for accessories. Zong customers can also get 12GB Free Mobile Internet by using their 4G SIM card in Slot 1 (2GB Internet / month for 6 months).

For more details, visit the official product page: <https://www.vivo.com/pk/products/v21>



# TECNO SPARK 7 Pro:

## Helio G80 & 5000mAh Battery Ensures Good Value

### Design

The TECNO SPARK 7 Pro comes in a special Spruce Green shade with a metallic finish. The body is made out of plastic but doesn't look cheap.

At the back, there is a long strip for the cameras featuring a triple camera setup, quad-LED flash, along with the words AI and SPARK inside the same housing. You'll also find a fingerprint sensor at the back, located in a convenient position for unlocking. There's a single speaker, MicroUSB port, and a 3.5mm headphone jack at the bottom.

The textured design of the back has a frosted feel to it which also gives it a unique look. Plus, the curved edges ensure a comfortable grip.

### Display

For display, the TECNO SPARK 7 Pro comes with a 6.6-inch HD+ Dot-in display with a 90Hz refresh rate. Yes, the display is not FHD. Instead, it's a 1600 x 720p panel but you do get the benefit of a high refresh rate. The lack of a full HD display is a bit of a disappointment, but the 720p screen along with its 5000mAh battery helps in ensuring a long battery life even with a 90Hz refresh rate. .

### Battery

The 12nm Helio G80 chipset along with its super large 5000mAh battery ensures that battery life is very good on the TECNO SPARK 7 Pro. The phone charges at 10W with the included charger.

The lack of a full HD display helps in the battery life department, as even with a 90Hz refresh rate, you'll be able to squeeze in up to 2 days of battery life. So the battery is definitely one of the biggest highlights of the new TECNO model.

### Software

The TECNO SPARK 7 Pro runs on the new HiOS 7.5.0 based on the Android 11 platform. The OS brings in a bunch of interesting features like Bluetooth Audio Share 2.0 which allows you to share your music with your friends and family.

The HiOS 7.5 version also brings in a scheduled dark theme, chat bubbles for instant messaging, video assistant, and an app cloning feature called App Twin.



### Performance

The 2.0 GHz Helio G80 inside the TECNO SPARK 7 Pro ensures that the performance is satisfactory and this includes gaming. The phone can handle mainstream games like PUBG without any major hiccups and for a cheap model, this chip is indeed good enough.

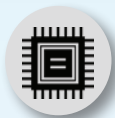
The unit we have features 4GB RAM and 128GB ROM inside but there are other variants like 4GB + 64GB and even 6GB + 64GB available. Other standard features like GPS, USB-OTG, 3.5mm headphone jack, Bluetooth are all present on the device.

### Camera

The TECNO Spark 7 Pro features a 48MP triple camera setup at the back. The other two cameras are a depth sensor and an AI Lens sensor.

The 48MP primary camera manages to capture excellent daytime images with a good amount of colors and details. You won't be disappointed with its main shooter in this price segment. The dynamic range is also pretty decent.

When the lighting goes down, the phone struggles a bit with its focus and details. But this phone has a trick up its sleeve wherein its Super Night Mode can boost the brightness even in extremely dark situations. There are other software-powered features on the SPARK 7 Pro like Night Portrait, Smile Snapshot (AI Portrait focuses on the face and captures the photo when it sees a smile. It also has 240 fps Slo-mo video, and Bokeh video effect.



64GB Built-in, 4GB RAM (Li-Po Non removable),  
5000 mAh



6.6 Inches



Rear Camera:48MP  
(Tripple Rear Camera)

Front Camera: 8MP

#### Pros

- 5000 mAh Battery
- 90 HZ refresh rate

PKR. 21,999/-

#### Cons

- 10W Charger

#### Verdict

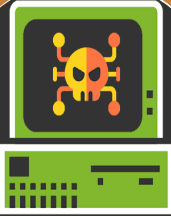
With media Tek Helio G80 processor, 5000 mAh battery 48 MP AI camera, Tecno Spark 7 Pro is a real treat for game enthusiasts.

# TECH TWIST



As of 2021, more than 500 hours of video are uploaded to YouTube every minute.

1



In 1971, the first ever computer virus was developed. Named Creeper, it was made as an experiment just to see how it spread between computers.

2



It is estimated that digital technology could reduce global carbon emissions by 20% by 2030. That's equal to getting rid of 100% of China's emissions, plus an additional 1.5 billion tons!

3



An artificial intelligence was created (with 87% accuracy) in determining disease outbreaks, such as dengue fever. There are hopes to use this tech to predict outbreaks for more serious diseases like Ebola and Zika.

4



The man who was writing email programs had to determine how to determine the user and the machine that the user was on. He chose the symbol (@) because it means "at" and it wasn't used as much as other symbols.

5



# Stewart Butterfield

## *Cofounder of flickr and Slack Technologies*

**Stewart Butterfield**, original name **Dharma Jeremy Butterfield**, is a Canadian entrepreneur who cofounded both Flickr (2004), a photo-sharing site, and Slack Technologies, Inc. (2009), a dot-com enterprise that provided organizations with Slack, an internal-messaging service that facilitated employee collaboration.

In the early 2000s, Butterfield created Flickr, which sold to Yahoo for over \$20 million. Now, his latest venture, slack, one of the fastest-growing business apps ever, has been acquired by Salesforce for \$27.7 billion.

Flickr was revolutionary at the time for a few reasons: For one, photo-sharing in the cloud was a new concept on its own. But Flickr also pioneered features like tagging, user authentication, and adding permissions for which contacts can view your photos. Yahoo snapped up the company in 2005 for between \$22 million and \$25 million.

Butterfield relocated to the Bay Area and joined Yahoo as part of the acquisition. But three years later, Butterfield was fed up and tried to quit. Finally, in June 2008, Butterfield resigned. When he left Yahoo and Flickr, Butterfield wanted to make the multiplayer game he started working on with Ludicorp. He rounded up some of his former coworkers from Flickr and Ludicorp, including Cal Henderson, to found a startup called Tiny Speck. They started building the game "Glitch." But while "Glitch" had a "hardcore cult following," it was hard to justify the \$17 million in venture capital that had been poured into it.

Tiny Speck found the perfect pivot: the communication tool Butterfield and his team had built to chat in real-time in the game. It became known as an instant-messaging platform called Slack, which formally launched in 2013. Slack's growth impressed some of Silicon Valley's most prominent venture capital firms, like Andreessen Horowitz and Kleiner Perkins. It became one of the fastest-growing companies ever, achieving a \$1 billion valuation less than a year after it officially launched.

By the summer of 2018, Slack had grown to over 8 million daily active users, even as rumors swirled that Amazon was looking into an acquisition. All told, Slack raised over \$1.2 billion in funding, and hit a \$7.1 billion valuation in its last round of funding.

In December, cloud giant Salesforce announced it was buying Slack for \$27.7 billion, making it Salesforce's largest acquisition to date.





## PTA's Failure to Conduct Spectrum Auction in last 3.5 Years results in QoS Deterioration

Pakistan Telecommunication Authority carried out an independent Quality of Service (QoS) survey of Lahore from 15th -28th February 2021 and 3rd – 8th March 2021. During the 20 days test, PTA measured the performance and service quality of 2G (GSM), 3G (UMTS/HSPA+, etc.), and 4G (LTE), of Cellular Mobile Operators (CMOs). Not surprisingly, all telcos failed PTA's 4G quality of services test. While the performance of these operators is not up to the standard, the question arises: "Who is to Blame"? The operators who are trying to provide cost-effective services to their customers or our regulatory authorities who are unable to conduct spectrum auction for 3.5 years?

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**Three auctions were done in a short period of time from 2014 to 2017 that enabled Pakistan to embrace mobile broadband technologies**

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The last Auction was done in 2017 during the last Government rather three auctions were done in a short period of time from 2014 to 2017 that has enabled Pakistan to embrace mobile broadband technologies otherwise the country would have been literally in dark ages if those initiatives were not taken. Ensuring adequate Spectrum is traditionally important for mobile operators to improve service coverage and capacity. While spectrum is the main factor in driving cellular growth but unfortunately, it is always neglected in Pakistan.

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**Pakistan's telecom industry is the most deprived sector in the world, provide with only one-third of the total spectrum being deployed by them**

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Pakistan's telecom industry is the most deprived sector in the world provided, with only one-third of the total spectrum being deployed by them.

In comparison with neighboring countries, the spectrum assigned to operators is ominously less due to delay in spectrum allocation and high prices adversely affecting the investor's choices. By providing telecom operators with a restricted spectrum, the competitive dynamics of the market are adversely affected giving life to negative consequences for customers including lower quality of service and higher prices.

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**During the initial lockdown, a surge in internet traffic was observed, due to which telecom service providers demanded additional spectrum to fulfill the growing connectivity needs of users**

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Even during the initial lockdown, a surge in internet traffic was observed, due to which telecom service providers demanded additional spectrum to fulfill the growing connectivity needs of users. It was a big challenge to meet the increasing needs of users in a limited spectrum, but the government did not even release a temporary spectrum to help operators cope with the situation as was done by some other regulators who were alive to the situation, whereas PTA kept sleeping. In the absence of adequate Spectrum as in Pakistan, more investment is needed for putting more towers and capacities into their networks. In this situation, customers had to face poor network coverage and quality with increased prices.

### High Spectrum Cost, Main Hurdle to Rollout of Telecom Services

According to GSMA, in developing countries, high spectrum cost slows down the rollout of 4G networks and negatively affect their network quality in the long run. Pakistan is also in a similar boat. On Speed Test Global Index, Pakistan is unfortunately ranked 111th out of 140 countries in mobile internet speed. This is due to the breaks applied in allocating spectrum in the past couple of years that resulted in deteriorating Quality of Services. Sadly, alongside this, the situation on the FDI investment front also deteriorated as telecoms sector net outflow showed only USD 63 million during the 09th Month of the current fiscal year, a sharp decline even from last year's net inflows of USD 465 million during the same period. A Telecom expert commenting on the situation attributed PTA's slow response to any spectrum auction in the last few years with the NAB inquiries that shook the confidence of the regulator as well as the mobile network operators. It may take a while for the market to recover from the NAB misadventures into the very complex and technical telecom industry.

The Government's recent announcement to complete an auction process for an unsold spectrum of 2014 Auction is seen as a first step to restore market confidence and the wait for the spectrum allocation for 3.5 years might to end after all.

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### **The Government's recent announcement to complete an auction process for an unsold spectrum of 2014 Auction is seen as a first step to restore market confidence and the wait for the spectrum allocation for 3.5 years might to end after all**

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Moreover, mobile operators are carrying out test trials of 5G mobile technology, but leaping to a 5G-enabled society requires government to release an appropriate and affordable mobile spectrum. Spectrum management, regulations, and pricing have a direct impact on 5G commercialization and service provision. Furthermore, if 5G is to be introduced by the operators, irrespective of nationally or in urban areas of large cities, new spectrum bands such as 3.5GHz and mm-Wave should be considered for release to the market to incentivize operators to invest in 5G.

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### **If 5G is to be introduced by the operators, whether nationally or in urban areas of large cities, new spectrum bands such as 3.5GHz and mm-Wave should be considered for release to the market to incentivize operators to invest in 5G**

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The Telecom sector is considered the country's leading contributing sector to the national exchequer but it still faces challenges. High and disproportionate pricing adversely affects the overall business environment for telecom operators in Pakistan. The plethora of taxes imposed on the telecom sector has remained a hurdle in providing cost-effective services and is a setback for CMOs to further invest in Pakistan.

The upcoming budget is an opportunity for the government to restore investors' confidence by providing some relief under long-sought demands of lower taxes and duties on broadband usage.

### **How will Government Achieve Digital Pakistan Initiative without the Provision of Spectrum?**

In light of the government's digital Pakistan initiative, its main focus should be on the provision of broadband services throughout Pakistan which is only possible if operators are provided with favorable environments to invest more in network quality and services instead of being burdened by a higher upfront spectrum fee and taxes.

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### **In the upcoming spectrum auction, the government needs to work on long-term policy agenda for expanding broadband access throughout Pakistan instead of a revenue maximization approach**

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With the increase in demand for data-driven services, dynamic ways to assign spectrum are needed so this time government should work on some alternative spectrum pricing mechanism instead of the historic auction model used in Pakistan. In the upcoming spectrum auction, the government needs to work on long-term policy agenda for expanding broadband access throughout Pakistan instead of a revenue maximization approach.

While the Ministry of IT & Telecom has released Pakistan's first Spectrum Strategy, the wait for the spectrum allocation for 3.5 years might end soon.





# Realme 8 Pro:

## A Great Reason to Pay Attention to Realme

### Display

The Realme 8 Pro's screen is 6.4 inches across, which makes it a touch smaller than many other similar-price phones, and it's interrupted by a punch-hole cut-out for the front camera at the top left.

The display has a 1080 x 2400 resolution, which is pretty standard for... well, for any smartphone. It's the same resolution as most games, apps or streaming services you'll be using, though lower than the resolution of most top flagships. The refresh rate is 60Hz, which is generally standard for handsets at this price, though some push it up to 120Hz.

We found the screen looked quite good, with nice vibrant colors, which is to be expected since it's a Super AMOLED display. Now and then auto-brightness was a little off though, causing us to have to manually change how bright the display was. Surprisingly for a phone of this price, there's an in-screen fingerprint scanner here, which we found to work well. It was fairly fast to use and barely ever failed to pick up our thumb on our first attempt to unlock.

### Camera

The Realme 8 Pro has a 108MP main camera. That's joined by an 8MP ultra-wide, 2MP depth-sensing and 2MP macro camera, with a 20MP front-facer. In well-lit environments, pictures looked good, with rich detail and fair contrast. This was the case for vistas and closer subjects too.

Not everyone will care to take 108MP pictures though - they take up a lot of storage space, and some low-res cameras have bigger sensors, which 'see' more light. But in well-lit settings this is great. The ultra-wide camera also performed quite well, though colors looked noticeably different than on the standard camera. Thanks to having a high-res main sensor, the Realme 8 Pro is afforded up to 20x digital zoom.

We've got to commend the 16 MP front-facing camera, as selfies looked great - they were full of light and color. Portrait mode was surprisingly accurate when it came to adding background blur and tweaking a picture's settings.

Video recording here goes up to 4K at 30fps or 1080p at 60fps. There's a novelty camera mode called AI Mixed Portrait, which lets you video a landscape and then yourself, and stitch them together - it's not exactly a professional-grade mode but it's fun to play around with.



### Specs and performance

The Realme 8 Pro has the mid-range Snapdragon 720G chipset paired with 8GB of RAM, so it's not exactly a processing powerhouse, but we never found it slow.

We had no issues with the phone for gaming, as while it didn't always default to the highest graphical settings in games, it was always snappy when in game and rarely lagged or stuttered.

The Realme 8 Pro comes with Android 11, running the Realme UI 2.0 overlay.

### Battery life

The Realme 8 Pro has a 4,500mAh battery, and we found the phone easily lasted us a day, even if we were going on a little photoshoot or playing lots of games. A second day of use seems unlikely, though, unless your use is very limited.

Charging is snappy at 50W, and it took us less than an hour to power the phone back up to full. There's no wireless charging here, but that's to be expected for a phone at this price point.

Realme is a champion at offering fast charging for budget phones, so 50W is not a huge surprise, though it is still welcome. It's worth pointing out, though, that the Realme 7 Pro hit 65W.

## Smartphone Review



128GB Built-in, 8GB RAM, UFS 2.1



(Li-Po Non removable), 4500 mAh



6.4 Inches



Rear Camera: 108MP+ 8MP+2MP+2MP

Front Camera: 16MP

**PKR. 47,999/-**

### Pros

- Feels snug in the hand
- Cameras are good
- Fast charging

### Cons

- No 5G
- Screen 'only' 60Hz

### Verdict

The Realme 8 Pro is a superb phone for its price, which is to say, it's surprising that it only costs this much. Compared to its rivals it feels snug in the hand, takes impressive photos, and charges really quickly.



## Rentmycar.Pk: *Pakistan's First Car Rental Platform*

**Headquarters:** Karachi, Pakistan

**Basic Idea:** Car Rentals Marketplace, where Members can rent any car they want, from a Community of Local Car Owners and Car Rental Companies

**Founders:** Faisal Naeem Adil Naeem Kumail Mohib

**Category:** Online marketplace for Car Rentals and related services

**Website:** <http://rentmycar.pk>

**Founded:** 30th September, 2016

Rent My Car (RMC) is a nationwide community, whose mission is to connect car rental companies and local car owners with individuals and businesses looking to rent cars for any purpose.



By creating this online car sharing platform, that company aims to empower its users by giving access to an unparalleled selection of vehicles at competitive prices, while enjoying the convenience of renting cars when and where they are needed. RMC has rental solutions for everyone; renting a car by the day, week or month has never been easier. Management solution for corporate rentals, where RMC handles your business account while you focus on what is important.

Besides this, every Car Owner across Pakistan can turn their family car into an earning member. Investing in a car can truly go a long way now. And if you are a Car Rental Company, partnering with RMC will enable you to manage your business online from anywhere: Let RMC market your services and get you the best price for your inventory.



# SMART MOVES

## for Smarter Nation

### 'Pass Track': App to register incoming passengers amid coronavirus

In order to curb the coronavirus spread, the government has rolled out a "Pass Track App" application to maintain the data of passengers traveling to Pakistan and also to track them.

The travelers coming over has to submit/ Upload their PCR report and other information as required by the application which compliance to the state Policy for travelers coming over to the Islamic Republic of Pakistan in Covid-19 Pandemic. This application has been declared as a must to have before taking a Flight to Islamic Republic of Pakistan, as advised by the Government of Pakistan Health Care Policy for Covid-19.



### e-Taleem: radio school and educational portal for distance learning

The government has launched a radio school and an education portal to facilitate students across the country through a distance learning system. The government decided to launch the educational portal (e-Taleem) and the radio school to help students from across Pakistan smoothly continue their learning activities which had to be disrupted because of the pandemic.

Application provides a flexible environment to study from the comfort of home.

### e-Khidmat Maraakaz

e-Khidmat Maraakaz is the flagship project of Government of Punjab. Multiple services will be offered to the citizens under one roof.

e-Khidmat Maraakaz concepts to integrate seventeen governmental services under one roof for citizens, easing Citizens vs. Governmental inter-phase. These services include issuance of Warehouses Construction Permit (Lahore), Birth Certificate, Character Certificate, Death Certificate, Marriage Certificate, Divorce Certificate, Domicile Certificate, Token Tax, CNIC, Issuance of Fard, Motor Vehicle Registration, Vehicle Transfer Ownership, Route Permit, Learners Driving License, Nadra e-Sahulat and Traffic Fine Collection.



# TELECOM CAMPAIGNS

## Oppo F19 Pro- Fun with Every Shoot

Recently OPPO has launched the F19 Pro TVC. The brand ambassadors Asim Azhar and Maya Ali highlighted the key specs of the phone including the AI camera and sleek design. The tagline of TVC is “Fun with Every Shoot” which sound quite catchy and fully describe how F19 Pro's cameras work.



**Verdict: Impressive and Energetic TVC**

## Telenor - Jo Har Pakistani Chahy



Telenor Pakistan released a funny advert recently featuring Ahmed Ali Akbar. In this ad, he is so busy utilizing the services provided by the Telenor that he totally forgets about what he is saying, hence making the situations awkward. In this hour of time, when everyone is stressed out, the TVC helps to make a laughter to relax the mind. I like the ad because of its fun moments.

**Verdict: Good Effort**

## Standard Chartered Women in Tech Cohort 3 | 2021

Standard Chartered released such an inspiring ad on the launch of the Tech Cohort 3 programme. The performers did so well and the dialogues written for the ad were mind-blowing. The ad beautifully describes how a woman can step forward to bring a positive change in society. While watching the new ad, I felt so motivated. Overall, a great advert with a beautiful and inspiring feel.



**Verdict: An Inspiring TVC**

### PTCL Unlimited Internet

The recent TVC of PTCL unlimited internet is an ordinary TVC just like its previous TVCs. The ad highlights that PTCL provides family packages for unlimited download and unlimited streaming. It does not provide any other information about the number of packages and their prices. Overall, the advertisement is not so engaging.

**Verdict: Ordinary TVC with Less information**



### Jazz Super 4G

Jazz 4G new ad featuring Hadiqa Qiyani and Aadi Khan comes with such a different and nice concept. The ad highlights the struggle of a son to make his mother more confident and independent. The tagline of TVC is "Banain Super confident with Super 4G". Personally, I like the ad as I can see the classy touch in it.

**Verdict: Keep it up**

### Vivo V21 Series

Vivo has just launched its V21 series in Pakistan with the world's first 44MP OIS Selfie Camera featuring Dual Selfie Spotlight to light up your nights. The TVC features Fahad Mustafa and Hania Amir. The advertisement is quite modern just like the phone. It describes how its 44MP OIS camera work at the backend. The music and the actors have done justice to the advert.

**Verdict: Astonishing phone in astonishing TVC**





# TEENS' PRIVACY IN DIGITAL AGE



## HOW TEENS ARE BREACHING THEIR ONLINE PRIVACY?

Teens are breaching their privacy online using phones, the internet, and social media. Teens make social media profiles, share photos, videos and following things with strangers.

### SOCIAL PROFILES

Teens are sharing photos, videos on their social media profiles



### PERSONAL INFORMATION

Teen used to share school name, contact, and home address on social networks

### SHARING PRIVACY

Cell phone access and internet is root cause of sharing digital privacy



### EMAIL HACKING

Email hacking of teens disclose everything on social media profiles

## THREATS TO TEEN'S ONLINE PRIVACY

Plenty of social media and online dangers can pop up when teens are using cellphones connected to the internet and become the victim of the following:



### ONLINE BULLYING

Online bullies verbally & non-verbally abuse teens online



### SEXUAL

Sex -offender Sexual groom teen's online via social media



### MEDIA PROFILE

Teens leave Non-custom social media profiles



### VICTIM

Teens Become victim of Catfishing (being tricked by someone using a false identity) for designer



### HACKED

Social accounts of teens got hacked



### ADULT CONTENT

Teens got Exposure to Adult content

# TIPS

## TO PROTECT TEEN'S PRIVACY IN DIGITAL AGE

If you get to know teens can become victims of online predators, use the following tips to safeguard your teen's online privacy.



### PROTECT WIFI

Use password-protected Wi-Fi networks



### SCAMS

Teach them how to avoid email and phishing scams



### PUBLIC WIFI

Guide teens that they should not use public Wi-Fi networks



### CHECK PHONE

Check teen's cellphone manually to examine what they are doing



### SOCIAL APPS

Watch what kinds of social apps they have downloaded



### DATING APPS

Make sure teens have not installed online dating apps

## HOW DO PARENTS PROTECT TEEN'S DIGITAL PRIVACY?

Struggling and worried parents can use the OgyMogy parental control app on teen's cellphones to protect their online privacy.

### HOW TO USE OGYMOGY MONITORING SOFTWARE?

It is a parental tracking app that you can use on a teen's phone connected to the internet. It empowers you to become the witness of every activity of the teens online.

#### STEP 1

Install OgyMogy on teen's cellphones

#### STEP 2

Activate cell phone tracking app on teen's phone

#### STEP 3

Use dashboard to activate the following features



Screen recorder



Call recorder



Social media monitoring



Capture screen



Track GPS location



Monitor keystrokes



View browsing history



Read text messages



Listen to social media call



View share multimedia files

Every OgyMogy feature delivers instant information to parents using its dashboard when teens are sharing privacy with strangers and talking with online predators.

# Top Applications and Games for your Smartphone



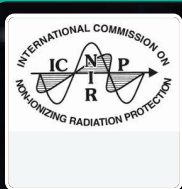
## Brave Private Browser: Secure, Fast Web Browser

Privately browse the internet, for free! The Brave Private Browser App is your fast, secure, and private web browser with ad blocker and pop-up blocker. Privately browse and search the internet without being tracked by advertisers, malware and pop-ups.



## Among Us!

Play online or over local WiFi with 4-10 players as you attempt to prep your spaceship for departure, but beware as one will be an impostor bent on killing everyone!



## Mealime Meal Plans & Recipes

Mealime is a simple way for busy singles, couples, and families to plan their meals and eat healthier. Plans & recipes are highly customizable so you can easily personalize a plan that works with your unique tastes and lifestyle. Join over 5,000,000 people who have used our meal plans to eat healthier, reduce stress, lose weight, save money, and live happier, more productive lives.



## Insight Timer - Meditation App

The number 1 free meditation app. Guided meditations and talks led by the world's top meditation and mindfulness experts, neuroscientists, psychologists and teachers from Stanford, Harvard, the University of Oxford and more. Music tracks from world-renowned artists. Join millions learning to meditate on Insight Timer to help calm the mind, reduce anxiety, manage stress, sleep deeply and improve happiness.



## Photomath

Learn math, check homework and study for upcoming tests and ACTs/SATs with the most used math learning app in the world! Got tricky homework or class assignments? Get unstuck ASAP with our step-by-step explanations and animations.





### Cookpad - Create your own Recipes

Looking for recipe inspiration? Look no further. Welcome to Cookpad, the world's largest community of home cooks where everyday, people just like you share thousands of recipes, ideas and cooking experiences.



### Anchor - Make your own podcast

Anchor is the easiest way to make a podcast, brought to you by Spotify. Now you can create your podcast, host it online, distribute it to your favorite listening platforms, grow your audience, and monetize your episodes—all from your phone or tablet, for free.



### AirDroid - File Transfer&Share

AirDroid helps to transfer files across platforms without USB cable and mobile data cost. Millions of photos and files are shared by AirDroid users in over 150 countries everyday. AirDroid is the best productivity app for you to share photos, videos, audios or any files with your friends and across screens.



### Textra SMS

Textra SMS with a bunch of great features, notably 180+ material design theme, bubble & app icon colors. Dark, black, light & auto-night / auto-android screen colors, multiple bubble styles, scheduled (future) SMS & MMS, stop during send, slide to delete, slide to call, quick snap camera, multi-select picture gallery, quick reply SMS popup and Android 11 bubble support, awesome MMS GROUP messaging, quick voice memos, GIFs, 21 text sizes, font options, message blocker / blocklisting, pin-to-top, automatic video & picture compression, plus heaps more!



### adidas Running App - Your Sports & Run Tracker

Ready to start your running & fitness activities? Whether you're training for a 5k, a marathon, or exercising for weight loss, our running app will help you achieve your goals. Track distance, time, speed, elevation, calories burned and other stats with the adidas Running app by Runtastic.



**vivo X60 Pro**

**Display:** 6.56 Inches

**Memory:** 256GB Built-in, 12GB RAM

**Camera:** 48MP+13MP+13MP

**Price:** 129,999



**Vivo V21**

**Display:** 6.44 Inches

**Memory:** 128GB Built-in, 8GB RAM

**Camera:** 64MP+8MP+2MP

**Price:** 59,999



**Samsung A52**

**Display:** 6.5 Inches

**Memory:** 128GB Built-in, 8GB RAM

**Camera:** 64MP+12MP+5MP+5MP

**Price:** 57,999



**Samsung A32**

**Display:** 6.4 Inches

**Memory:** 128GB Built-in, 6GB RAM

**Camera:** 64MP+ 8MP+5MP+5MP

**Price:** 39,999

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[www.phoneexpress.pk](http://www.phoneexpress.pk)





### **Poco F3 (8GB 256GB)**

**Display:** 6.67 Inches

**Memory:** 256GB Built-in,  
8GB RAM

**Camera:** 48MP+8MP+5MP

**Price:** 65,999



### **Infinix Note 10 Pro**

**Display:** 6.95 Inches

**Memory:** 128GB Built-in,  
8GB RAM

**Camera:** 64MP+ 8MP+2MP+ 2MP

**Price:** 29,999



### **Redmi Note 10 Pro**

**Display:** 6.67 Inches

**Memory:** 128GB Built-in,  
6GB RAM

**Camera:** 108MP+ 8MP+  
5MP+2MP

**Price:** 43,999



### **Tecno Spark 7 Pro**

**Display:** 6.6 Inches

**Memory:** 64GB Built-in,  
4GB RAM

**Camera:** 48MP  
(Tripple Rear Camera)

**Price:** 20,999



### **Oppo F19**

**Display:** 6.43 Inches

**Memory:** 128GB Built-in,  
6GB RAM

**Camera:** 48MP+2 MP + 2MP

**Price:** 39,999



### **Realme 8 Pro**

**Display:** 6.4 Inches

**Memory:** 128GB Built-in,  
8GB RAM

**Camera:** 108MP + 8MP+2MP+2MP

**Price:** 47,999



# HOW TO!

## How to use Facebook dark mode on iPhone and Android apps



Facebook dark mode is a new look for the social network that replaces its usual bright, white interface with black and shades of gray for both desktop and mobile. It's a small change, but an important one for many users.

It's a refreshing alternative to the standard color scheme, but that's not the only reason many users are looking forward to making the switch. Some people find white text on a dark background much easier to read, and although the jury is out on whether cutting down on blue light actually helps you sleep better at night, a darker interface certainly reduces glare when you're using the app after dark.

There's a potential benefit for your phone's battery, too. Researchers from Google have found that pixel color has a direct effect on power draw, with black pixels using significantly less energy than white ones. This is particularly true for devices with AMOLED screens, where pure black pixels are actually switched off. Swapping Facebook's bright, white interface to something darker could therefore help your mobile devices last noticeably longer between chargers.

It's worth bearing in mind that the look of Facebook dark mode might change before it's rolled out worldwide, or in response to feedback afterwards. The company has made some minor adjustments to WhatsApp dark mode since its release, adjusting contrast levels, and may do the same for other apps.

With that in mind, here's how to experience the dark side of Facebook on mobile devices.

### Facebook dark mode for iPhone and Android

It was a long time coming, but dark mode is also available for Facebook on iOS and android. To enable it, tap the menu icon at the top right of the app (for Android) or the three lines in the bottom right-hand corner (for iPhone) and select 'Settings and Privacy' (represented by a cog icon).

Here, you'll see the 'Dark Mode' option (with a moon icon). Tap this, and you'll see three options: on, off, and use system settings. The first two are self-explanatory, and the third will pick up whichever color scheme you've chosen for your phone's operating system.

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**A.S ELECTRONICS**



OFFICIAL SMARTPHONE

# V21 Series

— Sleek Design Perfect Shot —

44MP **OIS**, Selfie, Be the **Li**ght at Night



The product pictures and features shown are for reference only. Please take actual products as standard.  
The product shown is V21 and V21 Pro is only available on V21.