

Phone World

JAN-MARCH 2022



PAKISTAN'S DRONE REVOLUTION

**WHY WE NEED MORE TECH
INCUBATORS IN **PAKISTAN?****

WWW.PHONeworld.COM.PK



YOUR SMART DEVICE PARTNER

Focusing on
Customer Centricity
to Facilitate in a Better Way



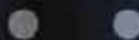
Largest customer
services network



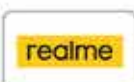
Personalized
Customer Support



Regional Language
Support

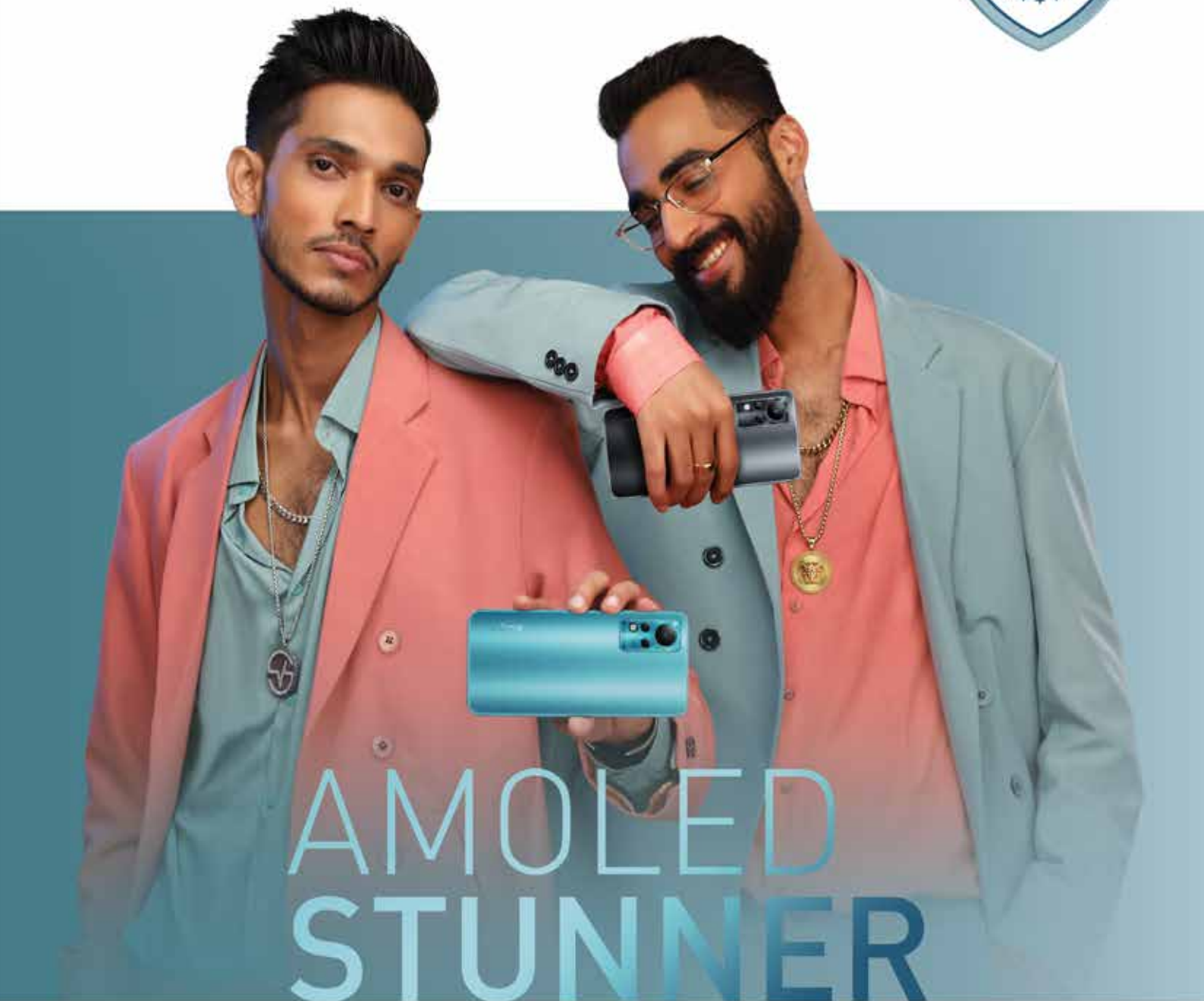


OUR PARTNERS



Infinix

NOTE 11



6.7" Amoled Vivid Display | **33W** Super Charge

Available in

RAM ROM
6GB+128GB

RAM ROM
4GB+128GB

Available Now

POCO M4 Pro

STARTING FROM

Rs. 44,999

BUY NOW





ADNAN KHAN
Managing Editor

Dear readers,

It is generally acknowledged that following the news on social media has become more important, more popular, and more influential than watching television news networks. The Ukraine-Russia crisis has proven the validity of this theory beyond any doubt. Since Russia started a full-fledge invasion of Ukraine on February 24, Ukraine's president Volodymyr Zelensky has quickly emerged as a symbol of resistance by using social media as a new-age war weapon. We have explored this interesting new phenomenon in one of our articles, "Russian-Ukraine Conflict and the power of social media".

The Mobile Device Manufacturing Policy set a 49 percent localization target by June 2023, a target that can be easily achieved since Pakistan has produced 24.66 million handsets in 2021. It is up from 13.05 million in the calendar year 2020, representing an 88 percent increase. Find out more regarding the developments in local mobile manufacturing in our article, "From Global to Local: What Mobile Manufacturing means for Pakistan?"

The crypto debate is making rounds in all corners of the world with entities having divergent views regarding its nature and future; Pakistan is no exception. Whether to ban the currency or provide support to crypto trading? Hot discussions are going on in Pakistan for some time now. We have also tried to put our point of view out there in our article, "Should Pakistan Ban Cryptocurrency?"

We have also added a variety of articles on some very interesting topics from local and international markets. You'll find some articles on 5G, Artificial Intelligence, drone technology, the importance of tech incubators in Pakistan, and much more in our current issue.

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 so that we can improve further.

Enjoy Reading...!!!

Sincerely,
Adnan Khan.

Feedback

info@phoneworld.com.pk
www.phoneworld.com.pk



Adnan Khan
Marketing Head & Managing Editor

Rizwana Omer
Senior Editor

Syed Shoaib Akram
Creative Designer

Fizza Atique
Nayab Khan
Sarah Khan
Onsa Mustafa
Sehrish Kyani
Usama Anjum
Contributors

Aqeel Shahid
Bureau Chief Karachi

Available @

Islamabad
Saeed Book Bank F7
Mr Book, F6
The Book Shop F7

Lahore
Feroz Sons, Z Block DHA
Kitabistan, H Block DHA Lahore
Nobel Books, H Block DHA
Variety Books Liberty

Karachi
Book Mart, Karachi Airport
Agha's Book Shop, Clifton
Fareed's Book Area, Ocean Tower
Mr. Old Books, Boat Basin
Hyperstar Dolman Mall

Peshawar
Welcome Book Shop, Saddar
London Book Company, Arbab Road



Printing:
GRAPHICS LINK
+92 300 9780309

Subscribe Now!!

& get four issues for just Rs.600

Payment:

☐

1. Cheque

I enclosed a Cross Cheque of RS _____ payable to Phoneworld.

☐

2. Bank Draft

I enclosed a Bank Draft of RS _____ drawn on the branch of any bank of Pakistan.

Contact information of the Recipient

Name: _____

Address: _____

Phone: _____

*Cheque & bank drafts should be in the name of "Phone World Magazine".
*Courier charges are included.

SUMMIT CON

NATIONAL

- 08** *From Global to Local: What Mobile manufacturing means for Pakistan*

TECH PERSONALITY

- 11** *Vitalik Buterin; The man who Co-Created Ethereum*

NATIONAL

- 12** *What's Impending 5G Inclusion in Pakistan*

NATIONAL

- 15** *Smart moves for Smarter Nation*

NATIONAL

- 16** *Why we need more Tech Incubators in Pakistan*

INTERNATIONAL

- 20** *How AI is changing Mobile Photography*

INTERNATIONAL

- 24** *Russian-Ukraine Conflict and the power of Social Media*

INFOCUS

- 26** *Exclusive Interview of Kelvinn Zeng
CEO Tecno Mobile Pakistan*

PRESS RELEASE

- 33** *Ufone Offers Most Economical 4G
Device Packages in Pakistan*

NATIONAL

- 40** *Should Pakistan Ban
Cryptocurrency?*

PRESS RELEASE

- 43** *Infinix Wins Asian Telecom Awards
2022*

DESI START-UP

- 45** *Tazah*

NATIONAL

- 46** *Pakistan's Drone Revolution*

INTERNATIONAL

- 54** *Games & Applications*



FROM GLOBAL TO LOCAL: WHAT MOBILE MANUFACTURING MEANS FOR PAKISTAN

by Onsa Mustafa

It's an era of mobile phone and telecom technologies. With its ever-increasing demand, mobile phone has already become a basic need for almost every person. Especially, after the COVID-19 pandemic, when the lockdown was imposed and the most convenient way to connect with others or perform our daily tasks was through the mobile phones, the demand for this gadget and related applications reached its maximum level. During the pandemic, the overall data usage also increased which in return, helped the telecom companies to gather more revenue hence contributing to the positive growth of the IT and telecom sector.

Pakistan itself has seen tremendous growth in the IT and telecom sectors over the past few years. No doubt, the inception of 3G/4G services in Pakistan has opened new avenues of growth and innovation in the country. With 191 million cellular subscribers, teledensity has reached 86.71% whereas, 3G/4G penetration stands at 49.94%. According to the Pakistan Bureau of Statistics (PBS), Pakistan's mobile imports

witnessed an increase of 7.63 percent in the first eight months of (July-February) the current fiscal year by reaching the value of \$1311.493 million to \$1,411.619 million.

So far, the establishment of local manufacturing plants have brought an investment of over \$126 million to the country

To boost the telecom sector, the Government had approved the local mobile phone manufacturing policy back in 2020. Pakistan Telecommunication Authority (PTA) in light of the policy issued Mobile Device Manufacturing (MDM) Regulations on January 28, 2021.

PTA has issued MDM authorization to 30 companies enabling them to manufacture

mobile devices in Pakistan. The establishment of these manufacturing plants has brought an investment of over \$126 million.

The Mobile Device Manufacturing Policy set a 49 percent localization target by June 2023, including 10 percent localization of parts of the motherboard and 10 percent localization of batteries. As soon as the companies have started manufacturing the mobile devices in the country, the mobile phone manufacturing industry saw a significant growth in revenues and an affirmative decline in imports.

With more than 200 million population and the ever-increasing sustainable demand for technology, Pakistan has become a very promising market for the IT and Telecom industry

According to the data revealed by PTA, Pakistan produced 24.66 million handsets in 2021. It is up from 13.05 million in the calendar year 2020, representing an 88 percent increase.

Moreover, the 4G assembled smartphones reached 10.06 million in 2021. However, commercial imports reached 10.26 million in 2021.

However, the local manufacturing plants have manufactured/assembled 1.53 million mobile phones including 0.86 million 2G and 0.67 million smartphones in January 2022.

The increase in local manufacturing has resulted in a decline in the imports of mobile phones. According to PBS, the imports of mobile phones decreased by 21.45 percent in February 2022 as compared to the previous month of January.

As a result of the Mobile Phone Manufacturing Policy, which contains duty incentives for enhancing mobile phone assembling in Pakistan, the majority of phones cheaper than \$200, are now assembled in Pakistan.

To achieve this milestone, various Chinese mobile phone manufacturers have played a key role. According to PTA, till November 2021, Itel topped the list by producing 3.91 million mobile devices followed by VGO Tel at 2.97 million, Infinix 2.65 million Vivo 2.45 million, Tecno 1.87 million, QQMEE 0.86 million, and Oppo 0.67 million. But these are not the only ones.

Samsung has also officially started manufacturing smartphones in Pakistan. The company is hoping to manufacture around 3 million devices per year in the country. Similarly, 2.5 to 3 million sets of Xiaomi would be produced per year in Pakistan in collaboration with Airlink Communication.

The import of manufactured or Completely Built Units (CBU) is on the decline while that of mobile phone components (CKD) is on the rise. During **July-November 2021**, the import of CBU decreased by 73% to USD\$ 179 million as compared to USD 661 million during the same period last year. This saved USD\$ 410 million in foreign exchange. In contrast, the import of mobile phone components for local assembly increased by 407% to USD\$ 674 million from USD 133 million last year.

The successful implementation of the Device Identification Registration and Blocking System (DIRBS) along with conducive government policies including the mobile manufacturing policy has created a favorable environment for mobile device manufacturing in Pakistan. It has also contributed positively to the mobile ecosystem of Pakistan by eliminating the counterfeit device market while providing a level playing field for commercial entities and has created trust amongst consumers due to the formulation of standardized legal channels for all sorts of device imports.

Local mobile phone manufacturing has not only helped the telecom sector by increasing its revenue growth. But it also helped the country in many different ways. For instance, the local manufacturing industry had created almost 50,000 jobs already. Samsung aims to use labor power for the manufacturing of mobile phones instead of machines which in return will produce millions of jobs for unemployed people of the country. It is also estimated that by increasing localization, production, and exports around 200,000 to half-million jobs in the country would have been created.

The successful implementation of (DIRBS) along with conducive government policies including the mobile manufacturing policy has created a favorable environment for mobile device manufacturing in Pakistan

According to PTA, only 53% of the population of the country is using smartphones.



The remaining 47% population is still using 2G devices. This also indicates that Pakistan is still lagging behind in the 5G race. As per GSMA, this number is still low and by 2025, 74% of the population of Pakistan will be able to use smartphones. One of the main reasons for this is the high mobile prices. The lower class does not have the capacity to buy expensive or even mid-range phones. The local mobile manufacturing will definitely lower the mobile prices and the availability of cheaper phones will increase which in return, will increase the smartphone penetration in the country. If the mobile manufacturing industry keeps on going at this pace, in the near future, internet penetration will also increase. Hence, the whole digitalization process will speed up.

What more needs to be done?

Although, the mobile phone manufacturing industry is playing a good job in aggregating revenue growth. But there are still many ways to boost this growth. According to PBS, during the first five months of the fiscal year 2021-22, Pakistan earned \$1051.050 million by offering various information technology IT services exports to other countries. Whereas, in August 2021, Pakistan has exported 5,500 units of 4G smartphones carrying the "manufactured in Pakistan" tag to the United Arab Emirates (UAE). Although it was a big achievement for the country, the number of exported devices is still very low. If the companies managed to increase this number, the revenue growth will also increase.

The government has plans to export the locally assembled phones to the markets like Africa, Central Asian Republics, and Afghanistan. It is a good initiative because Pakistan is currently manufacturing low-end mobile phones and it will be appropriate to export the phones to those countries that are preferably using the low-end phones.

Despite local manufacturing of mobile phones, the import bill is rising. The reason behind this is the import of high-end phones priced above \$1000, a market segment that is not being manufactured in Pakistan currently. The PBS data says that mobile phones worth \$1.41 billion were imported during the first eight months (July-February) of current fiscal year as compared to \$1.31 billion during the same period of last year, registering a growth of 7.63 percent. So, if the country starts producing high-end smartphones, the import bill will decline.

The government has plans to export the locally assembled phones to the markets like Africa, Central Asian Republics, and Afghanistan

The current government has proposed the Finance bill 2021-22 recently which indicates a great tax hike. In the new bill, the government has restored the 17 percent sales tax on computer and IT equipment imports. Mobile phones worth more than \$200 that are imported in CBU condition are also subject to a 17 percent sales tax.

Although this increase in taxation is uncalled for but it creates an opportunity for local manufacturers as high taxation discourages imports

Although this increase in taxation is uncalled for but it creates an opportunity for local manufacturers as high taxation discourages imports. Therefore, when the devices are manufactured locally, there will be no tax and the prices of the phones will automatically drop and people will prefer locally manufactured phones instead of imported ones.

The lack of a component ecosystem is also a hurdle in the way of boosting the manufacturing industry in the country. Many electronic and non-electronic components are required to make a smartphone. Each phone needs component parts and many of the manufacturers of these parts already have deals with other brands. It is currently difficult to manufacture the phone from scratch. The assemblers are importing mobiles in semi-knocked down (SKD) condition, which are then assembled in Pakistan.

It's not only the local production of cellphones but also a host of opportunities which it brings. From employment to investment and from export opportunities to local capacity building, it carries immense potential. If the growth rate keeps on increasing at this pace, in no time, Pakistan will be considered as one of the leading smartphone manufacturing hubs just like China and India. This will attract foreign investment, save foreign exchange on mobile phone imports, earn foreign exchange via exports and create job opportunities for local people.





Vitalik Buterin; Russian-Canadian Programmer and Writer

(Born 31st January 1994,
in Kolomna, Russia)

Vitalik Buterin is a Russian-Canadian writer and programmer and has been involved in the Bitcoin community since 2011, co-founding and writing articles for Bitcoin magazine. He is primarily known as the one behind Ethereum, a blockchain platform that operates as a world computer for decentralized applications, or DApps.

Buterin traveled around the world for six months in 2013 to speak with Bitcoin (BTC) developers. He understood that he could construct a new, possibly superior version by iterating on the Bitcoin blockchain. To explain this idea, he linked Bitcoin to a calculator and a future blockchain to a smartphone and applied the same principle of improving the system's strength by making it more general-purpose to blockchain networks. Bitcoin is the world's first cryptocurrency, while Ether (ETH) is a digital currency based on the Ethereum blockchain network.

Buterin co-created Ethereum, the blockchain that supports various functions including developing apps and programs with the power of cryptocurrencies such as Ether. Smart contracts, which are essentially programs that can be saved and operated on the Ethereum platform, are how the platform accomplishes this.

Buterin was awarded the Thiel Fellowship Award in 2014 to bring his innovative scientific and technical projects to life. He has also won the World Technology Network (WTN) prize for IT software in 2014, defeating Mark Zuckerberg of Facebook. He also made it to Fortune 40 under 40 list and Forbes 30 under 30 lists. In 2018, the University of Basel awarded Buterin with an honorary degree. At the Dies Academicus — an annual celebration of the university's establishment — he was honored by the institution's Faculty of Business and Economics for his work on blockchain development.

Buterin expects that Ethereum will be "ruling the Metaverse" in ten years. The metaverse is an idea for a vast virtual world where people can interact with one another and with digital objects as avatars.

**The man who co-created
Ethereum**

What's impeding 5G Inclusion in Pakistan?

by Nayab Khan



The next-generation mobile communication network (5G) is a heterogeneous network with a competitive edge in the field of wireless communication. The 5G network will provide users with an uninterrupted connection. In many developed economies, 5G is gaining traction. With reports of 5G network rollouts and the availability of 5G-enabled devices, both suppliers and operators have confirmed this view.

On the other hand, many emerging countries like Pakistan, are trailing behind. In Pakistan, obstacles include a low return on investment, a lack of discretionary income, and a lack of urgency when it comes to innovation. (National R&D investment in Pakistan, for example, is only 0.3 percent, compared to 0.8 percent in India and 2.0 percent in China.) These and other challenges make 5G deployment more difficult and interesting at the same time.

3G/4G penetration is increasing at a remarkable pace. According to statistics from the Pakistan Telecommunication Authority (PTA), the number of 3G and 4G subscribers has touched 106.68 million by the end of November 2021. But the potential for 3G/4G uptake is way more. Pakistan has a large population with decent financial growth potential, dynamic urban centers, the ability to quickly access suitable 4G/5G spectrum, and underdeveloped fixed-line infrastructure.

Pakistan has a large population with decent financial growth potential, dynamic urban centers, the ability to quickly access suitable 4G/5G spectrum, and underdeveloped fixed-line infrastructure

Importance of 5G for Pakistan

High-speed internet access, digital identity frameworks, and multi-sided platforms are the basis for successful digital citizenship, rich digital lifestyles, and global digital commerce in digital economies.

As part of the Fourth Industrial Revolution, mobile is at the heart of Pakistan's national development strategy and progress along the digital society route, helping to bridge connection gaps, improve financial inclusion, and sustainably change verticals. Pakistan's mobile sector is large and growing in importance. It is a significant contributor to the economy and is changing the way people, corporations, and government entities operate and communicate.

5G is significant not just because it can handle millions of devices at ultra-high speeds, but also because it has the potential to change people's lives all over the world. Access to 5G technology has the potential to improve mission-critical services that influence today's safety and security. The government is implementing exemplary measures for early digital inclusion and timely adoption of cutting-edge technology, leading to the socio-economic well-being of our people, with the belief of transforming Pakistan into a "knowledge-based economy."

Pakistan, not Ready for 5G

The World Bank report commissioned by the Ministry of Information Technology and Telecommunication was aimed at examining Pakistan's readiness for 5G. The final report, "Pakistan: Telecommunications Advisory Assistance, 5G Readiness Plan for Pakistan", stated that Pakistan's current telecommunications market has been analyzed to determine readiness for 5G through comparison with neighboring countries and global benchmarks.

The findings of these reports were extremely in contrast to Pakistan's ambitious 5G plans for 2023 and prompted a whole new debate on MoITT's performance. According to the World Bank, Pakistan is not yet 5G ready because there are several factors to address to facilitate market readiness,

including a lack of large contiguous blocks of affordable spectrum, broader access to fibre backhaul, and widespread availability of affordable 5G smartphones and other devices, all of which are necessary preconditions for success.

According to the World Bank, Pakistan is not yet 5G ready

Despite years of 5G preparation we still have to overcome a number of issues so that the 5G era could ultimately begin in Pakistan. There are a number of issues that are not being met in practice as predicted theoretically. Coverage area, spectrum efficiency, latency, interference, energy efficiency, and power consumption are some of the problems.

There are a number of issues that are not being met in practice as predicted theoretically. Coverage area, spectrum efficiency, latency, interference, energy efficiency, and power consumption are some of the problems

IMT spectrum management policy

Pakistan's IMT spectrum management policy as being the key factor that has held back the sector in fully investing in 4G deployment and sector competition. Furthermore, IMT Spectrum has been priced such that only the market leaders can afford to participate, further hindering Pakistan's 5G-readiness.

Assistance for MNOs

To start and expand their services, mobile operators want efficient auctions, low licensing costs, and some amount of future assurance. As a result, government and regulator must establish a medium to long-term spectrum plan, update it on a regular basis, and guarantee that operators successfully employ it.

Further to that, authorities should also try reducing spectrum prices to allow the MNOs to concentrate on service rollout and 5G ecosystem development in Pakistan. Mandated 5G coverage and QoS levels should also be kept at reasonable levels, handsets and data taxes to be removed or at least minimized to facilitate the rapid adoption and uptake of services, and fibre proliferation to be done urgently along with a plan to enhance wireless backhaul frequencies

government and regulator must establish a medium to long-term spectrum plan, update it on a regular basis, and guarantee that operators successfully employ it

RoW leases

Leasing RoW assets may be a lucrative method to augment your income, especially in countries where there is a lack of either an investment-friendly national RoW policy or its execution or both. Pakistan is in a similar scenario since it lacks a strong tariff and legislative restrictions on fiber-laying rights of way.

Quality of Service

There are two causes for Pakistan's low network performance:

- (1) The regulator's thresholds and benchmarks in the 3G/4G licenses of operators were kept low.

For 3G and 4G customers, operators must only maintain data speeds of 256 kbps and 2 Mbps, respectively.

- (2) The majority of users are more concerned with money than with service quality. The low ARPU in Pakistan demonstrates this: in 2Q19, Telenor's Pakistan branch had an ARPU of only 12 NOK, less than half of Telenor Myanmar's 25 NOK/month.

Therefore, MNOs must make trade-offs between coverage and capacity. These two variables have a direct influence on KPIs (key performance indicators) including voice quality and, data rates among other things.

Market Readiness

Only high-end imported phones come with 5G connectivity such as Samsung Galaxy S22 ultra, iPhone 13 Pro, Xiaomi 11T pro, etc. Low-budget phones do not have 5G connectivity and most of the people in Pakistan have low-budget phones. Most of the phones that are being manufactured in Pakistan are mainly 2G as well. Hence, before starting the 5G services, there is a strong need to create a 5G device ecosystem. So, when the 5G services finally start, people could quickly switch to the 5G network.

The 5G is in an emergent stage of development in most countries, yet the debate is escalating over the lucrative rollout of the

the technology which is the new global wireless standard. This is very challenging for the governments of developing countries. The aspects that have contributed to the cost-effective rollout of the 5G technology amounts to standardization of LTE, enhanced spectrum efficiency, and allocation of additional spectrum.

before starting the 5G services, there is a strong need to create a 5G device ecosystem

The Digital Pakistan drive, which started in 2018, aims to promote connectivity, improve digital infrastructure, increase investment in digital skills, and promote innovation and technology entrepreneurship. Pakistan though believing in digitization as a pillar of growth has yet to materialize on 4G LTE and existing spectrum auction. The Digital Pakistan drive, which started in 2018, aims to promote connectivity, improve digital infrastructure, increase investment in digital skills, and promote innovation and technology entrepreneurship. Pakistan though believing in digitization as a pillar of growth has yet to materialize on 4G LTE and existing spectrum auction.

Pakistan though believing in digitization as a pillar of growth has yet to materialize on 4G LTE and existing spectrum auction





Pakistan Launches Biometric National ID App

NADRA has launched a new mobile app that will allow people to register in the country's National ID program through their smartphones. The Pak-ID app is available for Android and iOS devices, and is capable of biometric face and fingerprint capture and document scanning.

The app will make it easier for people to apply for a National ID card, since it allows people to submit their information remotely. Pakistani citizens can complete their application anywhere, even if they are not in the country, and do not need to make the trip to a government enrollment office.



PITB's E-Abiana System to Facilitate Farmers

PITB has collaborated with Punjab Irrigation Department to launch a smart and efficient solution called E-Abiana system to facilitate the farmers. The E-Abiana system encompasses a digital mechanism for the automation of the water revenue collection system and fines. It is a solution for the payment of water tax via e-Pay Punjab. It is an easy-to-use system and will greatly help the farmers of Punjab to clear their outstanding dues.

E-Auction Excise and Taxtion Punjab

E-Auction Punjab number plate auction is a premium online service that provides user the opportunity to choose their desired plates in an online auction for others to bid on. It offers buyers an excellent opportunity to purchase registration marks securely in an online auction environment.





WHY WE NEED MORE TECHNOLOGICAL **INCUBATORS IN PAKISTAN?**

by Sarah Khan

“Technology incubators invest in and actively help commercialize complex technologies. They concentrate on taking your concept to the next level by building a business around the technology – with the aim of growing globally competitive hi-tech businesses.”

The first image that pops into our mind when we hear “tech incubator,” is of something like Silicon Valley, big tech machinery and equipment packed up in a room. In reality, it is where the technology one could barely imagine is already going through a test run. This image is not far from reality. Tech incubators are supporters of startups.

Tech incubators open new avenues and opportunities for new startups. The main focus is on the essential concept, innovating it, and taking it to the next level. Tech incubators are a great way for starting tech companies to develop their business plan and connect with investors.

The great thing about incubators is that they are open for all businesses irrespective of their growth stage whether they are

in the earliest-stage ideas to established companies looking to rebrand or develop a new product or service.

Tech incubators are a great way for starting tech companies to develop their business plan and connect with investors

How do Tech incubators work?

In a Tech incubator, more than one company works together and helps new startups. The tech incubators are mostly non-profit, and they have an agenda of helping and kick-starting the new startups. The incubators do not provide the initial startup investment or money to the starter nor do they take any profit percentage from the starter they help launch.

The tech incubators provide the startups and the entrepreneurs with an already made network of resources that help starters turn their ideas into big profitable businesses. When the new business kicks off, new job opportunities are created in the region and the local economy starts flourishing with a fresh supply of money.

It also encourages others to take risks, bring out their ideas to the front and create many different breakthrough technologies.

Furthermore, the tech incubators provide mentorship in various fields. They also help in business services like accounting and legal. The tech incubators have a broad network of potential funders and investors, whichever is interested in investing in the new ideas. With the help of tech incubators, the starters can focus all their energy on developing the next groundbreaking technology.

Tech incubators in Pakistan?

A few years back entrepreneurship was considered as one of the riskiest things to opt for and a total waste of investment, time, and effort. Now things have changed, for the better. One of the reasons for the positive change is the success of small startups along with easy access to the internet.

Now we have a number of Tech Incubators like Plang, The Nest i/o, LUMS Center for Entrepreneurship, Microsoft Innovation Center, National Incubation Centre, that are enabling the entrepreneurs in their struggles.

Now we have a number of Tech Incubators like Plang, The Nest i/o, LUMS Center for Entrepreneurship, Microsoft Innovation Center, National Incubation Centre, that are enabling the entrepreneurs in their struggles

Why we need more Tech incubators?

During the press conference to announce Nokia being acquired by Microsoft, Nokia CEO ended his speech by saying "we didn't do anything wrong, but somehow, we lost."

This growth in young startups and an increase in entrepreneurship represent a tremendous signal however it is a reality that hardly 10 percent of those new companies are able to sustain in the market within the preliminary ten years. This lack of sustainability is particularly due to the lack of awareness and the inability to respond to customer preferences, marketplace demands, and technological adjustments.

Entrepreneurship can be an incredibly profitable experience, however, younger entrepreneurs want proper guidance and a platform to transform their raw business concept into a profitable business. For this purpose, diverse incubation and acceleration facilities have been established throughout the country.

More incubators are needed because they provide mentorship that is needed by the start-ups. Tech incubators are a gateway to a broad network.

Entrepreneurship can be an incredibly profitable experience, however, younger entrepreneurs want proper guidance and a platform to transform their raw business concept into a profitable business

The other important help that tech incubators give to the start-ups is tech development. The start-ups can focus more on the other sides of their startups like sourcing their capital and marketing. A start-up needs a specific environment where they can channel their energies to create something big and innovative. The tech incubators provide a workspace and environment for start-ups to grow and flourish in.

It is a known fact that the talent from Asia especially South Asia is unmatched. According to a recent report, in the past five years, 2.7m Pakistanis have left Pakistan in search of a better future in foreign countries.

In the past five years, 2.7m Pakistanis have left Pakistan in search of a better future in foreign countries

If these skilled, talented, and educated people get the right environment here in their Motherland, it will benefit the country in ways that will help Pakistan in becoming a developed country. Tech Incubators if are established and opened for the different classes of Pakistan, talents from around the country will have an input to the technological development of Pakistan.

More than half of Pakistan's population is underprivileged and the most talented, hardworking, and intelligent individuals belong to this underprivileged class. If the Pakistan Government takes steps in developing such centers and incubators that facilitate this class, we will see a great rise in Pakistan's technological development. Also, the Tech Incubators should work in collaboration with the education institutions, so the talent can be recognized and polished in the early stages.

Our institutions including family, education, social and political institutions should be open to new ideas and have the acceptability to the new emerging ideas. They should encourage youngsters to think out of the box. With the same old conservative mindset, even if we have Tech Incubators associated with our education systems, will not bear any fruit. The mindset needs to be changed and the integration and acceptability of the technology will go hand in hand with the tech incubators setups in our country.

Pakistan is a country with a population of over 220 million and out of the total population, 60 percent consists of youngsters (elderly 15-24). Unluckily, the majority of this youth stays unemployed because of a lack of job opportunities however the adaption of recent communication technology can bring the increase of a tech-based entrepreneurial culture in the country.

The adaption of recent communication technology can bring the increase of a tech-based entrepreneurial culture in the country





VISUALIZE, CAPTURE & CREATE WITH ALL-NEW **VIVO V23 5G**

You're in a smartphone retail store, and you need to find a jaw-dropping handset but only have a limited amount of time to look and spend. You go into the store to get the greatest phone without having to run, but things take a terrible turn. The smartphone perplexes you by failing to satisfy your expectations in terms of appearance, color, and features. It can be confusing and, more significantly, stressful to choose whether or not a smartphone would complement your style. This is a pretty common smartphone purchasing scenario, and most people leave feeling defeated—until they learn about the ultimate and inspiring handset, the Vivo V23 5G.

How does it stand out?

The V23 5G demonstrates that Vivo knows how to design a flagship phone for power users, as it incorporates the greatest feature while also offering a ton of upgrades.

18 | Phoneworld.com.pk

For starters, the smartphone comes with a great camera, a nice screen, long battery life, and fast enough to do all the work, social networking, and gaming you want to pack into a day.

After all, upgrade cycles and features are getting limited to each brand in the niche market. People keep holding onto their phones for longer. Thus, they're looking for an advanced camera and strong features that will bring off the best to the table to satisfy their requirement. Most top phones, believe it or not, are quite close in terms of user experience, but the Vivo V23 5G has set itself apart with its high-tech specifications.

The technology you can't miss!

The V23 5G brings a high-resolution 50MP AF Portrait Selfie camera on the front to capture stunning HD images at any point of the day.

It comes with Eye Autofocus on the front camera that uses advanced algorithms to track and focus on moving selfie subjects. It can track eyes no matter where they move or what emotion they carry.

Eye Autofocus smoothly glides on near and far frames so that the users don't need to stare at the camera to capture the greatest moments. V23 5G has a 50MP HD Customized Sensor (50MP JNV) on the main selfie camera that comes with the latest ISOCELL 3.0 technology to increase light sensitivity that allows the camera to capture light from various angles with utmost ease.

The dual front camera system of the V23 5G achieves a 105° wide-angle field of view with an 8MP Super Wide-Angle Camera providing an extended field-of-view which is very helpful to capture friends at house parties and family lunch tables in a garden.



V23 5G offers enhanced capabilities to users with AI Extreme Night Portrait mode which can be used on the Super Wide-Angle Camera and Super Wide-Angle Night Selfie. This helps users to take super wide-angle portraits even in the dark surroundings supported by Dual-Tone Spotlight. It does not end here, the smartphone also comes with three Portraits - Party Portrait, Flash Portrait, Multi-Style Portrait to take selfies experience to a new range.

The main rear camera setup offers - 64MP with the large GW1 image sensor with 0.8µm large pixels, which also provides commendable light sensitivity. Followed by two secondary cameras: an 8MP wide-angle lens and a 2MP macro camera. The setup fulfills the needs for various photography types ranging from landscape photography to microphotography. It also has some interesting features like Super Night Mode, Bokeh Flare Portrait, and Ultra Stabilization for the perfect photography experience.

Powerful Performance with Extended Space

V23 5G is a thoughtfully created handset with smart incorporation of more flavorsome custom built to delight users with fast performance and strong battery support. V23 5G offers a flagship performance using MediaTek Dimensity 920 processor that brings forth fast app installation and start-up, dual mode and by to the users on the go together with a 90Hz refresh rate display. The features like Extended RAM 2.0 feature are ideal to store more apps, photos, videos, and work-related files without paying extra for storage. Additionally, Liquid Cooling System, Ultra Game Mode comes in handy for heavy gaming and editing apps. 44W FlashCharge allows a strong 4200mAh (TYP) battery to charge up in no time.

Avant-Garde design that reflects a piece of art

V23 5G is a unique smartphone that carries a luxurious look and feels created using an iconic Color Changing Fluorite AG Design technology.

It is a new age mechanism that supports the phone body to gradually change its color upon exposure to ultraviolet light and after about 30 seconds under the sun. For instance, the Sunshine Gold variant of V23 5G turns from a light ice blue and pink-orange finish to a blue-green gradient look.

The design looks unique, modern, convenient, and appealing. This technology is a result of vivo's year cross-industry and cross-discipline research for color-changing surface material.

Final Verdict

All-inclusive V23 5G is an able-bodied smartphone that has turned the tables in the smartphone industry. The rich features and ultra-modern design are perfect to expedite the upgrading lives of young and diverse consumers of Pakistan.

The device is available in 12GB RAM + 256 GB ROM variant across Pakistan for Rs 89,999 only. Grab yours today.



HOW IS AI CHANGING MOBILE PHOTOGRAPHY

by Sehrish Kiyani





Smartphones have emerged as an essential part of most people's lives. Over the last years, artificial intelligence has also become a crucial part of smartphones. Smartphone manufacturers like Apple, Huawei, and Oppo. Xiaomi are leveraging AI into their offerings, particularly in the camera section.

What is Artificial Intelligence (AI)?

Artificial Intelligence (AI) is a branch of computer science that duplicates human information in machines by absorbing enormous amounts of data from their surroundings, learning from them, and adopting logical actions without the need for human intervention. In simple terms, Artificial Intelligence allows a machine to learn and solve problems like a human.

AI in Smartphone Cameras

When Google Photos was first released in 2015, it was a clear display of how effective a combination of AI and photography might be. Overnight, thousands of untagged photos in users' disorganized libraries were transformed into searchable databases.

Artificial Intelligence allows a machine to learn and solve problems like a human

The AI Camera does the heavy lifting in the photography department previously reserved for Professional Photographers. Due to the nature of their job, they understand a thing or two about what it takes to make quality images. These include camera setting and image processing, automatic shutter speed and exposure, saturation, color depth, dynamic range, and also contrast.

When Google Photos was first released in 2015, it was a clear display of how effective a combination of AI and photography might be

AI Camera does automatic scene recognition. Once you point your camera in the right direction, the AI Camera takes over to automatically tweak the settings behind the scenes for that killer shot.

Artificial intelligence is used in a variety of forms in the field of photography. Following are the uses of AI in photography:

Depth Effect

Without the use of heavy camera equipment, we can now shoot exceptionally high-quality photographs and films. Many high-end cameras have included two rear cameras in recent years to provide a portrait mode that can produce the "bokeh" effect (Japanese for blur), in which the subject is in focus while the backdrop is attractively blurred. However, we may see this change again in the future, with an AI camera based on Machine Learning (ML) algorithms replicating the effect. These algorithms become smarter with time and have been "trained" to determine which area of an image is the main topic, allowing the backdrop to be blurred.

Image Enhancing

Artificial intelligence also helps us to enhance image quality. The format of images can be changed by using a technique of AI, known as Deep Convolutional Neural Networks (CNNs). By using this technique, we can recognize particular features (such as a wall or skin) and add extra information. It can scale a JPEG image up to 4 times without losing quality in this way.

AI Assistance

Arsenal (AI assistant) is a computer-assisted photographic aid. Arsenal has some impressive capabilities of artificial intelligence which manage the camera's.

settings based on the scene being photographed. Its powers are built on the foundation of neural networks. In general, the approach entails recognizing the image's content, comparing the results to the hundreds of photographs it has been trained on, and then recommending the best picture to opt for based on various parameters.

Convolutional Neural Networks is a AI technique that can scale a JPEG image up to 4 times without losing quality in this way

Capturing Daily Life

Artificial intelligence has made easiness in capturing our daily life moments. A wearable camera is known as Google Clips boosts AI's capabilities to greater levels. The gadget is intended to "catch and save moments" from everyday life. When the camera is turned on, it will begin capturing what it sees, and using AI, it will keep the "highlights" while discarding the undesired bits (for example, when a hand blocks part of the camera). The clips are then sent to your phone, where you can modify them and select your favorites.

Voice Activated Camera

Voice-activated cameras have gradually made their way into smartphone cameras. It refers to a camera's capacity to recognize human speech and respond appropriately. For the past few years, smartphone cameras have included "Google Now" and "Siri," which allow you to take pictures and record movies without having to tap your phone. Simply say the necessary words, and it will recognize your voice and perform the desired action.

AI assists you much in photo editing, in addition to producing outstanding photos and filming unique and stylish videos. There are a variety of professional and free photo editors that employ Artificial Intelligence to provide us with magical effects. There are some incredible picture editing applications available that take mobile photography to the next level.

Photoshop, Photolemur, Luminar AI, Prisma, Topaz Labs, and, Quickai are just to name a few.

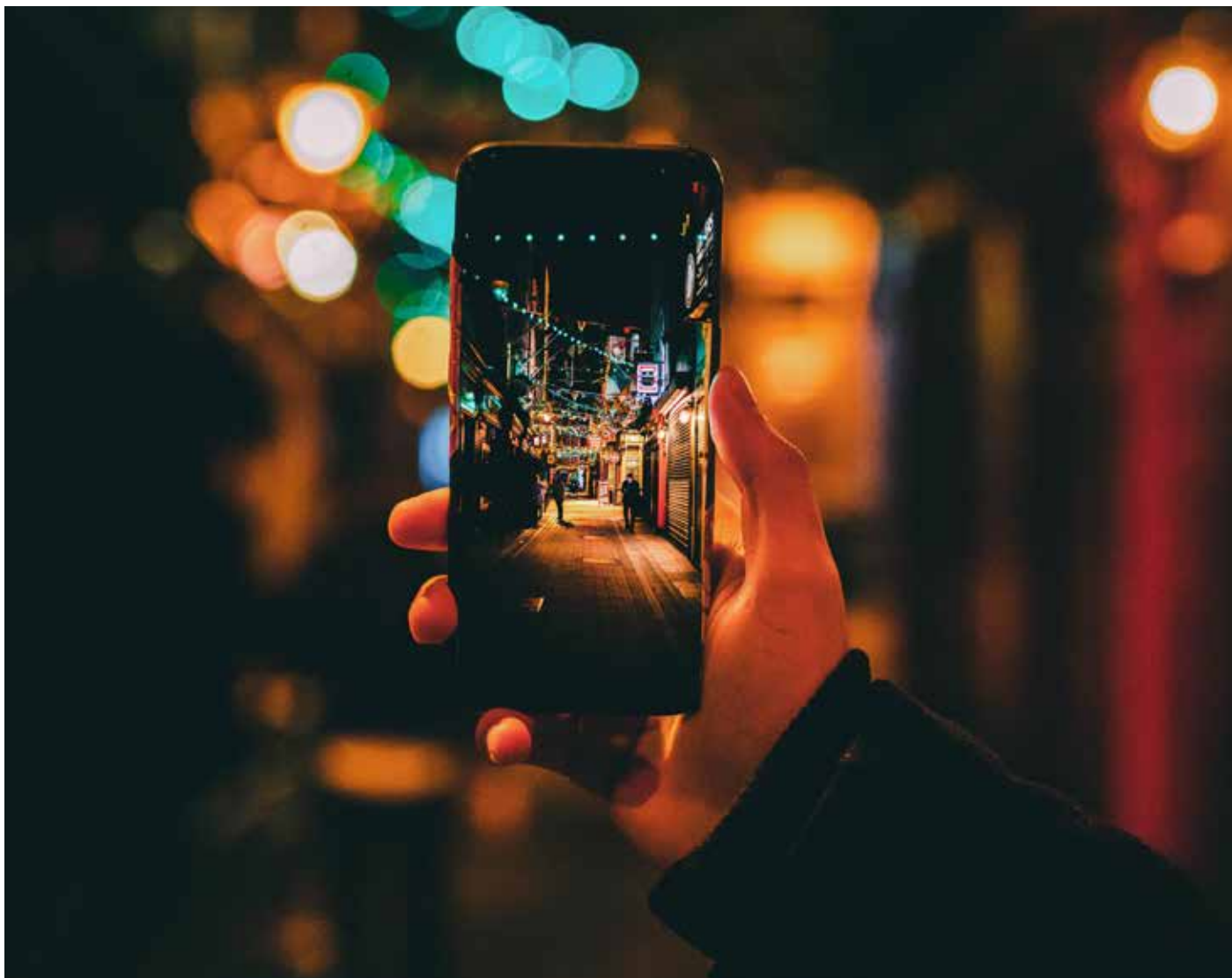
The integration of Artificial Intelligence in the cameras of smartphones is just the tip of the iceberg – there is more to come in the coming years that will mesmerize you. AI is the future of smartphone cameras and beyond!

Benefits of Artificial intelligence in smartphones

Language translator – With AI, a smartphone can without difficulty translate different languages without the need for active internet connectivity

User behavior – artificial Intelligence is designed to learn and adapt over time. On a mobile smartphone, the AI may analyze your usage pattern and begin incorporating it daily.





You'll be putting the phone on silent in the workplace, on Bluetooth at home and AI might also learn it. For this reason, it could automate these processes for you gradually, helping you save time.

Voice assistants – Voice assistants, have turned out to be a new normal for quite some time now. However, voice assistants have progressed, all thanks to better artificial intelligence integration. Therefore, they not only reply to your queries but even perform tasks which include searching for music, putting an online order, typing a message, and additionally producing the sounds of animals to surprise your kids. The greater artificial Intelligence (gadgets) will learn about an environment that they're kept in, the greater they'll evolve and enhance.

A great thanks to the advent of smart cameras, professionally-captured photographs can now be captured with such small devices that may be carried in your pockets.

AI-enabled smart featured smartphones enable mobile devices to create flawless and stunning images. Almost every modern smartphone from the mid to high range is already geared up to handle camera AI applications. The cellphone marketplace is moving closer to this kind of mobile photography not just because of the AI hype but also because it's what users never knew they wanted.

every modern smartphone from the mid to high range is already geared up to handle camera AI applications

It might all seem like a fad for now. After all, everyone is jumping on the AI train. Pretty soon, however, camera AI isn't going to be on a banner but simply a bullet point. Smartphones that don't have the futuristic technology will be shunned as an artifact of the past. It's going to undoubtedly be useful, helping users take even better photos without really thinking much about it. However as with anything nowadays, every new, state-of-the-art characteristic comes with a price. And often that price is your data.

A portrait of Volodymyr Zelenskyy, the Ukrainian President, wearing a dark suit and tie. He is standing in front of a blurred background that includes the Ukrainian tricolor flag on the left and a map of Ukraine on the right.

RUSSIAN-UKRAINE CONFLICT AND THE POWER OF SOCIAL MEDIA

by Nayab Khan

It is generally acknowledged that following the news on social media has become more important, more popular, and more influential than watching television news networks, which we always used to use to find out what was happening in the world. The Ukraine-Russia crisis has proven the validity of this theory beyond any doubt.

Since Russia started a full-fledge invasion of Ukraine on February 24, Ukraine's comedian-turned-president Volodymyr Zelensky has quickly emerged as a symbol of resistance and unification, even among his toughest opponents.

The 44-year-old has addressed the country in a succession of self-shot videos taken on his phone and shared on social media, often wearing a casual green military T-shirt.

Volodymyr Zelensky, a man forced into the deadliest center of Europe's bloodiest battle in over 80 years, is maybe the world's most beloved figure right now due partly to his comfort with social media.

Standing on the streets of his country's capital city, publicly opposing Russia's military forces, one of the world's most dangerous armies, after informing another superpower, the United States, that he requires ammunition rather than a ride to safety.

Social media: A new-age war weapon for Ukrainians

Social media is changing the way wars are fought today. The platforms have become important places to recruit fighters, organize action, spread news, and propaganda, and — for social scientists — to gather data on conflicts as they unfold.

Social media is changing the way wars are fought today

President Zelensky and regular Ukrainians have been using social media to highlight the conflict's brutality and propagandists spreading false information.

The Chinese-owned app Tiktok has proven to be particularly well-suited to chronicle the conflict previously dominated by dancing and lip-syncing videos.

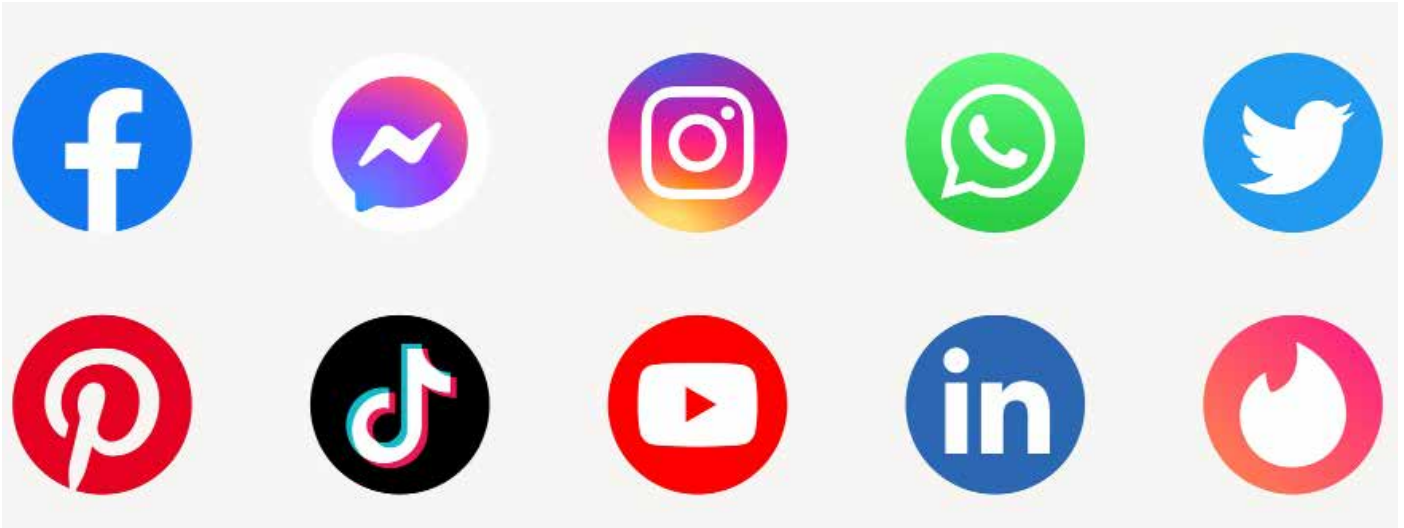
Despite the significant amount of disinformation spreading on different platforms, social media has been essential in documenting the fight.

In a speech directed at Russian people, Ukrainian President Volodymyr Zelensky called to 'TikTokers' as a group that may assist stop the war. Some TikTokers continued the conversation where the president had left off.

Despite the significant amount of disinformation spreading on different platforms, social media has been essential in documenting the fight

Zelensky is fully aware of the significance and power of social media. He started flooding platforms with straightforward, emotional, and incredibly powerful statements, as well as photos and videos of himself and his administration amid the ravaged streets of Kyiv, Ukraine's capital.

The smart use of social media and how Zelensky's team arranged connections with individuals across the country are responsible for most of Zelensky's achievements.



In one such video recorded outside the capital, Kyiv, accompanied by his closest advisers he said, "We're all here. Our armed forces have arrived. The citizens of society have arrived. We're all here to protect our country's independence, and we'll keep it that way."

It's almost as if the Ukrainian President has spent most of his life practicing for this precise moment, in a world where YouTube, Tik Tok, Twitter, Instagram, Facebook, and the rest strongly affect reality.

The smart use of social media and how Zelensky's team arranged connections with individuals across the country are responsible for most of Zelensky's achievements

It's just not only Donald Trump....

President Trump may have been the first to abandon traditional media in favor of newer technologies like Twitter, but it is Zelensky who took this concept to its rational end and vlogged his way to the premium and it worked. During what would become a controversial call discussion between the US and Ukrainian presidents on July 25, 2019, According to Zelensky, he had studied Trump's approach and tried to use it in his benefit.

"I need weapons, not a ride"

Zelensky became a hero. When he turned down an American offer to relocate him and his family to a safer area, he set the example of a genuine leader, stating, "I need weapons, not a ride."



Ukraine's phone companies were instructed to block network access to phones from Russia and Belarus, preventing invading troops from posting videos or sending messages online. Locals were urged to remove road signs to confuse Russian forces, according to Ukrainian officials on Facebook.

Google, Meta, and Apple have all taken efforts to tackle Russian disinformation, which has shown to be very effective in the past. At the same time, these platforms have exposed rising Russian resistance to Mr. Putin's war and allowed Ukrainian influencers to show the bravery of a country where no one appears to be surrendering, from remote villages to metropolises.

During the war, his social media following grew significantly. He has used his platforms to deliver constant updates and openly address international leaders. Zelensky has 14.1 million Instagram followers and 4.7 million Twitter followers as of now.

Google, Meta, and Apple have all taken efforts to tackle Russian disinformation, which has shown to be very effective in the past

It will be a massive struggle for the president to maintain his high-energy social media presence and high-level diplomatic ties in the face of such a large-scale military invasion and threats to his own life. However, for the time being, Ukrainians appear to remain united behind their president.





TECNO aspires to bring premium quality, chic designs, and outstanding user experience for the customers. Kelvinn Zeng – CEO, TECNO Mobile

The globally eminent smartphone brand, TECNO recently launched its new Spark 8C smartphone in Pakistan. The phone was officially unveiled in a Master Dealer reward event arranged by TECNO where many master dealers, media persons, and tech experts joined to celebrate. The participants were all praises of the brand and gave away hundreds of gifts worth \$200,000 (USD).

We got a chance to speak with Kelvin Zeng – CEO of TECNO Mobile Pakistan. Zeng has more than nine years of experience in the mobile industry of Africa and Latin America and has guided TECNO to become the No.1 brand in many countries.

Q: How do you see TECNO's journey in Pakistan? What are you currently aiming for?

KZ: We started our journey in Pakistan in 2016 with mid-range and budget-friendly devices. The immense response we received from the masses urged us to bring the flagship series to Pakistan. This was not all possible because of our struggle and hard work, but the efforts put in by our local partners. We believe in mutually growing so our success is in the success of our partners.

We hope that the customers and fans who have been supporting TECNO in Pakistan will grow with us to reach new heights in the future. We will spare no efforts to inspire more consumers by unlocking the best of contemporary smartphone technologies with elegance and innovation.

Currently, we are aiming for the higher budget segments with our Camon and Phantom series. You'll soon be able to get your hands on our Camon 19 and the latest Phantom phone in Pakistan.

The immense response we received from the masses here urged us to bring flagship series in Pakistan

Q: With this shift from mid-range to high-end phones, how would you define this philosophy for your smartphones?

KZ: With our unique technologies, TECNO aspires to bring premium quality, chic designs, and outstanding user experience to the customers. This is what we are striving for. We believe in going far beyond to provide a good communication device and pursuing the ultimate perfection which fully adapts to our consumer's needs.

To practically show this to the consumer, we have brought forward technologies like Borderless Screen, Gimbal Technology, 60x Hyper Zoom, and much more in our high-end Phantom and Camon phones. And most probably you'll be able to see one phone from each series with the yet innovative technology in 2022.

Q: TECNO recently changed its slogan, how does it portray your brand's Value and Spirit?

KZ: With our global philosophy and our slogan #StopAtNothing, we truly mean to not stop anywhere soon. This new slogan represents TECNO's recognition of human progress and people's pursuit of purpose, potential, and excellence. With this, our goal is to become the most admired tech brand in Pakistan as well as globally and continue making breakthroughs in product and experience innovations for our valuable customers.



You'll soon be able to get your hands on our Camon 19 and the latest Phantom phone in Pakistan

The pursuit of excellence is in our DNA, it's never stopping and always pushing the limits. Our motivation for excellence does not stem from one person or one event, it's from our users. It motivates us to spare no effort in bringing more innovative smart devices with the trendiest technologies that are elegantly and stylishly designed to global emerging market consumers.

Q: The recently launched CAMON 18 was a great hit, what do you have to say about its success?

KZ: As you know, the CAMON series is all about the camera. This series was designed to bring high performance and professional photography with an elegant design. The recently launched TECNO CAMON 18 was a breakthrough for the professional mobile photography experience.

TECNO introduced TAIIVOS Lab (short for TECNO AI Vision Optimization Solution Lab), focusing on innovative and cutting-edge technological breakthroughs for mobile imaging technology, along with 2 in-house R&D centers, and over 1,600 R&D staff members globally. This technology has been the core feature for all CAMON phones.

CAMON 18 brought forward much more including TAIIVOS Technology, Super Night Mode, and Selfie Mode with an all-new Ultra-Steady Gimbal Camera, a 60X Hybrid Zoom, and even more, enhanced AI features for achieving professional videography.

Q: Seeing the recent Master dealer event and the kind of interaction you had with the locals, how do you put in words your strategy for the future in Pakistan?

KZ: We believe in mutually growing along with our partners. Our marketing partners and master dealers have been with us since our beginning in the country. We held our Valuable Partners Meeting 2022 in Lahore to appreciate the best Master Dealers (MD) of the fourth quarter (Q4) 2021. We gave away a net worth of USD 200,000 gifts among the MDs including Motorbikes, Thailand Tours, Luxury Europe Tour, Loyal UK Tour, and Business Cars.

We are now one of the Top 50 Chinese Cross-border Brands, also China's TOP 500 Private Enterprises, and have become one of the Top Influential Chinese Overseas Brands in no time. In Pakistan, we recently received the Brand of the Year Award 2021 award for being the Fastest Growing Brand of the Year.

With Camon 18 exceeding 200% getting the No.1 position globally, we are aiming for the High-end and Flagship market by launching Camon 19 and Phantom in Pakistan soon. Moreover, we have established a TRANSSION Pakistan Manufacturing Centre, a joint venture between Pakistan and China to manufacture 49 percent of its mobile phones in Pakistan in the coming years. This is also a step to make more employment opportunities for the locals here.

we have established a TRANSSION Pakistan Manufacturing Centre, a joint venture between Pakistan and China to manufacture 49 percent of its mobile phones in Pakistan in the coming years

As for the future, we plan to improve the product experience, especially in design +OS; establishing the brand image of professional imaging, stylish design, and surprise experience. Also, with our shop coverage increased to 96% across Pakistan, we'll invest marketing budget in Camon and focus on share improvement and countless other BTL investments.

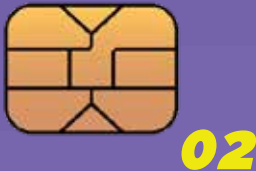


Tech Twist



Megabytes used to weigh hundreds of pounds

More specifically, 5 megabytes of data weighed one ton. In 1956, the first computer had something similar to a hard drive. At the time, it was a huge leap in storage capabilities, but the cabinet that contained the hard drive weighed over 2,200 pounds and could hold 5 MBs of data.



Credit card chips have been around for a LONG time

To many, credit card chips are a relatively new fad. However, chip technology has been around since 1986! It was first used in France, followed shortly after by Germany.



Alexa is always listening to your conversations

This probably isn't new to you. Siri has been doing it forever. Alexa stores your dialogue history to its cloud to help improve your Alexa experience. But, you can review and delete these recordings, either in bulk, or individually.



The first computer mouse wasn't made from plastic

Back in 1964, Doug Engelbart invented the first-ever computer mouse! Back then, it was made out of wood. It was rectangular and featured a little button on the top right. He called it a mouse because the cord coming out of the back reminded him of the tiny rodents.



The original Xbox had sound snippets of real space missions

The original Xbox contained edited sound bites from actual transmissions from the Apollo missions. If you left the Xbox on the home screen, eventually you'll hear whispers of conversation – actual chatter from the Apollo mission.



OS

Android 11

Processor

Snapdragon 680



Display

6.43" FHD+

Xiaomi Redmi Note 11



Camera

50MP

Battery

5000 mAh

Memory

4GB/128GB



Price

Rs. 34,999

A Stunning Phone with Great Specs

THE GOOD



- + Excellent 90Hz AMOLED display
- + A clean and tidy design
- + Exceptional Battery life

THE BAD



- Camera has no great shakes
- No 5G

FINAL VERDICT



A quietly appealing budget phone that gives you a 90Hz AMOLED display & exemplary battery life in a well-put-together design for this price tag



The Vivo V23 5G is the most gorgeous smartphone out there! With its Color Changing Fluorite AG Design, the material gradually changes its color upon exposure to ultraviolet light and after about 30 seconds under the sun, the Sunshine Gold variant goes from a light ice blue and pink, orange finish to a blue-green gradient look.

Pakistan's leading smartphone enthusiasts put the features and capabilities of V23 5G to test. Let's hear what the experts have to say!

Ali Abbas, the famous Youtuber who runs the Mastech channel, was completely stunned by the exquisite looks of the color-changing design during the unboxing and reviewed the Vivo V23 5G, highlighting the strong built quality and premium in-hand feel. "The design speaks for itself; Vivo is recognized for its gorgeous designs, and the Vivo V23 5G is no exception. The smartphone is loaded with top-notch capabilities, from a dual-camera setup on the front that allows you to capture high-resolution and wide portraits to a magnificent 3-camera setup in

the rear that includes an HD 64MP Night Camera, making it a fantastic pick for all photography fans".



PhoneWorld, Pakistan's popular YouTube channel, also did a detailed review of the V23 5G, describing the smartphone's design and build quality. "You cannot take your eyes off, the color-changing design on the back feels like magic. It feels incredible to hold this sleek and stylish phone in your hand. The device is beautify designed along with a strong built and is extremely light-weight." The incredible camera, FHD+ display, and fast processor were also praised by PhoneWorld, while the gorgeous design was one of the most eye-catching qualities of the V23 5G.

Pakistan's beloved Youtuber, ProPakistani, discussed Vivo's unique offering, which addresses the long-standing demand for a premium and attractive smartphone. "The smartphone's first appearance leaves you speechless. It's indeed, without a doubt, one of the most beautiful smartphones in the market. V23 5G comes with a variety of outstanding features and technologies, including an advanced camera, FHD+ display, and a powerful processor".

Talking in-depth about the latest V23 5G, ReviewsPK-Ameer Dagha said "The Vivo V Series is known for its excellent camera and lavish gorgeous design. And Vivo has offered a special feature to the users with the color-changing Fluorite AG Glass that appears magical. It's tough to look away from the smartphone's stunning appearance."





Blaze

120GB

Including 60GB
from late to late

1,999

200GB

Including 100GB
from late to late

2,499

300GB

Including 150GB
from late to late

2,999

ufone 4G

Ufone Offers Most Economical 4G Device Packages in Pakistan

The latest wireless internet devices are quite popular in Pakistan as they can provide you with an internet connection on the go helping you stay connected to the world 24/7. You can do so much with these pocket-sized smart devices. Plug it in your car to groove to the trending music, get your work done without having to worry about poor connection and so much more. Some of these devices connect up to ten users at any given time, so they are excellent for family use as well. In view of the convenience it offers, all telecom players in Pakistan now offer their own 4G Internet devices. With so many choices out there, you may wonder which device is worth getting your hands on. Of course, coverage and network speeds vary from area to area, so users may choose based on something that is constant; price and data volumes.

Below is a comparison of the basic data bundles offered on Internet devices of all four telecom players:

The biggest telecom player, Jazz offers a 60 GB basic package for Rs. 1850. It offers two other packages 100 GB and 150 GB cost at Rs. 2100 and Rs. 2600 respectively, with half the volume on all packages being usable at night only.

Zong offers 3 packages on its device. The basic 65 GB package costs Rs. 2100, followed by 160 GB and 200GB bundles for Rs2600 and Rs. 3300 respectively. Half of all the bundle volume is usable between 4 AM & 4 PM.

On the other hand, Telenor offers four internet packages. Two of them; 60 GB and 150 GB having volumes divided between day and night cost Rs. 1500 and Rs. 2500 respectively. Two additional packages without the day-night division are Rs. 3800 for 150 GB and Rs. 6000 for 275 GB respectively.

Lastly, Ufone offers three internet packages on its recently introduced Blaze 4G device. The basic 120 GB data package is available at Rs. 1999. Other packages include 200GB and 300 GB bundles for Rs. 2499 and Rs. 2999 respectively. Half of these data volumes are usable between 1 AM and 1 PM.

The comparison shows Ufone is really challenging industry trends here and is truly ahead of its game

Not only are the company's prices affordable, but it is offering twice the volume in every price bracket. It effectively means Ufone users enjoy nearly two packages a month as compared to the rest of telecom users.

If price and data volume are sufficient determining factors, Ufone easily stands out as an obvious choice. The reason Ufone's data bundles are comparatively more affordable is that the company has decided against shifting the recently imposed additional 5% Withholding Tax onto its users thereby absorbing the hard blow delivered to telecom users by the government.



BEST ANDROID LAUNCHERS TO CUSTOMIZE YOUR PHONE

by Usama Anjum

The launcher is a way we organize, manage and arrange our applications on an android system. A launcher includes a series of different home screens, app shortcuts, and different widgets or an application drawer. Every android device has some launchers but some of them are very tricky and complicated. If you haven't found the best one, then here are some Best Android Launchers, we think will satisfy your requirements.

Nova Launcher

Best Stock Android Launcher

Although Nova Launcher is now more than a six-year-old, it is playing a very important role in the android launchers market.

The biggest reason for its success is its simplicity because it has a very simple and easy layout with a mix of customization and convenience. It makes your android device looks like a Google pixel phone or similar to Samsung Galaxy S9. All the things work with ease in Nova.

Action Launcher

Action Launcher is another popular one among Android users. The reason for its success is its Quick and simple interface. It has Quicktheme, Quickdrawer, Quickpage, Quickbar. It is one of the most customizable Android launchers with fast speed.

The Action launcher also gives us some other options like robust gesture control, and widgets under the app shortcuts.

No matter what you want to do with your android phone, the action launcher makes it simple and easier.

Smart Launcher 5

The smart launcher is working for several years but they picked up hype after launching smart launcher 5. The main reason for it becoming famous among Best Android Launchers is its new home screen feature that features a new grid-less widget-placement system. They have also changed the look of a smart launch which looks very easy with it. It automatically divides your applications into several categories.

A few years back, the smart launcher was not considered a good android launcher but

within a small passage of time, it has achieved a little lightweight launcher and fast android launcher. The gestures of the smart launcher 5 are extraordinary, mainly the double-tap shortcuts that increase the functionality of every app on your home screen.

Blackberry Launcher

Pixel launcher is one of the best android launchers for those who want a blackberry experience on their android phones. It is a stable android launcher that is mostly useful for new blackberry android devices. The main reason for its success is government and enterprise users, as they are addicted to blackberry for ages. If you use a blackberry launcher, you will feel like using a pure blackberry DOD-certified phone. BlackBerry Launcher gives you the access to set the thing the way you want to and enjoy the launcher efficiency at its best. Keyboard shortcuts on BlackBerry Launcher are exclusive to BlackBerry's physical keyboard phones.

ADW launcher 2

ADW launcher 2 is one of the best Android launchers present on this list. This android launcher app is well-built, stable, quick, and easy to use. The Android launcher offers a wide range of customizable options. The User Interface practically feels similar to a stock Android. It is one of the great apps to customize the android experience.

The ADW launcher 2 carries a distinctive feature to change the interface color in accordance with your wallpaper dynamically. In addition to that, there are icon badges, app indexing on application drawers, launcher shortcuts, transition animations, and an array of other great features.

Zen UI

Zen UI is a perfect android launcher for those particular users who want to play with different themes and colors. It gives you a bundle of options in the theme category and app drawers also. It is for those users who like a neat interface. It also manages the application customization with a very easy approach and also gives access to the search bar, most used apps, and contacts with a just quick swipe down.

Pixel Launcher

Pixel launcher is one of the best android launchers for those who want an iOS experience. It usually comes default with a Google Pixel smartphone or you can download it also from the Play store. It has a translucent menu bar at the bottom side with some prominent features like long-press shortcut support, favorite bars, Google search access.

Evie Launcher: Minimal Android Launcher

Evie launcher is one of the lightweight launchers as it is very

very similar to android stock. It gives you a totally neat and clean look without any difficulty. Evie launcher provides a slide-out bar via which you can find your applications. Some of its other great features are live wallpaper, a custom app dock, more language support, and folder customization.

AIO Launcher

Where all other launchers offer you visual customization of your android home screen. AIO launcher works differently because it focuses more on what you did rather than what you want to do. It always keeps you updated about your notifications, your most used applications, recently received calls, messages, and email, as well as upcoming calendar events and more. It has a paid version also that includes some other great features like changing app icons, notification bar customization.

Apex Launcher

Apex launcher is similar to other android launchers. Its prominent features are customizable home screens in grid size, with up to nine screens. It is a little different from other Android Launchers because it allows transition animations, multiple app drawers, and additional gesture support such as theme varieties and icon change options.



SAMSUNG



OS

Android 12

Processor

Snapdragon 8 Gen 1



Display

6.8" Dynamic AMOLED 2X

Samsung Galaxy S22 Ultra



Camera

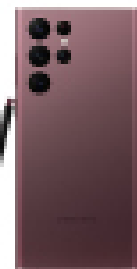
108MP

Battery

5000 mAh

Memory

12GB/256GB



Price

Rs. 244,999

Finally, A New Note

THE GOOD



- + Built-in S Pen is a versatile, unique offering
- + Excellent cameras and improved portrait mode
- + Gorgeous butter-smooth screen

THE BAD



- Stylus features can take a while to master
- Battery life could be better

FINAL VERDICT



The Samsung Galaxy S22 Ultra is a big, powerful, and attractive Android phone. It's super-versatile, ready for important work, hand-written notes, gaming, and casual big-screen web browsing – and the cameras are a clear highlight, with the Space Zoom capabilities taking you to infinity and beyond. And, yes, you'll pay substantially for all these features.

A Visual Guide to Profile Picture (PFP) NFTs

PFP NFTs are pieces of digital art that trade on blockchains like Ethereum and Solana.

They're often used as avatars on social media, but could play a larger role in the metaverse.

Here's how several of the most popular collections were generated.

SPECIES BREAKDOWN (RARITY)



Alien
(0.01%)



Zombie
(0.06%)



Human
(98.1%)



Ape
(0.04%)

One of the most expensive CryptoPunks ever sold was #3100, which went for 4,200 ETH (roughly \$7.6M) in March 2021.



#3100 is the only CryptoPunk with 7 attributes. A user offered \$3,000 (ETH roughly \$2,100) for it in August 2021, but withdrew a few weeks later.

CRYPTOPUNKS

All-time trading volume:

€ 749,724 ETH \$2.9 billion
As of Dec 15, 2021

Created in 2017 and originally distributed for free, CryptoPunks are one of the earliest examples of NFTs. The collection contains 10,000 algorithmically generated 24x24 pixel faces.

ATTRIBUTES

BACKGROUND COLOR



Not for sale



Active bidding



Available for sale by owner

FEATURES



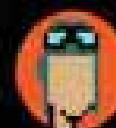
Peak Spike
(3.0%)



VR
(3.3%)



Buck Teeth
(0.8%)



Pilot Helmet
(0.5%)



Big Beard
(1.5%)



Vape
(2.7%)



Earring
(24.6%)



Top Hat
(1.2%)

Bored Ape Yacht Club (BAYC)

All-time trading volume:

€ 240,714 ETH \approx \$1 billion

As of Dec 15, 2021

BAYC is a collection of 10,000 NFTs that depict the face and torso of an ape. Each item was generated from over 170 traits and minted at an initial price of 0.08 ETH (roughly \$200).

ATTRIBUTES

FUR



Solid Gold
(0.05%)

CLOTHING



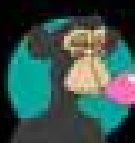
Toga
(2.0%)

HAT



King's crown
(0.02%)

MOUTH



Bored bubblegum
(1.2%)

EYES



Sunglasses
(3.6%)

EARRING



Cross
(3.6%)



Ape #2888 sold for over \$1.42 ETH (roughly \$215,000) in November 2021. It has a "Black Hole T-Shirt" which is only worn by 2% of Apes.



Cool Cats NFT

All-time trading volume:

€ 40,180 ETH \approx \$338 million

As of Dec 15, 2021

Cool Cats is a collection of 10,000 algorithmically generated NFTs. They initially cost 0.04 ETH (roughly \$200), and include various attributes from over 300,000 total options.

ATTRIBUTES

TIER BREAKDOWN (BACKGROUND COLOR)



Cool 1



Cool 2



Wild 1



Wild 2



Classy 1



Classy 2



Exotic 1



Exotic 2

The tier represents the number of attributes a cat has, with Cool 1 being the lowest.

Should Pakistan Ban Cryptocurrency?

by Usama Anjum



The crypto debate is making rounds in all corners of the world with entities having divergent views regarding its nature and future. In recent times, the world has witnessed a few landmark decisions related to cryptocurrencies like El Salvador adopting Bitcoin – the gold standard of cryptocurrency – as legal tender and the launch of the first Bitcoin-linked exchange-traded fund (ETF) in the United States. These events have boosted investors' confidence to new highs. Furthermore, bitcoin was able to surpass its previous high and achieve a value of nearly \$69,000. However, on the contrary, China, the world's second-largest economy, has banned cryptocurrency completely, generating a debate about whether other countries should follow the suit.

In the case of Pakistan, after the uncovering of an internet fraud involving around PKR 17.7 billion by the Federal Investigation Agency (FIA), this debate intensified. A tragic event happened that caused dismay among the Pakistani investors. According to market reports, smartphone applications to trade cryptocurrency abruptly vanished, causing turmoil among investors.

These apps were said to be related to Binance, one of the largest cryptocurrency exchanges in the world. The FIA has opened an investigation in the matter and called a Binance representative in for an investigation.

China, the world's second-largest economy, has banned cryptocurrency completely, generating a debate about whether other countries should follow the suit

The State Bank of Pakistan (SBP) responded by filing a report to the Sindh High Court (SHC) pushing for a blanket ban on bitcoin. As a result, the SHC has ordered that the report would be reviewed by the law and finance ministries before a final judgment is taken on whether or not to declare cryptocurrency use and trade illegal in Pakistan. The SHC also suggested that the law and finance ministries do their studies to determine whether a prospective ban on bitcoin is in the country's best interests. The ultimate goal is to put this matter to rest once and for all and go forward with a solid foundation to deal with any future issues.

An official report from the Federation of Pakistan Chambers of Commerce and Industry says that Pakistani investors invested \$20 billion into the digital asset, which is quite a lot. It is also evident from the fact that the SBP's foreign exchange reserves as of December 31, 2021, were about \$17.68 billion, which is less than the amount invested in cryptocurrency.

Despite its growing popularity in the digital industry, it is critical to understand whether cryptocurrency should be fully banned in an era when digitization is in full swing and consumers prefer to conduct numerous daily tasks using digital applications.

Pakistani investors invested \$20 billion into the digital asset whereas, the SBP's foreign exchange reserves as of December 31, 2021, were about \$17.68 billion

Furthermore, we are in the midst of a pandemic, as a result of which many individuals prefer online payment methods rather than the traditional give and take method. Based on current developments, it seems obvious that digital presence will continue to dominate the future, with firms and individuals transferring their work online,

eventually reaching a stage where virtual reality may be able to compete with a physical presence.

Traditional financial methods must evolve in this environment, as internet applications offer secure and efficient payment solutions. So, this is exactly what cryptocurrency offers; a decentralized method of making payments that is far safer and more efficient than the standard banking systems we're used to.

The greatest obstacle in establishing a regulatory framework is defining how to classify bitcoin

However, due to the decentralized nature of blockchain technology, governments all over the world have found it incredibly difficult to safeguard their populations from fraud, money laundering, and terrorism financing. This is why some governments, such as China, have made it illegal to use and trade digital currency. In India, officials are aiming to ban cryptocurrency and trading within the next few months. The greatest obstacle in establishing a regulatory framework is defining how to classify bitcoin and whether digital coins should be recognized as currency or assets. Compliance and market issues would be addressed if governments classified cryptocurrency as assets. However, on the other side, illegal funding, and financial instability will continue to pose substantial threats to countries.

Given Pakistan's continued inclusion on the Financial Action Task Force (FATF) grey list and the currency's rapid depreciation the SBP's recommendation to ban cryptocurrency appears to be a reasonable approach. The FATF has declared that Pakistan has "structural inadequacies" in implementing anti-money laundering and anti-terrorism financing measures. Both of these flaws are at risk of becoming even worse if cryptocurrency is widely embraced without any safety regulations.

Overall, according to a few analysts, the SBP's suggestion to ban cryptocurrencies appears to be the best course of action for the time being. This is because we still don't have any case studies to look at to figure out how to design

an effective plan that allows Pakistan to gain from the digital currency sector while avoiding the risks.

Because we are still in the early phases of cryptocurrency adoption, it is smart to take a wait-and-see strategy, as we cannot afford to be connected without doing something about the illicit activities associated with the cryptocurrencies. Furthermore, Pakistan has no plans to replace existing digital money with its official digital currency. Instead, officials have proposed to ban all types of cryptocurrency, with plans to restrict even cryptocurrency-related websites.

However, the opinion is mixed.

cryptocurrency offers; a decentralized method of making payments that is far safer and more efficient than the standard banking systems we're used to

Business leaders, blockchain professionals, and crypto influencers have responded with a suggestion for a digital currency regulatory framework. They argue that a broad ban would backfire and severely harm the economy, which is currently in shambles.

Ex-Karachi Chamber of Commerce and Industry President Majyd Aziz said the government's idea of banning things to deal with new risks is wrong. The authorities seldom figure out the outcome to analyze the risks and benefits of such an action. You cannot ban digital currencies before evaluating their impact on the huge investments people made in the digital economy. Banning crypto is not the answer because people would still invest in digital currency despite a ban. Instead, there is an imperative need for an International Cryptocurrency Regulatory Authority that could run crypto-related activities in the country.

Furthermore, **Waqar Zaka**, a prominent crypto influencer with over four million followers, recently tweeted, "There are minds who are claiming that 20 billion left Pakistan because of Crypto, incorrect. Why would anyone want to be on the FATF radar while the Hundi system is in place? By the way, Facebook and YouTube advertisements are bringing in more cash from a country where the majority of people are still unaware of cryptocurrency" he remarked.



Pakistan is one of the most active crypto marketplaces outside of Europe and the United States, with Chainalysis rating the country third on its Global Crypto Adoption Index for 2021. Because many citizens purchase bitcoin through P2P deals, which are generally unrecorded, Chainalysis believes Pakistan's true crypto holdings could be considerably larger than the official numbers.

we are still in the early phases of cryptocurrency adoption, it is smart to take a wait-and-see strategy

With that in mind, we believe Pakistan should take the above-mentioned wait-and-see approach. Moreover, we have some recommendations for the government in this regard as well.

Develop a regulatory framework:

The most important thing for the government right now is to develop a sound regulatory framework. This would be done by bringing all the stakeholders to the table and scrutinizing all the aspects of the cryptocurrency and its trading.

Pakistan is the third largest country on Global Crypto Adoption Index for 2021- Chainalysis

Establish a special wing in Finance Ministry to Oversee Crypto:

Furthermore, the federal government should also create a special wing in Finance ministry whose sole purpose should be to overlook all the matters regarding the cryptocurrency along with conducting detailed research on

Educate the public to tackle Scams & Crypto Fraud:

The authorities should arrange seminars and workshops all around the country to educate people regarding cryptocurrency, its trading, and other things related to it. An awareness campaign should also be run on radio, television, and social media as well. So that the general public can specify the authentic channels and avoid scams.

After the completion of these steps, the government should analyze the outcomes and then decide whether or not to ban cryptocurrency.

due to the decentralized nature of blockchain technology, governments all over the world have found it incredibly difficult to safeguard their populations from fraud, money laundering, and terrorism financing





INFINIX MOBILITY LTD
MARKETING & BRAND INITIATIVE
OF THE YEAR - CHINA



Infinix & Royal Observatory Greenwich
corporate partnership



Infinix proudly announced its victory of winning two awards issued by Asian Telecom Awards 2022. Infinix secured a top spot in both the Innovation of the Year & Marketing & Brand Initiative of the Year in China region. Held in Singapore by the leading business magazine Asian Business Review (ABR), the Asian Telecom Awards traces its heritage from Asian Mobile News started in 2003. The prestigious award is designed to recognize the remarkable achievements and initiatives of Asia's leading telecom companies.

On winning the two awards, Benjamin Jiang, Managing Director of Infinix Mobility, said, "The awards that Infinix received at the Asian Telecom Awards 2022 show the industry's recognition of Infinix's significant investment into technology innovation and a customer-centric marketing strategy which continues to drive Infinix's ongoing efforts. Infinix is committed to investing in innovation for the long term, with the mission of providing customers stylishly designed and cutting-edge technology smart devices at attainable price points to empower the lives of today's youth."

"Throughout the Covid-19 pandemic and white-hot competition in the smartphone industry, Infinix has been constantly boosting industry confidence through its efforts in innovation and consumer communication, showing the entire industry that it sure is a brand to watch," said Tim Charlton, Editor-in-Chief and Publisher of Asian Business Review.

The Awards

Marketing & Brand Initiative of the Year – China. Awarded for remarkable achievements in Branding. Infinix achieved a strategic corporate partnership with Royal Observatory Greenwich and held a webinar themed "Infinix Presents: See Beyond", which brought journalists, tech influencers and astronomers together to show Infinix & Royal Observatory Greenwich's shared salute to space exploration to inspire a new generation. At the event, Infinix unveiled its brand new ZERO X Pro flagship smartphone with a 108MP OIS main camera and 60X periscope moonshot lens, which sets the stage for a whole new era of mobile phone technology. This marketing strategy helped Infinix

convey its brand spirit of empowering today's youth with trendy technology that is out of reach for the everyday consumer in emerging markets.

Technology Innovation of the Year – China. Awarded for outstanding technological breakthroughs in smartphone development. Infinix developed the 160W fast charging technology by integrating Ultra Flash Charge (UFC) technology, Innovative Super Charge Pump, 60 security protection mechanisms and an 8C battery cell providing a full-charge time of only 10 minutes. The Infinix Concept Phone also utilizes electrochromic and electroluminescent technology to produce the world's first dual color-changing back cover feature. Additionally, it improves the display by the addition of the 88° limit radian to the improve user's viewing experience. The Infinix Concept Phone 2021 pushes the boundaries of innovative technologies and creative aesthetics to drive the future of smartphone designs forward.



HOW TO SAVE & SHARE AUDIO FROM INSTAGRAM REELS

Instagram now lets you save the audio in the reels for later use. You can not only save the audio of a particular reel but you can also save and share the entire audio page that consists of all the reels with the same audio. You can share this audio page with your friends just like any other Instagram post as a direct message. This update is currently available for both iOS and Android users.

STEP 1

Play the reel whose audio you want to save or share.

STEP 3

On the top right corner, you will see icons for sharing and saving, you can also tap on the "use audio" option at the bottom of the page.

STEP 5

You will see options "save" and "share".

STEP 2

Tap on the audio name displayed at the bottom left corner of the screen, you will be directed to the audio page.

STEP 4

To share or save the audio of just that particular reel, tap on the three dots placed at the bottom right corner of the reel.

To see the saved audio, go to the Instagram music library and the "saved" option will appear on the top along with "for you", "pop" and other categories. The saved reels and audio pages can be accessed directly from the "saved" option on the main menu.





DESI STARTUP

TAZAH

Agriculture is Pakistan's biggest sector contributing about 24% of its gross domestic product and employing half of its labor force, according to government statistics. But fragmented and complicated supply chains lead to inflated prices, food waste and low profits for farmers, all problems that Tazah wants to solve. The startup, which launched in Lahore, and it has raised a \$2 million pre-seed round led by Global Founders Capital and Zayn Capital. Other participants included Ratio Ventures, Walled City Co, izi Ventures, Sua Ventures, Globinvest, Afropreneur Syndicate, +92 Ventures, Sunu Capital, Musha Investments and angel investors like senior executives from ride-hailing platforms Careem and Swvl.

Tazah is a B2B fresh produce marketplace that connects farmers to businesses. It aims to solve the extremely complex agriculture value chain end-to-end through tech, resulting in dividends for both farmers and businesses.

There are currently about 300 small- to medium-sized sellers buying inventory through the platform and it moves multiple truckloads of produce per day. Instead of just serving as a marketplace to connect farmer and buyers, Tazah also screens produce for quality, removing rotten produce. Then it sorts them into categories for specific types of buyers.

Over-harvesting also contributes to food waste, and one of Tazah's goals is to build a data and analytics platform that will help farmers plan crops to make sure there is no oversupply in the markets they serve.

While Tazah is currently focused on its supply chain work, it plans to eventually add financing options for farmers after doing research, like going through several more procurement cycles to understand how much capital farmers need and how they are able to repay it.





Pakistan's Drone Revolution

by Fizza Atique

This is a high-tech era where ongoing developments are carried on throughout the globe. All the new products and technologies are initiated with floods of skepticism. We can easily relate to when we had Nokia's 3310 and used to hear that soon we will be getting button-less mobile devices that will do several other tasks besides making a phone call. Our brain wasn't able to absorb it but just in a span of a few years, we got such devices called smartphones which are now part of every to get household. The same was the case with unmanned aerial vehicles (UAV) which are commonly called drones. Just a few years back, it looked like fiction but now these drones have become so common that range from military drones to children's toys.

History and Adoption

Drone technology, since its inception, has mainly been used for military purposes. It has been used for the termination of targets or espionage mostly throughout the 20th century. Although the first RC drones were invented at the end of World War I but major advancements in drone technology took place during the 1940s. After that, it has been extensively used for military adventures by the USA, Israel, etc.

How Drone Technology Works?

A drone, also known as an Unmanned Aerial Vehicle or a UAV, is a flying robot operated with remote control.

However, it can also be programmed to fly autonomously with the help of software-controlled flight plans. The drone technology is equipped with an advanced GPS tracking system, which helps it navigate during an autonomous flight.

the first RC drones were invented at the end of World War I but major advancements in drone technology took place during the 1940s

When it comes to working, Drones carry multispectral small-format aerial cameras and produce images of both the visible environment and the infrared spectrum. It complements additional aerial photography and even high-resolution satellite imagery. These UAVs can fly at low altitudes and can execute repeating patterns.

They can produce fine-grained images of one-centimeter resolution or better, enabling the production of three-dimensional images.

When it comes to key features associated with drones, it should be mentioned here that they can fly by themselves and can crawl, grab and climb which means such drones can be used for other purposes besides military operations. Just a few months back, a drone with a defibrillator rescued the very first Swedish heart attack patient. It shows how these mini flying devices can be of great importance if employed tactfully. Like humans, these drones can talk to each other and can recognize faces and objects.

Drones carry multispectral small-format aerial cameras and produce images of both the visible environment and the infrared spectrum

Have Pakistanis Adopted this Trend well on time?

Pakistan has remained an emerging market for drones for the past 20-30 years. During these years, maximum buyers were from defense forces and the government but on the other hand market for civilians was stagnant due to the lack of policy regulations.

However, now when things are getting better. Drone use in Pakistan is also growing and is already being utilized in urban survey mapping, town planning, aerial crop surveys and spraying, aerial seeding, and inspection of wind farms. Moreover, crowd monitoring and policing, aerial photography, filmmaking, and light shows are also being done through service drones. In due course of time, the civil application of drones will also be seen in other areas such as wildlife counting and protection, environment monitoring, delivery of medical and food supplies, fire detection and monitoring, and search and rescue operations.

Pakistanis have adopted the drone trend wholeheartedly, Entertainment Industry swiftly adopted this trend, and we can see the drone use in filmmaking and also during shoots, marriage ceremonies, concerts, exhibitions, and other occasions. Food panda also started delivering food through drones in Karachi. Other than this the use of Drones in the real-estate sector of Pakistan has also flourished since most of the organizations show the work progress to their investors by capturing the ongoing development through drones. The use of the drone in Pakistan doesn't end here. A startup in Pakistan, Named Kalam4solutions has developed a Spray drone that carries out Anti Locust operations to save yields.

Pakistan's First Drone Policy

Prime Minister Imran Khan has approved the first-ever drone policy for Pakistan last year. The drone regulatory authority will supervise and implement several regulations related to drones including licensing permits, import, and, local manufacturing of drones. The authority will also be responsible for the development of the standards for drone production, operations, training, and, research. It would also guide for operating and flying drones to ensure public safety. The authority would also be empowered to undertake enforcement actions through warnings, fines, and imprisonment.

The drone policy is seen as the first step towards building the drone industry in a country where the import of drones is practically banned due to security concerns

The policy is seen as the first step towards building the drone industry in a country where the import of drones is practically banned due to security concerns. Experts say the regulation would help Pakistan tap into the commercial drone market,

which is expected to touch US\$43 billion by 2025 with an annual 20 percent growth rate.

The drone regulatory authority will supervise and implement several regulations related to drones including licensing permits, import, and, local manufacturing of drones

Challenges in Drone Adoption

The biggest hurdle to the drone ecosystem has been the absence of a dedicated drone policy to regulate drones. Now, when the policy is rolled out, the government has also permitted setting up a civil drone authority that will help promote and roll out this technology.

Local drone manufacturers suggest that regulating the use of drones is not enough, the federal government must encourage the private sector by offering direct support and tax incentives to develop the local industry. The high prices of the parts and their duty make it possible for interested businesses to invest in drone technology.

To develop and promote the drone industry, the Pakistan government should support the private companies focused on drone technology that has the potential to attract foreign investments and joint ventures. Moreover, every drone has different features, but the manufacturers are not able to test the complete potential before selling it since there are no laws in place. Due to this, the product may turn out faulty.

Another complicated challenge in regulating civil UAVs is the integration of these drones into the existing air traffic management system. The number of drones flying for different purposes is increasing day by day which will create some serious issues to air traffic service providers in the future as existing air traffic systems cater to traditional point-to-point flying manned systems only.

The development of rules and regulations for the security of critical infrastructure and sensitive installations is also a challenge. Drones can easily carry an explosive load to hit a target or camera to photograph sensitive infrastructure hence, becoming an ideal tool for terrorists. Therefore, drone operators' formulation of security-related rules must be a priority in the drone regulatory framework.

The number of drones flying for different purposes is increasing day by day which will create some serious issues to air traffic service providers in the future

Experts say the regulation would help Pakistan tap into the commercial drone market, which is expected to touch US\$43 billion by 2025 with an annual 20 percent growth rate

Drone Technology can change the way different industries are working. No doubt, its implementation in different industries can transform things. For instance, in the agriculture sector, drones can be used to manage livestock and survey crops. It can transform the delivery process as well.

Moreover, they can be used for disaster mitigation and relief. When it comes to logistics,

we can replace trucks and other inventory with heavy-duty drones. Real Estate companies can use them to show their project update and they can also be used for filmmaking and photography.

With the technology becoming cheaper and easily available, the proliferation of drones and expansion of their applications for civil use is inevitable. Before making a product available for commercial use, it needs to be regulated; otherwise, where it will be used, it can also be misused. Pakistan, and more specifically the new drone authority, CDRA, needs to come up with comprehensive policy and regulatory mechanisms to cope with all the challenges. In this regard, the government should engage all relevant ministries, institutions, and the commercial sector.





SPARK 8C
Iconic design



Kelvin Zeng, CEO of TECNO Mobile Pakistan shared his view on the latest launch

#ShowYourSpark; The all-new TECNO Spark 8C finally launched in Pakistan

TECNO has officially unveiled the new Spark 8C phone in Pakistan. The announcement was made on the official Facebook page of TECNO Mobile Pakistan and the phone is now available in markets nationwide.

Spark is TECNO's entry-level to mid-range series phone with high-tech features. The all-new Spark 8C comes as the latest addition to the most selling smartphone series of TECNO. With Expandable memory, Memory Fusion Technology, Iconic Design, and a stylish Camera, Spark 8C gained a huge fan base even before its launch.

The new phone comes in two variants 4+128GB (PKR 23,999) and 3+64GB (PKR 19,499). With an 8MP front camera, 13MP Rear AI dual camera, 6.56" HD+ Dot Notch Display, 90Hz refresh rate, and 5000mAh Battery, Spark 8C comes as a competitive device in the entry-level segment. Moreover, the phone will be available in four aesthetically stylish colors – Magnetic Black, Turquoise Cyan, Iris Purple, and Diamond Grey.

This is not all, the new Spark 8C brings its users new innovative features such as Expandable memory, Customized Beauty, Rear Camera decoration and Fingerprint sensor design, SOPLAY, other special audio features, and much more.

"We are happy to introduce this latest budget-friendly device for our Pakistani consumers. With every new Spark device, we try our best to bring an innovation that makes our device remarkably more valuable than our competitors. Hence in Spark 8C, features like Memory fusion, its iconic design, and the stylish colors are our effort to bring more quality in less budget."



TELECOM CAMPAIGNS

Telenor More sy Zayada

Telenor's latest TVC is more like a funny ad featuring Sahefa Jabbar Khatak. In the TVC, she could not buy a parrot of her choice and had to buy the other one. When she came home, the parrot starts talking fluently which surprises her. The main focus of the ad was to show how pleasing it is to get extra in low price. Overall, it was a funny ad.

Verdict: A Funny Ad with less information



Vivo V23e - V are Gorgeous



Vivo has just announced a new smartphone, V23e in Pakistan. The TVC shows how you can become your own hero with a phone with gorgeous specs. The tagline of TVC is "V Are Gorgeous" which sound quite catchy. The smartphone comes with a 50MP AF Portrait Selfie camera with a 7.36mm Ultra-Slim design, 64MP Rear Camera and 44W FlashCharge.

Verdict: Astonishing phone in Impressive TVC

UPower by Ufone

Ufone has just introduced UPower packages which give you control to get the package as per your need. The TVC features Bilal Abbas Khan. Its rap was very peppy. The ad highlights how you can avail different packages at different prices. Overall, the TVC was quite lively.

Verdict: An energetic TVC



Jazz 4G Super Soch ka Partner

Jazz 4G new ad comes with such a different and nice concept. Jazz highlights the weekly social plus offer. In this advert, a mother asks her son to help her in the wedding preparation. But the son amazes her mother by telling her that he has already done all the preparations because of the incentives Jazz has offered in this package.



Verdict: Keep it up



Raast

Raast new TVC shows how it will help you out in fulfilling your daily work. Raast is Pakistan's first instant payment system that will enable end-to-end digital payments among individuals, businesses and government entities instantaneously. The TVC highlights our real-life problems and how Raast can help to make payment instant and secure.

Verdict: Goof Effort

Ufone 4G Muft Morning

Ufone has now started providing 4G services to its users. To celebrate this, Ufone has started providing free internet to its users in the morning. The latest TVC of Ufone 4G Muft Morning features "Mikaal Zulfiqar" and shows how ufone users are excited to use free 4G service. Overall, it is a good ad with all the required information.



Verdict: A Good Ad



OS

Android 11

Processor

MediaTek Dimensity 900



Display

6.78" FHD+

Infinix Zero 5G



Camera

48MP

Battery

5000 mAh

Memory

8GB/128GB



Price

Rs. 49,999

Heavy Performance Smartphone with Stunning Design

THE GOOD



- + Great battery life and decently-quick
- + 33W charging
- + The Mediatek Dimensity 900 5G is an excellent all-around performer
- + Great quality 4K selfie videos

THE BAD



- Google Widevine L3 DRM means no HD and higher quality streaming
- XOS 10 is still based on Android 11

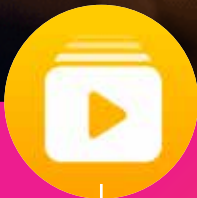
FINAL VERDICT



ZERO 5G is a blockbuster new product from Infinix for the 5G market. Although it is not a high-priced flagship in the traditional sense, it provides top-level performance and a 120Hz high refresh screen within its price range, which is enough to satisfy consumers who are looking for speed.

GAMES

& APPLICATIONS



IMGPLAY

A playground for GIFs, ImgPlay aims to bring life to whatever you capture with your iPhone – or to fine-tune the motion within those things that already move.



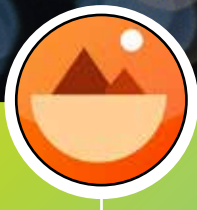
BOOK TRACK - LIBRARY MANAGER

It's about keeping tabs on your collection, which of your books you've actually got around to reading, and anything currently available on store shelves (virtual or otherwise) you fancy buying.



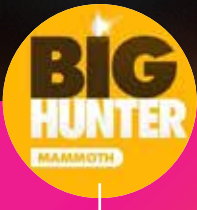
WHITE NOISE+

White Noise+ is an ambient noise machine, which aims to drown out distractions by filling your ears with something pleasant instead.



NOTHINGBUTWALLPAPERS

NothingButWallpapers is another wallpaper app that makes it into our list. This app has an adequate number of wallpapers to choose from that might fit your style. The app has all the wallpapers categorized neatly so that you can choose them based on your preference.



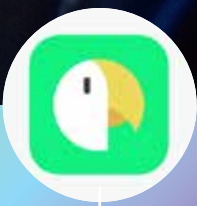
BIG HUNTER

Big Hunter is a dynamic physics game that hunts gigantic pre-meval animals with spear, axe and boomerang. Become the world's best hunter with a variety of weapons!



ACTUFLOW

Actuflow is an app that lets you focus on your work or studies instead of checking your smartphone for the umpteenth time. The device asks for a reason as to why you are trying to unlock the phone. It also logs into the statistics and records the total amount of time you have spent on the phone.



ELO AUDIO

This app is for people who like to listen to stuff instead of just reading. The app allows you to import your personal documents and PDF so that you can then arrange them on your playlist and listen to them at your own convenience.



PRIORITIES

Priorities comes with a very simple and straightforward UI that is easy to understand even for a first-time user. The app helps you organize your daily schedule, your events, and all your pending work and plans in a very systematic manner.



Samsung S22 Ultra

Display: 6.8 Inches

Memory: 256GB Built-in, 12GB RAM

Camera: 108MP + 10MP + 10MP + 12MP

Price: Rs. 244,999



Samsung S21 FE

Display: 6.4 Inches

Memory: 128GB Built-in, 8GB RAM

Camera: 12 MP + 12 MP + 8MP

Price: Rs. 138,499



Apple iPhone SE 2022

Display: 4.7 Inches

Memory: 64GB Built-in, 4GB RAM

Camera: 12MP

Price: Rs. 139,999 (Expected)



Redmi Note 11

Display: 6.43 Inches

Memory: 128GB Built-in, 4GB RAM

Camera: 8MP

Price: 34,999



Redmi Note 11 Pro

Display: 6.7 Inches

Memory: 128GB Built-in, 6GB RAM

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

Price: Rs 52,999



Oppo A95

Display: 6.43 Inches

Memory: 128GB Built-in, 8GB RAM

Camera: 48MP+ 2MP+ 2MP

Price: Rs 41,999



Vivo V23 5G

Display: 6.44 inches
Memory: 256GB Built-in, 12GB RAM
Camera: 64 MP + 8MP + 8MP
Price: Rs. 89,999



Vivo Y51s

Display: 6.58 inches
Memory: 128GB Built-in, 8GB RAM
Camera: 48MP + 8MP + 2MP
Price: Rs. 35,999



Infinix Zero 5G

Display: 6.78 Inches
Memory: 128GB Built-in, 8GB RAM
Camera: 48 MP + 13 MP + 2 MP
Price: Rs. 49,999



Realme 9i

Display: 6.6 Inches
Memory: 128GB Built-in, 6GB RAM
Camera: 50 MP + 2 MP + 2 MP
Price: Rs. 36,999



Tecno Camon 18 Premier

Display: 6.7 Inches
Memory: 256GB Built-in, 8GB RAM
Camera: 64 MP + 12 MP + 8 MP
Price: Rs. 54,999



Samsung A03 Core

Display: 6.5 Inches
Memory: 32GB Built-in, 2GB RAM
Camera: 8MP
Price: Rs. 18,499



A.S ELECTRONICS

G66 Star City Mall
Saddar Karachi

**All Varieties of
Mobile Phones &
Accessories
are Available.**

+92 213 2229128
+92 313 277 5947
as-electronics.pk
as-electronics.s66

A.S ELECTRONICS

RIVERSONG

Made for Everyone

MOTIVE SERIES

STYLISH SMART WATCH



Motive L

Motive 3

Motive 2C

Motive 3C

24 Hour Health Tracking | Multi-Sports Mode | Multiple Customized Watch Face
All-Day Activity Tracker | Weather Forecast | Long Battery Life | Sleep Monitor
Blood Pressure Monitor | Heart Rate Monitor | Blood Oxygen Monitor

vivo



Vare Gorgeously

V23 5G

50MP AF Portrait Selfie



Barkson

*Pictures shown are for reference only. The actual products may vary