INTERNET FOR ALL: A VISION AND A MISSION

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There has been an uproar regarding the digital economy since the inception of the internet in one way or another. All economic activity through the use of the digital medium is considered as the digital economy. It entails all infrastructure needed for the operations of digital processes, all digital transactions, and all digital content (Barefoot et al., 2018). The infrastructure required for the digital economy at the foremost level is the Internet and all the hardware and software equipment including computers, mobiles, gadgets, servers, telecommunication equipment, structures, and Internet of things that require the Internet to work and process digital activities. Digital businesses include all e-commerce systems, click-only setups, all the paid digital content, digital media, etc. Conclusively, the digital economy is huge, it plays an important role in the overall GDP of any country. The Secretary-General of the Digital Cooperation Organisation (DCO) mentioned that by the year 2030, 30% of the global GDP will be generated by the digital economy (Devi, 2023). As mentioned by Amin (2024), the digital economy of Pakistan by the year 2025 can contribute 13% to the total GDP of Pakistan which is a big deal. The efforts to strengthen Pakistan's digital space are encouraged by the country's superior powers as well. There have been multiple initiatives by different governments of Pakistan to digitize the country sustainably specifically after COVID-19.

This was bound to happen as the global pandemic changed the course of almost everything. Human interaction was limited and the way people managed their lives had to be shifted to a new way, which was home-bound. The cities were locked down, streets became deserted, planes were grounded around the world, educational institutions decided to close, and businesses took a nosedive; in short the physical space, to do anything, was squeezed to an unprecedented level. However, there was one thing that came to the rescue of humankind as a last resort, and that was technology. Within the ambit of technology, the internet lies at the core, which helps people across the world to go on with most of their daily routines in digital space. People in developing countries and third-world countries at the time of COVID-19 understood the better usage of the internet, unlike developed countries who were already using the Internet in the right direction. Thus, the internet has provided ease of communication and has established its significance more than ever (Favale et al., 2020).

Figure 1: Pakistan Position in World Internet
Index 2022. Source: Economic Impact

Around the time of COVID-19, the Pakistan Institute of Development Economics realized the importance and need of the internet. The realization came with the idea of spreading the word and advocating that the Internet is not a luxury to have in a country like Pakistan, but it is a necessity and there should be Internet for All in Pakistan. Pakistan was standing at 90th position in 2021 and year 2022 according to the Economic Impact report, Pakistan

reached 84th position, yet it stayed last in Asia which is alarming.

With the vision of internet provision for everyone around the country, PIDE has struggled a lot to dialogue with all key stakeholders to do proper internet advocacy and publish about all aspects of the internet and its provision however, the lived realities are still similar as they were few years ago, the advocacy of internet provision with its needed components still look relatively fresh and new. The piece focuses on the idea of the current issues of the internet in Pakistan and how everything has been explained and advocated multiple times by PIDE and the scenarios are similar or worse since 2020 and the paper aims to provide a way forward. Since everyone around the country knows about the use and need of the internet, this piece deals with the supply-side and provision issues.

▶ NEED FOR INTERNET

The internet has come with the opportunities to expand, and start businesses, reach out to people, and spread the message of peace or any other social plea. In today's world, through the internet, social movements have taken place around the world, social issues are highlighted, and online education, e-fitness, and virtual meetups are becoming normal. Likewise, this is now also a fact that technology has taken over quite evidently, and businesses are trying to increase their online presence to stay in the competition. Similarly, Pakistan is promoting digitization and is focusing on the availability of all the official data and needed information on the web for the ease of the people of the land. All the policies focus on the use of the internet and the related information to be present on the web for the success of the policies and related sectors. While considering the idea of providing of internet for all, it is important to have an idea of internet access to people. The following figure shows the number of current users of telephone and internet as shared by the Pakistan Telecommuni-

Figure 2: Overview of Telecom
Indicators. Source: PTA
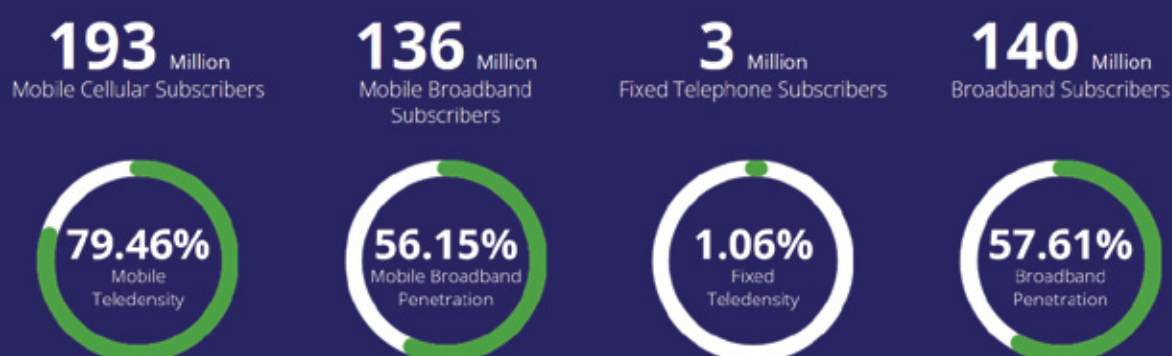
Irfan Wahab, CEO of Telenor Pakistan mentioned in his article for PIDE that "inclusion of the digitally excluded" is the only way to strengthen the digital business and community of Pakistan and the telecom sector is the bridge and must play its role through internet provision (Khan, 2021). It has been observed that most of the urban youth of Pakistan have now accepted technology and the digital market as part of their everyday life and the internet has become a necessity for them, however, the case is slightly different in the rural areas. This has been adding to the digital divide. The digital divide causes information and knowledge hindrances for the ones without the availability of the internet (Lythreatis et al., 2022). The digital divide can hinder the socioeconomic growth of countries as well (Hussein, 2021). This is grounded in the idea of the struggle for internet penetration across the country because of two reasons. As explained by Hina (2021), one reason is the unavailability of updated mobile phones and gadgets to most of the population as most of the internet subscribers are living with 2G technology and the other reason is the struggle of Pakistani telecommunication companies to provide high-speed internet i.e. 4G in case of Pakistan whereas the world has moved to 5G technology. The traditional or the other way for the provision of internet is broadband but, in most cases, the speed is compromised due to the infrastructure issues of the broadband provision. If such problems persist, it will take many years for Pakistan to reach its digital potential and it will remain a vision to digitalize the economy in the best way possible to earn revenue from it.

It is pertinent to realize that the digital divide isn't only reflected through the availability and unavailability of the internet but also in the speed of the internet (Gallardo and Whitacre, 2024; Haque, 2021). One of the major issues Pakistan faces is regarding the infrastructure of internet provision of both broadband and cellular data. The details regarding what infrastructure comprises of internet provision are well explained in a PIDE knowledge brief by Anwar and Qayyum (2021), hence this article touches on the crucial infrastructure points. The broadband and general internet provision requires the quality of fibre optics that helps to increase the speed of the internet. While visioning digital Pakistan, the Ministry of Information and Communication, Pakistan mentioned that Pakistan has an optical Fiber cable that covers 164000 km of the area but only 11% of the towers are connected to fibre optics and 1.1M subscribers have access to fast fibre optics internet which raises high concerns in the year 2024. Similarly, for high-speed cellular internet, along with optical fibre, a range of spectrum is needed. PTA announced another round of spectrum auctions in September 2024, few times the auctions proved to be useless activity due to the high price of spectrum for better internet provision. When telecommunication companies buy high price spectrum, they have less to manage other business activities and that also impacts the affordability of the internet provision (Anwar and Qayyum, 2021). A similar point is made by many CEOs of telecommunication companies in a webinar with PIDE that the government is focusing on gaining high revenue without caring for long-term benefits and profits which becomes a hurdle for spectrum buying and moving towards better technologies (TelecomSectorCEOs, 2021). The CEOs further mentioned that the government also imposes a wide variety of taxation which then makes it difficult for the provider to deliver their services at an affordable rate.

Pakistan is currently using 4G LTE as the highest spectrum range of the internet whereas the world is moving ahead of 5G. Though 5G is a crucial need of time, in Pakistan, it is firstly important to provide internet across the country and then move towards another technology considering the enlarging digital divide. According to an estimate, by the researchers at

at PIDE in the year 2021 the Telecom sector needs huge investments, with average infrastructure price taken from the industry, the researchers estimated the need of around 1000M to provide internet in 4 districts of Pakistan which is a heavy amount and one tower was covering a radius of 6km. According to a one-on-one discussion with the PTA chairperson in 2021, researchers at PIDE realized that 5G requires a stronger spectrum range and covers fewer areas. Similarly, in 2024, the talks with industry personnel mentioned that the 5G internet is expensive and as it covers a lesser area, they require more equipment for the upgradation of all the towers in the country which is why it wasn't optimal for them to go for 5G. the same was indicated by Hina (2021) that an entire ecosystem change is required to move towards 5G which is suboptimal, therefore the provision of 4G across the country should be the foremost priority in the mission to provide internet to all. Accepting the fact that currently, Pakistan has infrastructural issues that require long-term planning and time to be resolved, the government and telecom sectors need to work together to look for solutions and work on their suggestion to improve the accessibility of the internet.

▶ CURRENT INTERNET POSITION

Currently, most of the businesses in Pakistan have moved digitally, many businesses are using omnichannel i.e. having digital and physical touchpoints for the customers. Few businesses are run based on shared economy principles which is a merger of innovation and digitalization (Mohsin and Butt, 2022), examples of such businesses in Pakistan include InDriver, Foodpanda, AirBnB, etc. Certain businesses run solely through the internet i.e. apps that connect users and service providers, freelancing, social media influencing and digital programs, etc. Since, the internet is helping the cottage industry to flourish, helping people reach and connect with loved ones through social media, despite the digital divide and internet accessibility issues, people in Pakistan are trying to make the best use of the internet. But there is another problem that is beyond the digital divide, that comes with the political agendas and political instability where the government chooses to stop the supply of internet provision which then causes huge losses for the businesses that depend on the internet. Since the internet penetration through mobile services is more than broadband in Pakistan, Haque and Najib (2023) estimated that due to one day of internet closure by mobile service providers, businesses lost around 1.3 Billion rupees. The financial sector lost around 45% of the daily average, the cab services lost 97% of the business, food services lost 75% of the business and freelancers lost their work denting 390M of economic activity (Haque and Najib, 2023). Since 2023, the practice of closing the internet over political issues, protests, and large gatherings has become a norm which is impacting businesses and the public hugely. Further, the government sometimes bans certain internet sites and apps that may be important for the public to connect or to work, it impacts the mental well-being of the public and by using VPN, the government is allowed to shift the revenues to other places. As these activities are done by the government, there is no way to appeal about it as well. The government needs to realize that the vision of digital Pakistan can't be achieved if there are hindrances in the provision of the Internet.

Way Forward

- The government should not see providing spectrum as a revenue generation opportunity, instead reducing the spectrum prices to make it more affordable and easier for the telecom companies to buy spectrum. This will enable telecom companies to provide internet coverage to more areas at a relatively lower cost.

- The government needs to support the buying of optical fibres to enhance the broadband and mobile internet experience for users

- The government should encourage tower-sharing options and the provision of optical fiber for towers, it will help them reduce costs and provide better revenue opportunities for all. This will also lessen the competition and increase the opportunities for the companies and the people.

- Telecommunication companies tend to discontinue services where they're bearing losses, government should provide subsidies to provide internet to everyone.

- Government needs to lower the taxes on the provision of internet

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