

Essay: Is Pakistan Ready for Digital Revolution?

OUTLINE:-

1) Introduction

Thesis Statement:-

The rise of technological innovations like AI has seen people debating whether Pakistan is ready to embrace and incorporate digital technologies. While some cosmetic efforts have been done to boost the digital infrastructure of Pakistan, a closer look shows that Pakistan is not ready for digital revolution. This is because Pakistan lacks holistic digital awareness, infrastructure and rudimentary digital framework that is necessary for this revolution.

2) The world is advancing rapidly in the digital realm and Pakistan needs to evaluate her performance in this regard.

3) Pakistan is not ready to embrace digital revolution (Thesis)

a) Lack of necessary education and skills in general public

b) Lackadaisical performance by government

Case in point: Evaluation of "Digital Pakistan" program

- c) Poor digital infrastructure
- d) Poor digital infrastructure at institutional level.
- e) Deplorable condition of startup culture in Pakistan.

4) Recent developments in this area are sufficient to initiate digital revolution (Anti-Thesis)

- a) Rise of digital platforms during Covid-19 lockdown era has contributed to public awareness/education.
- b) Government initiatives to promote E-governance.
- c) Available digital infrastructure is sufficient to kickstart this revolution.

Case in point: Comparison with digital infrastructure of Bangladesh

- d) Institutional digital architecture has greatly improved in post-covid era
- e) Exemplary efforts made to foster startup culture in the last 5 years.

5) Despite these efforts, Pakistan is stuck in a nascent stage in terms of digital readiness (Synthesis)

- a) Digital awareness in Pakistan still ranks below the regional average.
- b) Pakistan's E-governance initiative is in an initial phase.

c) Digital revolution demands an up-to-date and extensive digital infrastructure

d) Digital facilities of government institutions are not available to every citizen.

e) Unannounced internet closures and banking delays are the greatest hurdles for tech-based startups

6) Conclusion

"The digital revolution is marching on and entering every aspect of life," said the Polish businessman, Ernst Raue while highlighting the transformative potential of digital world. This might be true for the digitally advanced world however, one wonders how much of it is true in the case of Pakistan. The rapid rise of technological innovations like AI has seen people debating whether Pakistan is ready to embrace and incorporate digital technologies in every walk of life. While some cosmetic efforts have been made to boost the digital infrastructure of Pakistan, a closer look shows that Pakistan is not ready for digital revolution. This is because Pakistan lacks holistic digital awareness, crucial infrastructure and rudimentary digital framework that is necessary for this revolution. To bring about this revolution, every citizen has to be involved. Unfortunately, Pakistani citizens lack basic skills and awareness in this regard. On the other hand, government efforts have also been insufficient. Also, the general infrastructure and institutional-level

digital architecture is not sufficient to benefit general public and business community in Pakistan. Contrary to this view, idealists opine that the recent advancements in the digital realm are sufficient to claim that Pakistan is a digitally revolutionized state - They highlight the progress made in the Covid-19 era and the initiatives taken in the post-Covid period to improve digital infrastructure as sufficient for digital revolution. According to them, the sporadic and unsustainable efforts on part of the government are enough to transform the digital outlook of Pakistan. The reality, however, is far from it.

Pakistan is currently facing an economically volatile situation, its young labour force is looking for economic stability along with chances to boost their resilience and participation. Against this backdrop, digital empowerment offers numerous opportunities. World Bank estimates that the total potential of digital technologies in Pakistan is \$60 billion that can

realised till year 2030. Pakistan's digital space is not just relevant to IT, telecom or economic sector, it includes digital transformation of the entire Pakistani society so that human development can be achieved on equitable basis. Digital revolution is a multidimensional process that fosters economic, physical and mental wellbeing of the people while rendering sustainability and adaptability. Digitally matured state rank high in all of these parameters. Therefore, it is best if we evaluate Pakistan's digital readiness using these as standards.

A look at the level of digital readiness tells us that the general public lacks education and skills required to transform the digital environment. A nation-wide digital transformation requires the involvement of people belonging to different strata of the society. Unfortunately, we find that the education system is failing to address this concern. It lacks modern technological awareness. Moreover, not everyone own a digital device (mobile phone or laptop). The UN's E-government survey, 2022 reveals that only half of the populations own a smartphone. Indicators like these

highlight that the very basics of Pakistan's digital system are underdeveloped.

As the promotion and patronage of digital revolution by the government is concerned, the performance has been less than satisfactory. The government was very enthusiastic while announcing the

'Digital Pakistan' policy of 2018. This policy defined holistic approach to spur sectorial digitalization that would be inclusive and knowledge-based. However, after almost six years, no substantial progress has been made to achieve complete digitalization of even a single sector of Pakistan.

As mentioned in the policy, technology parks were started but lack of political support and administrative hurdles have retarded their full development.

Additionally, the digital infrastructure in Pakistan remains poorly developed. Digital infrastructure is the basic requirement for growing any level of digital network. This includes system of optic fibers, mobile towers density etc. In case of Pakistan, the infrastructure remains chronically underdeveloped with limited access to digital services and slow connectivity. Despite being a mobile

first economy, only half of the population owns smartphones. To cap it all, the divide between the digital infrastructure of rural and urban areas is vast. All of these factors point to the deplorable condition of digital infrastructure in Pakistan.

Poor digital architecture at institutional level is yet another hurdle in achieving digitalisation. Institutional digitisation can help deliver efficient service delivery to the citizen while also improving human development index (HDI).

Unfortunately, only a few institutions have achieved complete digitalisation of their services and those that have done so struggle with networking issues and outdated platforms. NADRA has recently launched its digital service IRIS. However, the system is often faced with issues in functioning smoothly. Having an up-to-date institutional architecture is a prerequisite without which digitalisation is impossible to achieve.

Digital Startup culture is facing a hard time in Pakistan. The government (present and previous one) has pledged to facilitate small-scale sellers and entrepreneurs to boost digital economy.

via ease of doing business initiatives. However, in this digital era, fragmented institutional architecture and lack of policy continuity have retarded the growth of startup culture. It is the result of such policies that services like Airtel and Uber have shutdown their services.

According to Tabadlab's 2023 report, "Digital Now: A guide to Pakistan's digital transformation", ~~only 38%~~ of Pakistani women have 38% less chance to own a smartphone in Pakistan. This reflects badly on the opportunities available for women to start a business of their own.

Contrary to this stance is the opinion of delusional optimists who believe that the current condition of digital landscape in Pakistan is sufficient to foster digital revolution. They are of the view that levels of digital awareness and education in public has drastically improved in the covid era. During this era of social distancing people were connected via digital platforms. The Digital Pakistan Policy (2016) highlights that the subscribers of internet have increased from 3.7 million to

in 2013 to 44.3 mn in 2017 - According to Pakistan Telecommunication Authority's statistics of 2023, the number of broadband subscribers now stands at 54.18% that translates to 129 million people. There has also been an increase in the understanding of social media apps usage and online financial services. These factors point to the increase in digital literacy in Pakistani public.

A look at government initiatives show that serious efforts have been made to promote E-governance. This has been done to promote quick, effective delivery of services to the remotest parts of the country. As highlighted under 'Digital Pakistan' policy, promotion of E-governance is an essential component to promote digitalization across the country. In this regard, several services have been launched. E-Kachehri is one such effort to register and solve public grievances through online mode (via Zoom video calls). Moreover, digital visa services have been launched across all aviation centers in the country. Efforts like these show government's committed effort to further E-governance in Pakistan.

Some analysts also claim that the current digital infrastructure is sufficient to carry digital revolution forward. They claim that Pakistani situation is similar or even better compared to other regional players. Using similar infrastructure, many regional countries have digitalized their economies and boosted the human development index of their citizens. The case of Bangladesh is exemplary in this regard. It launched its "Digital Bangladesh" program in 2009 when it had an internet penetration of just 3.1%. Strict adherence to digital policy drastically transformed Bangladesh's digital environment. As of 2023, ninety percent of its population has access to internet. Compared to the 2009 condition of Bangladesh, Pakistan ranks much higher in terms of internet penetration. In terms of infrastructure, Pakistan is sufficiently equipped for digital revolution.

In the backdrop of Covid-19 pandemic, government has realized the potentials of digital services and so it has greatly improved the digital architecture of commerce and services sector. Several transactional services have been launched

through public and private partnership which have facilitated in credit transferring and bill payment. Services like JazzCash and Easypasa are monumental in this regard. Educational institutions have vastly improved their online teaching platforms - Creation of E-courts and Citizen portal are also laudable initiatives. All of the above mentioned programs indicate government's committed effort to implement 'Digital Pakistan' policy in its true essence.

Last five years have seen exemplary efforts by the government to foster startup culture in Pakistan. Small-scale sellers and business owners have been facilitated via digital financial platforms. Pakistani freelancers have proved their capabilities by rising among top ten freelance service providers (World Bank, 2022). Pakistan has been ranked 76th by Global Startup Ecosystem Index, Report 2023. This points to 2 digit increase in Pakistan's rank compared to the last year. Efforts like these prove that Pakistan moving in the right direction to foster digital economy and to spur socio-economic growth.

Eyeing the situation under the lens of optimism may make the situation look rosy but a closer look still reveals that Pakistan is lacking ~~on~~ ⁱⁿ several areas. The efforts made so far to boost digital environment is sparse, spodic and inadequate. A look at digital awareness index reveals shocking statistics. Out of the 50% percent population that own smartphones, only 24% is able to browse internet (UN, E-government survey, 2022). If this is the level of digital readiness in public, how can one suppose that they will be able to utilize digital services or be able to contribute effectively to digital economy.

Recent efforts made under Digital Pakistan policy point to the fact that Pakistan is relatively new to this game. - The initiatives are part of a nascent scheme to build a digital outlook. The initiative recently taken by Pakistani government like Citizen portal, E-visa program, online educational programs and mobile agricultural apps are

all part of Indian and Bangladesh policies when they first embarked on digital transformational journey 10 to 15 years ago. Thus, it can be said that these programs are in a nascent stage and are aimed at building a framework for digital governance in Pakistan.

In addition to that, an inclusive and equitable digital revolution demands up-to-date and extensive digital infrastructure - Any country that needs to transform its digital environment must do so by including every single citizen in the transformational journey. This transformation cannot be achieved merely by including the middle or upper-class urban population - This points to yet another flaw in the system, i.e. outdated and limited digital infrastructure. The networking of mobile towers has been improved in the rural areas of Punjab, however, the is still deplorable in rest of the provinces and Azad Kashmir. 4G services have been launched in major cities while the rest of the country is still working with (rather struggling with)

3G and 2G.

Digital services launched by the government have little utility if they are not available equally to every citizen. There are several hurdles in this regard - First is the rural-urban divide in the availability of digital infrastructure. Second is the inequity in digital awareness and third (and the most important) is the gendered access to technology. In Pakistan 57% men while only 38% women are digitally literate. This includes abilities from using social media apps to dialing numbers and adding/saving contacts on a cellphone (Macropakistani, Digital Literacy Index, Financial Inclusion Survey, 2023)

Concerning the startup environment in Pakistan, it cannot be claimed that the environment is favorable just by looking at a few initiatives taken by government to foster business environment. The initiatives are merely cosmetic and clearly a desperate attempt to woo investors. The ground reality presents a grim picture. There are unannounced internet closures which are lethal to tech-based startups.

The direct economic cost of internet closure is 1.3 billion PKR per day. Indirect losses are not even accounted (Pakistan Institute of Development Economics, 2023). Then, there is absence of global banking and financial services, all of which cause banking delays thus restricting the economic opportunities to new lows every year. Services like PayPal are hesitating to work with Pakistan and the ones that are working are limiting their services already.

In a rapidly advancing world, rapidly advancing ones digital environment seem like an only option to keep pace with the world. Also, in a rapidly growing population and rising economic woes, digital advancement seems like a great solution. The government has been working in this direction but an overview of critical factors reveals that their efforts are falling short of the requirement. Critical analysis of the issue reveals lackluster policies and lack of understanding of true potentials of digital economy. There is a lack of holistic, and coherent roadmap which means that all of the

initiatives taken so far are cosmetic treatment to a chronic problem - Pakistan needs to revamp its infrastructural, institutional and policy frameworks in order to realize the dream of digital revolution and also to keep pace with the rest of the world.