

Topic: Is Pakistan Ready for Digital Revolution

Outline

1- Introduction

As the world is jumping onto the chip of digital revolution, Pakistan is struggling to cross the gangway. It lacks a coherent strategy and strong foundations to ~~help~~ prepare it for digital revolution. The country currently struggles in creating coherent policies, effective laws, ~~strong~~ training institutes, strong infrastructure and E-governance facilities.

2- How Pakistan can be stepping to and fro from the line of digital progress ?

3- How Pakistan lacks the foundations for Digital Revolution (Thesis)

- Lack of roadmap of policies
- Lack of effective laws
- Lack of skilled personnel
- No proper infrastructure
- Far behind in E-governance

4- Pakistan has created pillars towards digital revolution (Antithesis)

- Digital Pakistan 2019
- Cyber laws 2021
- Initiatives for training
- Improvement in digital payments and internet's penetration
- Success story of NADRA

5- Without map and foundations, pillars are weak (Synthesis)

- Incoherence in policy design and implementation
- Laws are few and unimplemented
- Overall literacy rate still remains alarming
- A long way to go before readiness in infrastructure
- Success stories of Bangladesh ~~and India~~.

6- Conclusion

In order to join the world on a journey to improved lifestyle and innovation, Pakistan must put effort in creating a comprehensive roadmap to develop laws, infrastructure, personnel, policies and systems.

As the world is jumping on to the ship of digital revolution, Pakistan is struggling to cross the gangway. It lacks coherent strategy and strong foundations to push it into the vessel called 'digital revolution' or 'third revolution'. Lack of coherent policies, effective laws, training institutes, strong infrastructure and E-governance facilities have kept Pakistan at bay from the benefits of digital world. There have been some efforts to change the status quo, such as, Digital Pakistan 2019 initiative, creation of Cyber laws, initiatives for IT training, progress in digital infrastructure development and digitization of NADRA. However, these initiatives are not enough to bring Pakistan at a level ready to embrace digital revolution. According to Alina Khan, the current situation in Pakistan can be called 'digital emergency' (The World is Digital when will Pakistan catchup, June '23).

Digital Revolution can be defined as a shift from mechanical and analogous devices to digital devices available today. These digital devices require an entire infrastructure and set of policies before citizens can effectively utilise them. They also require personnel to take care of them create them and maintain them. Digital Revolution can bring a socio-economic change in Pakistan. According to studies by Zabadlab, the potential for Pakistan is around \$6 billion. Hence, it is imperative for Pakistan to take 'digital' as ^{the most important} ~~an~~ ~~imperative~~ issue.

Before any foundations can be dug, a map is required. Pakistan lacks a proper roadmap to digital revolution. The ~~lack of~~ ^{missing} alignment and consistency in initiatives show the lack of direction. For example, Pakistan's ~~lack of~~ ^{no} ~~any~~ central accountability in its digital initiatives and short-term agendas taking over long term ~~comp~~ IT goals. ~~Therefore, Pakistan lacks proper planning before implementation.~~ ^{the lack of} ~~been witness to no proper planning before implementation.~~ The lack of planning then also becomes evident in passing and implementation of digital laws.

Laws become the framework for any revolution. In Pakistan, the laws are too less and not implemented well. A major space for laws creation and implementation is in unimplemented protection of intellectual property. "Most startups do not register their tech-products in Pakistan because intellectual property cannot be protected" (Dr. Umar Saif, How to Build a Billion Dollar Startup, the Pakistan experience). Also, cyber crime still remains a major problem in Pakistan. 2 years ago, NADRA was rumoured to have lost private information of 150,000 citizens due to cyber attacks and till date ^{no litigation}

On the matter is seen. Since, the government does not take IT as the most important issues in Pakistan, a lot of individuals are not encouraged to learn about digital knowledge.

Pakistan does not have the professionals required to create solid digital systems. The overall illiteracy and lack of awareness about digital knowledge has created an acute dearth of good IT professionals. Pakistan ranks the third worst country on the metric of digital education. Moreover, a lot of Pakistani professionals become part of 'brain-drain' happening due to failing economy. ^{In 2023,} 450,110 Pakistanis left their homeland in pursuit of work opportunities abroad. (Sana Jamal, Gulf News, Aug'23). Therefore, there are very few people to push Pakistan towards a digital future. Since, there are few people to ^{develop} ~~guide~~ ^{lead} ~~in the right~~ ^{tangible} digital systems ~~direction~~, Pakistan also faces issues of digital infrastructure.

According to a Jabadlab report, Digital Infrastructure is one of the ~~core~~ foundational enablers in digital economy. "Pakistan remains among world's worst performers in terms of internet access and digital governance. 15% of the population lacked internet access while others suffer from lack of consistency in services, negatively impacting meaningful access" (Dawn, Pak remains among world's worst performers in terms of internet access, digital governance, May'23). Hence, proving that the base for digital revolution in Pakistan is still weak. Due to such issues, the government's efforts have also remained minimal.

One of the reasons for a weak foundation of Pakistan's digital revolution is the lack of government's digital initiatives. Government's initiative ~~helps~~ encourage digital growth, priming the way for digital revolution. It is due to ~~our~~ such high importance that the United Nations has developed an E-Government Development Index (~~EGDI~~ EGDI). In a recent report, it highlighted Pakistan's need for literacy and telecommunication infrastructure, before moving towards fully electronic government. ['] Conclusively, it feels like Pakistan lacks a beacon of light in its relatively dark journey towards digital revolution.

However, many believe that Pakistan has created the required base for third revolution and has even given some lighthouse samples to the world.

The government has ~~started~~ ^{made} ~~initiatives~~ ^{policies} to develop Pakistan's digital muscle. The policies have lead to creation of individual initiatives, throughout the country. The biggest example is of former prime-minister's 'Digital Pakistan 2019' which further birthed the idea of 'knowledge-based economy'. Therefore, Pakistan does have a ~~proper~~ comprehensive roadmap and ~~is~~ consistent direction towards going digital.

The Pakistani government is constantly pushing Pakistan above its digital status quo by passing laws and ~~creating a conducive~~ ^{and for Pakistan to flourish} environment for ~~techno~~ digital initiatives. In 2021, Data protection bill was passed. and According to the same tadlab report, Pakistan has raised 351 million \$ for its tech startups in 2021 and 286 million \$ in half year of 2022. Therefore, Pakistan shows an optimistic picture when it comes to digital laws and their positive impacts. ~~Also~~ ^{Also}, the effects are not only limited to protection laws, they span over training initiatives too.

The government is taking IT training extremely seriously, hence, has established strong training initiatives. These initiatives are ^{mostly} governmental ~~and through public-private partnerships and~~ can be found throughout provinces. ~~For example~~ ^{Ignite's Digi Skills programme and Nation Vocation and Technical Training Commission (NATTC)} ~~could be~~ ^{could be two such examples.} In some time, Pakistan will have a ~~strong~~ vast community of digital experts to catalyze its journey to digital revolution.

^{with each passing day,} Digital infrastructure ~~also~~ is also becoming wider and better in Pakistan. Two very important components of Digital Infrastructure are digital payments and digital IDs. Mobile and digital ~~tran~~ internet banking transactions have witnessed an annual growth of 57% by volume and 81% by value, primarily due to increased consumer preference for digital channels to fulfill their financial needs (State Bank of Pakistan, Annual Payments Systems Review, 2022-23). Hence, Pakistan's digital infrastructure is on an upwards trend. The strength of infrastructure is also backed by ~~the~~ Government's digital ID and other schemes.

The Pakistani government has been at the forefront of digitisation in the country. ~~Great~~ It created online data bases ~~amongst~~ the in the very early days of e-governance. NADRA's initiatives of smart ID, Aap ki Ijazat and Nishan are exemplary. They also ^{supplement} ~~facilitate~~ the agenda of cyber security and ~~infrastructure~~ ^{strength} improving infrastructure's strength. Therefore, it can be

concluded that IT is coming to Pakistan and the authorities are doing their best to ensure its stay.

All the arguments claiming Pakistan's readiness for digital revolution do not hold water due to one reason or another. For example, the argument provided about Pakistan having a long term policy of knowledge based economy and Digital Pakistan, one may observe is not valid. The policy implementation and design has been highly incoherent. Pakistan launched IT boards in all its provinces but only Punjab and KP's initiatives can be seen ^{online} ~~only~~. Also, these initiatives are not uniform and follow different procedures which can create unnecessary complexity and serve as an evidence to lack of long term thinking.

Moreover, the statistics show that the implementation of laws in Pakistan is quite different from their addition to constitution. Pakistan was ranked 89 out of 131 countries, in the network readiness index of 2022. ~~Moreover~~, ^{Also} the digital revolution holds a potential of '6 billion' dollars generation per annum (Aina Khan, The world is digital, when will Pakistan catchup, Aug 23) which is currently not even close to what Pakistani tech startups are making. Hence, there is a long way to go before Pakistan embraces digital readiness.

It might look on the exterior, that IT training in Pakistan is ~~picking up~~ ^{improving} but if one takes a deep-dive into the kind of trainings required for digital ^{readiness}, one will notice that advanced learning is only the tip of iceberg. The actual picture is quite broad and would require building of core and vocational IT skills which can be build in secondary and high schools only. The overall literacy ratio in Pakistan is only 58%. (Pakistan literacy rate 1981-2023, Macro trends, Aug 23) and IT understanding is ^{even} quite behind. In order to create a population that can embrace digital revolution, an ^{educational} ~~entire~~ uplift is required, for ^{which} ~~which~~ ^{which} ~~which~~ ^{which} Pakistan is quite behind.

While, digital payments and IDs have taken Pakistan a step ahead, there is a long journey before Pakistan can said to be ready for digital revolution. A very important piece of physical infrastructure is missing. ~~Also~~ A global connectivity indicator (GCI) ranked Pakistan 75/79 in infrastructure. Also,

despite growth in digital payments 90% payments are still cash based because people do not trust the online financial systems (therefore, a lot of gap needs to be filled before Pakistan's digital infrastructure can be ready for a revolution).

In the same vein, e-governance efforts are also much behind the developed world. Even Pakistan's counterparts India and Bangladesh are ahead when it comes to digital. Bangladesh started Digital Bangladesh in 2009. The government created digital centres, connected schools and colleges to internet and provided internet to 90% of its population. Today, Bangladesh has transformed its agriculture sector because of digital technology. Pakistan is yet to create a digital system that can uplift the socio-economic situation of country and it does not seem to be making as creative and aggressive efforts like its counterparts. Hence, Pakistan has to set up ~~lot of~~ multiple systems before it can reap benefits of digital revolution.

In order to join the world on a journey to improved lifestyle and innovation, Pakistan must put efforts in creating and sustaining a comprehensive roadmap to develop laws, infrastructure, personnel, micro policies and systems. The Indian Prime Minister ~~said~~, Narendra Modi said, "I dream of Digital India where knowledge is strength and empowers the people" and ~~to do~~ the Modi's policies have now lead India to Digital Revolution. Pakistan can also follow in its footsteps and aim to create a change from top to bottom. ~~to that~~ Once an effective plan is made, it will not be long before Pakistan can also be ready for digital revolution.