



BNU Center for Policy
Research

THE POLICYBEACON

006

STRENGTHENING PAKISTAN-US INTERACTION IN IT AND THE DIGITAL ECONOMY BY: AYEDA HAMED



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In recognition of the growing need to continue contributing to the stock of knowledge through enquiry, research, and interaction, Beaconhouse National University (BNU) set up the Center for Policy Research (BCPR) as the hub for policy-oriented research. Originally focused on applied socio-economic areas, the Center's remit has been expanded to include the entire spectrum of disciplines and fields of inquiry studied at BNU.

BCPR seeks to foster a culture of rigorous, policy-relevant research and analysis. In keeping with the interdisciplinary approach of BNU, the center explores new avenues by taking an integrated view of Pakistan's policy issues in the context of our economic, political, and social realities, their changing dynamics, and global developments. It is also a platform for interacting with organizations, academia, think tanks, and related institutions in Pakistan and abroad.

Thriving under the patronage of eminent personalities, including the Center's Director, Dr. Hafiz A. Pasha, BCPR is in a strategic position to benefit the policy research and practice communities from the unique experience of its diverse faculty. The BNU community has already been contributing extensively to the policy debate in the country, and their counsel has been regularly sought by successive governments in their respective disciplines, both through formal institutional structures and informal exchanges.

Using cutting-edge analytical and critical thinking techniques, often developed indigenously by our experts over the years, BCPR shall furnish evidence-based research to develop specific proposals and recommendations to all relevant stakeholders for informed and inclusive policy-making in Pakistan.

BCPR envisions formulating its recommendations from the lens of its likely beneficiaries, making them primary stakeholders in policy-making exercises. It aims to elicit research to contribute to the ever-evolving narrative for human development and sustainable growth, eventually benefiting the citizens of Pakistan.

“ The Policy Beacon is BCPR's Policy Brief series in which authors analyze contemporary challenges and present recommendations for decision-makers. The series covers all disciplines taught at BNU. ”

Abstract

This policy paper on “Strengthening Pakistan-US interaction in IT and digital economy” brings attention to the urgent need for the development of Pakistan’s information technology sector and its use of the digital economy. It notes how Pakistan cannot escape the economic dire straits that it is currently in by applying the same solutions that have failed to bring about sustainable economic recovery in the past, such as relying on bailouts from international financial institutions, and that Pakistan must adopt an export-led strategy to sustainably develop its economy.

The IT sector stands out as an attractive area for Pakistan to prioritize in its goal to expand its export base. The US, which is already involved in developmental efforts in Pakistan and is a hub for technological progress and research in the world, emerges as a promising partner in Pakistan’s effort to expand its IT sector. This provides the next basis for Pakistan-US interaction in IT and the digital economy. This policy paper includes specific recommendations for the private and public sectors in Pakistan for bolstering the country’s IT capabilities that revolve around expanding IT literacy and access in Pakistan, particularly among the country’s youth. This paper also highlights how progress in this endeavour and strengthened US-Pakistan ties in the IT industry can have benefits that seep into other sectors as well. For instance, strong and consistent cooperation in the development of Pakistan’s IT industry can bolster US-Pakistan diplomatic relations as they expand their mutually beneficial linkages with each other. After proposing several recommendations for how US-Pakistan interactions in IT and the digital economy can be strengthened, the paper concludes by emphasizing that policy continuity by the Pakistani government is crucial for the success of this undertaking.

Introduction

Pakistan and the United States of America have a long history of geostrategic alliance. The US has been a valuable partner for Pakistan through its support of various developmental and financial goals of Pakistan. In return, Pakistan has remained a US ally in the region, allowing the Western power to anchor its roots in South Asia through combating regional and global challenges. This was particularly evident during the Cold War and the War on Terror, especially its Afghan campaign, when Pakistan proved to be a crucial regional ally of US.

The cooperation between Pakistan and the US has historically been based on geostrategy – the two countries have mostly cooperated for security and strategic reasons. However, arguably, Pakistan’s geostrategic significance for the US now has limited utility. It is believed that after the withdrawal of the US and NATO forces from Afghanistan, the US focus on the region has fundamentally changed. But more importantly, the rise of ‘soft power’ in international relations in the modern era has become crucial for nation-states where the physical use of weaponry or the demonstration of military prowess, while still useful, is being increasingly supplemented by demonstration of power and expertise in non-security related avenues and digital interactions.

The term ‘soft power’ was coined by the political scientist Joseph Nye Jr. in the 1980s to refer to “a country’s ability to influence others without resorting to coercive pressure.”¹ Soft power, for the context of this policy paper, can be understood as a form of power and influence that does not revolve around military and physical interaction, but aims to increase buy-in on the state’s preferred priorities. There is apparently a shift towards this form of interaction between the US and Pakistan. The foreign assistance that is a major part of Pakistan-US interaction is also a form of American soft power as it allows the US to influence Pakistan’s policymaking priorities without resorting to outright coercion, while also helping Pakistan work towards certain developmental goals.

Thus, conventional weapons, warfare, and diplomacy, while still intact, now have diminished importance. In order to keep up with the world and exploit its full developmental potential, Pakistan must shift towards strengthening geo-economic ties to the big players in the world, with the US being a major player on the world stage. The demands of the modern world have made it not only a question of enhancing trade and the population’s skills, but it has also become a matter of national security for a country to have technological prowess and economic strength. Hence, enhancing Pakistan’s IT sector and the digital economy are crucial from an economic and national security perspective. This means that Pakistan must update the content and substance of its partnership with the US by not only cooperating on matters of traditional security, but also giving much greater importance to enhancing the partnership in the sphere of information technology.

In its Integrated Country Strategy, the US Department of State has officially laid out intention

¹ Council on Foreign Relations, “Reading from Foreign Policy: What is soft power?”

<https://world101.cfr.org/foreign-policy/tools-foreign-policy/what-soft-power> (Accessed on 10 April 2024)

² US Department of State, “Integrated Country Strategy for Pakistan,”

https://www.state.gov/wp-content/uploads/2023/04/ICS_SCA_Pakistan_16MAR2023_PUBLIC.pdf (Accessed on 20 April 2024)

and objectives in its interactions with Pakistan, while bringing attention to the shifting areas of cooperation and potential partnership. The Integrated Country Strategy notes that:

“The U.S.-Pakistan relationship is at an inflection point. After having been viewed for decades predominantly through a regional and security-focused lens, climate change, 4 global health challenges, energy scarcity, food insecurity, economic instability, technological developments, and rapidly shifting trade and investment patterns are now understood to be critical aspects of our bilateral relations. This dramatic change has created an environment that provides unique opportunities while demanding adaptability, innovation, and sincere partnership in areas of genuine mutual interest.”

Thus, this need to update and transform the traditional bases of US-Pakistan ties is officially recognized by the US government as a priority. However, in order to help materialize this intention, more concrete objectives and goals are required.

This Policy Paper on strengthening US-Pakistan interaction in information technology and the digital economy will propose concrete measures that can help achieve this mutually beneficial aim of developing Pakistan’s ties with the US by exploring the realms of IT and the digital economy. It is important to point out that it is not the only sphere in which there is massive, uncovered potential for Pakistan and the US to deepen their relationship, but that it is one of the most crucial and cross-cutting areas for Pakistan’s sustained economic growth and development.

The importance of developing the IT sector and the digital economy in Pakistan

While geo-economic partnership can be developed on the basis of trade of traditional Pakistani exports such as textiles and raw materials, it will be more fruitful for Pakistan to focus on exporting high value-added goods and services to the US. The current profile of Pakistani exports to the US consists largely of raw materials and other basic inputs such as hides and skins, wood, and vegetables, according to the World Integrated Trade Solution (WITS) database that is run by the World Bank.³ The fact that the US is the largest export partner of Pakistan with a 21.1% partner share of the US in Pakistani exports in 2021⁴, demonstrates the importance of developing and strengthening Pakistan’s exports to the US in order to overcome its balance of payments crisis and alleviate its urgent domestic economic concerns in a

³ World Integrated Trade Solution, “Pakistan Product Exports to United States in US\$ Thousand 2017-2021 <https://wits.worldbank.org/CountryProfile/en/Country/PAK/StartYear/2017/EndYear/2021/TradeFlow/Export/or/XPRT-TRD-VL/Partner/USA/Product/All-Groups> (Accessed on 20 April 2024)

⁴ World Integrated Trade Solution, “Pakistan Trade” <https://wits.worldbank.org/countrysnapshot/en/PAK> (Accessed on 20 April 2024)

sustainable manner.

While US-headed international financial institutions such as the International Monetary Fund (IMF) are working with the Pakistani government to improve the dire economic situation in Pakistan by providing loans, there are serious consequences of IMF's assistance that Pakistan must face. For instance, the IMF requires stringent and specific policy reforms and shifts, unpopular austerity measures and structural adjustment that affect all Pakistanis. Moreover, the cycle of turning to IFIs to bail Pakistan out of its economic hardships is simply not a sustainable strategy. The renowned Pakistani economist, S. Akbar Zaidi has recounted the numerous negative downsides of this approach in his article, "The IMF as saviour?". He summarises experts' warnings that "inflation will jump from the current 25 per cent to 35pc, that the dollar might actually be available but closer to Rs. 300 rather than the infamous boast of Rs. 200 some months ago. Electricity and gas, if available at all, will become far more expensive, as will petrol and everything else on which the economy depends."

Such economic drawbacks to turning to international financial institutions for loan bailouts indicate the need for Pakistan to shift its strategy towards one that involves a much more mutually beneficial and balanced interaction with foreign institutions and states. Developing a robust trade relationship with major export partners, such as the US, will help Pakistan in a more sustainable manner than relying on bailouts after superfluously using up scarce national resources. Hence, in order to improve its economic situation in such a sustainable and meaningful way, Pakistan needs to adopt an export-led trade strategy instead of spending precious and scarce foreign exchange on costly value-added imports.

The most effective export-led strategy would be one which aims to enhance existing export opportunities while uncovering and exploring the potential of new avenues. This is because Pakistan faces great competition in the market for textiles from countries such as Bangladesh and Vietnam, which also have a massive population that can function as cheap labour. In a roundtable discussion at the BCPR, the Director of the South Asia program at the Washington DC-based think tank, the Wilson Center, focused on this aspect of Pakistan's diminished competitiveness in exporting textiles, and emphasized that Pakistan needs to "improve its pitch" to the US for a stronger geo-economic partnership. Pakistan should anticipate the further loss of competitiveness of its traditional exports at the global stage and get ahead of a future balance

⁵ S. Akbar Zaidi, DAWN, "The IMF as saviour?", 26 January 2023, <https://www.dawn.com/news/1733686> (Accessed on 22 April 2024)

⁶ Associated Press of Pakistan, "Pakistan earns \$2.283 billion from IT services' export in 9 months", 20 May 2024, <https://www.app.com.pk/business/pakistan-earns-2-283-billion-from-it-services-export-in-9-months/#:~:text=in%20%20months-Pakistan%20earns%20%242.283%20billion%20from%20IT%20services%27%20>

of payments crisis by investing in services and value-added exports. One of the fastest-growing industries in the world right now are the IT/ITeS industries and the digital economy. It appears to be a promising area of expansion where Pakistan and the US share a vision of development and progress. Pakistan's IT exports are currently less than \$3 billion⁶, which is insignificant compared to Pakistan's potential. Many other emerging economies' IT exports are substantially higher. Pakistan's IT industry can be developed and development in Pakistan and internally increasing IT literacy will help Pakistan overcome its current domestic economic crisis. This requires strong ties with the US in the fields of Information Technology (IT), and the digital economy.

What are IT and digital economy?

The Information Technology sector, and especially the digital economy emphasize building and strengthening networks at a global scale. The Asian Development Bank Institute's article, "Understanding the Digital Economy: What Is It and How Can It Transform Asia?" describes the digital economy as encompassing "a broad range of economic activities that use digitized information and knowledge as key factors of production." As a part of this, "internet, cloud computing, big data, fintech, and other new digital technologies are used to collect, store, analyze, and share information digitally and transform social interactions. The digitization of the economy creates benefits and efficiencies as digital technologies drive innovation and fuel job opportunities and economic growth. The digital economy also permeates all aspects of society, influencing the way people interact and bringing about broad sociological changes."⁷ This description of the digital economy highlights the widespread and pervasive nature of IT and the digital economy.

This shows that the digital economy is not a phenomenon whose effects will be strictly compartmentalized to one specific sector, e.g., the IT sector. Rather, building a strong digital and technological foundation in the country will have a myriad of benefits that will seep into other sectors as well. For instance, the development of Pakistan's IT industry and the digital economy can even bolster existing trade in traditional sectors by improving its production, the storage and collection of relevant information and in record-keeping and understanding patterns in production and pinpointing where there are avenues for improvement. The Wharton include the entire country" and a "farm might use consumer trend forecasting to pivot to -

export%20in%209,current%20fiscal%20year%202023%2D24. (Accessed on 21 May 2024)

⁷ Asian Development Bank Institute, "Understanding the Digital Economy: What Is It and How Can It Transform Asia" <https://www.adb.org/news/events/understanding-digital-economy-what-it-and-how-can-it-transform-asia>

⁸ Wharton Online, "What Is the Digital Economy?", 18 January 2023, <https://online.wharton.upenn.edu/blog/what-is-the-digital-economy/> (Accessed on 12 April 2024)

more plant-based products”.⁸ Hence, there are a large number of benefits and services that the IT sector and the digital economy offer, if they are developed and integrated intentionally into the general economy.

It is evident that integral parts of the public and private sphere in Pakistan recognize the primacy and urgency of developing the country’s IT sector. The Punjab Information Technology Board (PITB) “provides the foundation for Punjab’s innovation economy. The Board aims at not only modernizing the governance techniques through transparency induced methods but also at increasing the digital literacy of the citizens - among many other services. PITB is committed to effectively and efficiently provide IT services and infrastructure to the government and local and international businesses.”⁹ Although the PITB only caters to Punjab, this should not be taken as an indication of the inability of other provinces to be able to develop their IT sectors – in fact, this provides a ripe opportunity for the Pakistani government and the US to collaborate to set up similar bodies in other areas of Pakistan and coordinate among those bodies at a national scale to boost Pakistan’s digital development.

At a national scale, the Pakistan IT Industry Association, P@SHA, is a private body that is a “functional trade association” for the country’s IT industry and comprises of “IT and IT enabled companies that can lobby with the government to develop policies and initiatives that will encourage the development of the IT industry and attract more member companies to join the industry.”¹⁰ P@SHA has upwards of one thousand members¹¹, which underscores the commitment that Pakistan’s IT sector and leading IT companies share in collaborating with the government to unlock the potential of Pakistan it comes to IT and developing the digital economy.

How can the US contribute?

Despite such efforts and platforms to aid the development of the IT/ITeS industry in Pakistan, the country still requires a major boost in the growth of its IT industry and the digital economy to be able to compete internationally. The US can be a source of major know-how and expertise for Pakistan. This is because the US is a major hub of technological research and design and advancement in the world, being the home of the Silicon Valley. Moreover, there is already an extensive American footprint in Pakistan in terms of corporate involvement and the large number of US-led development programs in Pakistan. Thus, the transfer of American techno-

⁹ Punjab Information Technology Board, “About Us”, <https://pitb.gov.pk/about> (Accessed on 12 April 2024)

¹⁰ Pakistan IT Industry Association, “About P@SHA”, <https://www.pasha.org.pk/about-pasha/> (Accessed on 12 April 2024)

logical expertise to Pakistan can utilize existing linkages while expanding networks and avenues that are dedicated to strengthening US-Pakistan interactions in IT/ITeS and the digital economy.

1. Increasing IT access and literacy in Pakistan

There is a dire need to expand the availability of IT and digital resources among Pakistan's population. The well-known "Prime Minister's National Laptop Scheme" in Pakistan under which PM Shehbaz Sharif has gifted nearly 500,000 laptops to high-performing students in public universities¹² hints at the scarcity of such resources among the masses.

The "Government's Vision" behind this scheme is outlined as follows:¹³

- "Bringing improvement in quality of science and technology education, including ICT.
- Developing partnerships between industries and their education & training providers.
- Enabling smart campuses to facilitate instant networking and an improved learning environment.
- Boost productivity and value addition in the manufacturing sector.
- To ensure the potential of IT is fully used for benefiting the education sector.
- Increase productivity and efficiency by providing advanced IT technologies."

The Scheme and its rationale demonstrate a minimal level of the Pakistani government's commitment to enhancing Pakistan's IT literacy and the ability of the population, particularly the youth, to catch up with the developed world in terms of expanding IT access and literacy. Although this scheme has benefited some, it is not enough to be able to improve technological access in Pakistan substantially, which is a country with immense poverty and illiteracy that prevent the majority of its population from being able to buy and use smartphones, laptops, and other modern technology. Moreover, the affiliation of the PM's laptop scheme with a particular political leader and party has prevented it from being a continuous and regular program. Instead, it has been politicised and subjected to political whims and partisanship.

A collaboration between the US and Pakistani governments that is insulated from political whim

¹¹ Pakistan IT Industry Association, "About P@SHA", <https://www.pasha.org.pk/about-pasha/> (Accessed on 12 April 2024)

¹² Prime Minister's Youth Programme, "Prime Minister's Youth Laptop Scheme Phase-III", http://laptop.pmy.gov.pk/eligibility_criteria.php (Accessed on 12 April 2024)

and inconsistencies to greatly increase people's access to modern technology in Pakistan, that starts by distributing laptops to high-performing and needy students in universities and schools would make a notable difference.

To enhance IT literacy, a number of solutions are available. Firstly, American companies can launch large-scale training and capacity building initiatives for Pakistani youth. For instance, there is a recently launched collaboration between Google and the Beaconhouse National University where courses, or Career Certificates, that are developed by Google are offered to BNU students to help them develop useful and marketable technological skills, such as in "in-demand skills across various fields, including data analytics, digital marketing & e-commerce, IT support, project management, and user experience (UX) design".¹⁵ Such initiatives that train Pakistani students to have marketable and practical skills that will make them competitive candidates in the job market globally are crucial to boost the growth of the IT industry in Pakistan.

An extension of such programs would be to establish dedicated training centers and institutes for people at various levels of IT literacy. They can offer courses for those who are new to using laptops, to teaching various programming languages and other useful skills. These dedicated training centers can be established with the cooperation from US government in Pakistan, benefiting from the opportunities arising from the training courses on state-of-the-art technology that is available in the US. Thus, the Pakistani students would not only gain IT literacy, but would be equipped with information and expertise on the latest technology. Such contribution of American companies and institutes will ensure that the trainees in Pakistan will not lag behind the rest of the world for as long as they will be learning about the latest products and developments.

Another measure to boost IT literacy in Pakistan involves encouraging high-achieving Pakistani IT students to gain expert knowledge from the US through exchange programs in universities, scholarships, and internship programs. The Higher Education Commission (HEC) in Pakistan, which facilitates the access and regulation of higher education in Pakistan can act as a facilitator for such IT-literacy boosting programs as well. The Pakistani and American governments can work together to send talented Pakistani university students who are interested in the IT/ITeS fields and the digital economy to study at American institutes through

¹³ Prime Minister's Youth Programme, "Prime Minister's Youth Laptop Scheme Phase-III", http://laptop.pmyp.gov.pk/eligibility_criteria.php (Accessed on 12 April 2024)

¹⁴ Associated Press of Pakistan, "Minister announces resuming laptop scheme for students", 26 May 2023, <https://www.app.com.pk/national/minister-announces-resuming-laptop-scheme-for-students>

scholarships, and research opportunities with willing professors and faculty. Moreover, renowned companies such as Google and Microsoft that have links to Pakistan can invite those students at a competitive basis to learn at their headquarters through internship programs that are specifically designed to cater to willing, talented and dedicated students, particularly women and members of other marginalised groups in Pakistan.

The need for such reforms is expressed in the comprehensive report on “Unlocking Pakistan’s IT Potential: A Roadmap for IT/ITeS Growth” that was created by PwC, Oxford Global Projects, the Government of Punjab, and other stakeholders. This report presents the results of a survey they conducted that underline the urgency and need for expanding IT literacy and access in Pakistan through the aforementioned proposals. The survey shows that “Sourcing suitable faculty 15 BNU News, “Beaconhouse National University and Tech Valley Join Forces to Launch Google Career Certificate Scholarship Program Thus, Higher Education Institutions in Pakistan face a myriad of challenges when it comes to their ability to provide IT related education. These challenges can be overcome by collaboration with reputable and resourceful international institutes and corporations, of which the US has an abundance.

Lastly, the report notes that “HEIs are planning to gear themselves predominantly towards introducing Artificial Intelligence (42%) and Cyber Security (38%) in research and teaching,” 17 thereby specifically outlining potential areas for future collaboration with the US government and American institutes and corporations.

2. Strengthen the relationship between IT companies in Pakistan and the US

While the previous recommendation largely focuses on the role the US and Pakistani governments can play in enhancing IT access and literacy in Pakistan, private tech companies can act as crucial and constructive partners in the effort to strengthen US-Pakistani interaction in IT and the digital economy as well.

Increasing collaboration between Pakistani and American tech companies can boost the pace of technological progress in Pakistan as companies attain know-how from their American counterparts. For instance, to expand the digital economy in Pakistan, American

¹⁵ BNU News, “Beaconhouse National University and Tech Valley Join Forces to Launch Google Career Certificate Scholarship program
<https://bnu.edu.pk/bnu/bnu-news/Post/3773> (Accessed on 20 April 2024)

companies can hold workshops for businessowners in Pakistan to incorporate modern technology in their daily functions to improve everyday interactions, and to be able to reach foreign markets, e.g., through accessing online platforms where they can market their products, increasing awareness of the available jobs in this arena in Pakistan and helping the youth find employment in IT and the digital economy in Pakistan and the US.

In conjunction with this, Pakistani and American tech companies can collaborate to explore how IT can be used to speed up or improve existing systems and how Pakistan can leverage its comparative advantage to become more competitive on the global stage. This can involve Pakistan's burgeoning population, especially the youth, being trained to work for foreign 16 Ministry of Information Technology and Telecommunication (Accessed on 20 April 11 companies as gig workers and freelancers according to the skills in which they have gained training.

Explore new avenues for collaboration and expanding the IT sector in such a manner can strengthen both people-to-people and business-to-business relationship between the two countries. Thus, the resolve to cooperate in the IT and digital economy has the potential to permeate into other aspects of the two countries' diplomatic efforts as their linkages increase through private and public sector partnership in the IT/IT-enabled services' fields and the expansion of the digital economy.

What should Pakistan do?

In order to maximize the utility of strengthened US-Pakistan interactions, Pakistan needs to adopt a clear and forward-looking resolve to fully uncover the potential of its population and resources to develop the country's digital economy and the IT/ITeS industries. This means the private and public sectors must cooperate to not only play catch-up with the rest of the world's technological capabilities, but to exploit opportunities for great progress and excellence in this field.

As discussed earlier, education-based incentives should be drastically expanded. This involves increasing availability of avenues for learning coding, becoming digitally literate, introducing IT streams in schools and universities, and introducing IT curricula in schools

¹ Ministry of Information Technology and Telecommunication, "Unlocking Pakistan's IT Potential: A Roadmap for IT/ITeS Export Growth", <https://moitt.gov.pk/SiteImage/Misc/files/Roadmap%20for%20IT%20ITeS%20Growth.pdf> (Accessed on 20 April

at that impart crucial and practical skills for the future.

In addition, the Pakistani government can aid private companies in this endeavour by expanding tax incentives for those who want to invest in IT development and IT gig workers. Freelancers in Pakistan have greatly profited from the expansion of the digital economy and an increase in the availability of IT infrastructure in Pakistan, to the benefit of the whole country. The Ministry of IT&T's report in 2020 highlights that "During FY 2019-20 with exports to 120+ countries, including the US\$ 150 million earned by freelancers," Pakistan's IT sector has expanded.¹⁸ Additionally, Pakistan has not only accomplished to secure the top slot in Asia it has also ranked 4th in the world in the growth of freelance earnings in the second quarter, shortly behind the United States at 78 percent growth, the United Kingdom at 59 percent growth and Brazil at just 1 percent more than that of Pakistan."¹⁹ Hence, freelancing using Pakistan's existing IT and digital infrastructure has already put the country on the map as a global player in freelance work. Further investment in increasing Pakistanis' access to modern technology, reliable Wi-Fi connections, IT training courses and other reforms promises immense rewards.

To boost public demand for such reforms and to make sure they are taken advantage of widely, there can be reduced tariffs and taxes on imported IT machinery, along with tax relief on the incomes of IT workers. The US can deepen its trade relationship with Pakistan by offering special discounts, expedited shipping and other incentives to Pakistani IT companies when they are importing machinery from the US.

Encouraging Pakistani IT firms to partner with US-based companies to increase private partnerships in this arena will prove to be fruitful for long-term consistency as well. In case there is a faltering in the government's efforts and momentum to strengthen such ties, the private sphere continues to collaborate. Having such a multi-dimensional interaction with the US in this regard will also increase confidence in Pakistan's commitment to the goal and encourage American businesses and government to strengthen ties with Pakistan in this regard.

Hence, the Pakistani government should ensure policy continuity in this endeavour,

¹⁷ Ministry of Information Technology and Telecommunication, "Unlocking Pakistan's IT Potential: A Roadmap for IT/ITeS Export Growth", page 5, 23 November 2023
<https://moitt.gov.pk/SiteImage/Misc/files/Roadmap%20for%20IT%20ITeS%20Growth.pdf> (Accessed on 20 April 2023), page 5, 23 November 2023, <https://moitt.gov.pk/SiteImage/Misc/files/Roadmap%20for%20IT%20ITeS%20Growth.pdf>

¹⁸ Ministry of Information Technology and Telecommunication, "Pakistan's IT Industry Overview 2020", page 18, <https://moittgov.pk/SiteImage/Misc/files/Pakistan%27s%20IT%20Industry%20Report-Printer.pdf>

and with the cooperation of the private sector, provide a reliable and conducive environment for collective partnerships with the US to take place. This should happen alongside a concerted effort to develop a high standard for cyber-security and connectivity in the country while guaranteeing that the technical know-how and expertise does not fall into the wrong hands.

Lastly, the Pakistani government should survey what the population, particularly the youth and industry leaders, want with regard to strengthening IT and IT-enabled services sectors in the national economy and their linkages with the leading global IT players, particularly in the United States. The recommendations should be taken into account and enacted while demonstrating an honest and long-standing commitment to strengthening US-Pakistan partnership in interaction in IT and digital economy.

What is in it for the US?

This effort to strengthen US-Pakistan interaction and cooperation in IT the digital economy promises significant benefits for the US as well.

Firstly, Pakistan's large youth population is a major potential resource of freelancers for US companies. Pakistanis can be trained in the specific skills that are in demand in the US and can be made available for remote employment and work. Thus, the bright, eager, and youthful Pakistani population that already has a nascent connection with the US in the IT industry can be further encouraged and trained to help fulfill the IT needs of American companies.

"Pakistan's IT Industry Overview 2020," a report generated by the Ministry of Information Technology and Telecommunications, and the Pakistan Software Export Board in 2020 proposes several reasons for Pakistan's attractiveness as an investment destination for international IT companies and stakeholders.

"Approximately, 25,000 IT graduates enter Pakistan's workforce each year, thus providing Pakistani IT industry with the much-needed workforce. Pakistan's IT Industry growth has been augmented by the fact that costs remain low for the IT industry due to a plethora of factors such as low labor cost and strong

¹⁹ Ministry of Information Technology and Telecommunication, "Pakistan's IT Industry Overview 2020", page 18, <https://moitt.gov.pk/SiteImage/Misc/files/Pakistan%27s%20IT%20Industry%20Report-Printer.pdf> (Accessed on 20 April)

²⁰ Ministry of Information Technology and Telecommunication, "Pakistan's IT Industry Overview 2020", page 17, <https://moitt.gov.pk/SiteImage/Misc/files/Pakistan%27s%20IT%20Industry%20Report-Printer.pdf> (Accessed on 20 April 2024)

government incentives. The average annual cost of a software engineer in Pakistan is one fifth of the cost in USA and Europe. Pakistan is ranked 5th most financially attractive location in the world for offshore services, according to A.T. Kearney's Global Services Location Index 2019.”

Although Pakistan's workforce is ripe for training and to be gainfully employed in the IT industry, there is a massive shortfall in IT investment in the country, which is less than that of competitor countries. “Pakistan's IT Industry Overview 2020” explains that:

“According to the information available, funding is a significant bottleneck in Pakistan. “There is only US\$ 0.06 per capita of venture capital money in Pakistan per year, while Bangladesh has US\$ 0.07, Nigeria US\$ 0.18 and India US\$ 3.72. In 2017, only nine Pakistani startups received venture capital funding compared to 34 in Nigeria, 38 in the UAE and approximately 790 in India. Overall, Pakistan's tech start-ups raised under US\$ 30 million in 2018 compared to countries such as Indonesia (excluding unicorns) raised over US\$ 274 million in 2018”.

Thus, a US-Pakistan collaboration promises great benefits for the US through the availability of an eager, skillful and cheap work force, and the partnership of a government having immense appetite for attracting foreign investment in the economy and the society for the purpose of developing the national IT sector. Moreover, increasing cooperation with Pakistan in IT and the digital economy will also be beneficial for the US as increased linkages between the two countries will encourage cooperation in other areas of the relationship as well. For example, collaborations in IT projects can spill over to fulfilling American goals in the fields of education in Pakistan as IT-enabled services offer a range of benefits in helping expand education opportunities, and training in other areas as well.

A manifestation of this is the “Digital Economy Enhancement Project (DEEP),” a World Bank initiative that has recently launched in March 2024 in Pakistan. The project “will develop digital authentication and data-sharing platforms to enable Pakistan to respond more effectively and efficiently to shocks, deliver better e-government services to citizens and firms, and support regulatory reforms in the sector, including to enable greater private participation, and strengthening personal data protection and online safety.”²² In conjunction with this, DEEP will “promote financial inclusion by enabling women in particular, to open bank accounts or apply

²¹ Ministry of Information Technology and Telecommunication, “Pakistan's IT Industry Overview 2020”, page 17, <https://moitt.gov.pk/SiteImage/Misc/files/Pakistan%27s%20IT%20Industry%20Report-Printer.pdf> (Accessed on 20 April 2024)

²² The World Bank, “Pakistan: Two New World Bank Projects to Support the Digital Economy and Increase Resilience to Floods” March 22 2024, <https://www.worldbank.org/en/news/press-release/2024/03/21/pakistan-two-new-world-bank-projects-to-support-the-digital-economy-and-increase-resilience-to-floods> (Accessed on 20 April 2024))

remotely for credit through a smartphone application. It will also contribute to addressing barriers such as limited mobility and digital literacy.”²³ This wide-ranging project is a sign that there is a will in international institutions to invest in Pakistan’s human development through the expansion and support of its IT and digital spheres.

The Pakistan government must not only facilitate such projects, but it must also maintain policy continuity, thereby encouraging foreign investors and institutions to invest in the country’s development with the assurance that they will not face avoidable uncertainties and hurdles. Pakistan must use existing projects like DEEP to help bolster the country’s image as an attractive destination for foreign investment and capital. Additionally, the government must also capitalise on the fast growth in artificial intelligence to boost the country’s effort to not only become updated on, but also to innovate in the technological world. Pakistan will have to ensure a robust policy framework and implementation to make full use of this second IT revolution in the modern era.

Conclusion

In conclusion, the efforts to strengthen interactions between the US and Pakistan in the sectors of information technology and the digital economy for substantial progress require the dedicated and consistent participation of the public and private sectors in both countries. There is need for the two sides to enhance coordination towards expanding IT literacy and access in Pakistan, and particularly target the youth and the marginalised communities in Pakistan as beneficiaries of this effort. Hand in hand with this, the private sectors in the US and Pakistan can strengthen their cooperation to increase the exchange of expertise, technology and know-how, and American tech companies can benefit from the availability of an eager and large Pakistani youth population that is already proving itself to be a great resource for freelance work on the global stage. Thus, both Pakistan and the US stand to gain from increased cooperation in the IT sector while using the linkages that already exist between the two countries with a view to expanding those networks of collaboration for further progress.

²³ The World Bank, “Pakistan: Two New World Bank Projects to Support the Digital Economy and Increase Resilience to Floods”, March 22 2024, <https://www.worldbank.org/en/news/press-release/2024/03/21/pakistan-two-new-world-bank-projects-to-support-the-digital-economy-and-increase-resilience-to-floods> (Accessed on 20 April 2024)



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