Comparative
Analysis

Support Policies in Emerging IT Economies

📅 **June 2022**

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Pakistan Software Houses Association for IT & ITES

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Comparative Analysis of Support Policies in IT Economies

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Message by the Chairman

As the licensed representative body for the IT and ITeS industry, P@SHA represents thousands of IT and IT-enabled service companies and has been at the forefront of the #DigitalPakistan revolution. P@SHA has been working to take the IT industry to the next level. To make it happen, P@SHA works closely with the relevant stakeholders on improving the Ease of Doing Business (EoDB) to accelerate growth in exports and fast-track digital transformation in the domestic market! This requires up-skilling existing talent and adding new resources in cutting-edge technologies, which is enabled by industry-academia partnerships.

These are exciting times where the IT and ITeS industry is growing at a rapid pace. Having grown from a nascent industry to a prominent services export sector in a short timeframe, there are now several key issues that require addressing to reach the next wave of growth. It is being recognized by our government as the leading sector capable of driving economic growth in Pakistan. We can achieve the next stage only if relevant stakeholders focus and work together for the same goal.

With this growth and promising potential, there is a dire need for consistent policies and a favorable environment. While we have been working with the Federal Ministry of Information Technology and Telecommunications (MoITT) and Pakistan Software Export Board (PSEB) closely, the growth has the potential to address Pakistan's economic challenges, and government's strategic commitment is required to make it happen! We appreciate MoITT's efforts in taking different steps over the last years as it is evident how those steps resulted in increased growth over the last decade.

However, the next stage cannot be achieved with one ministry alone! A highest level strategic direction and integration of different public organizations is needed to embark on this revolutionary and transformative journey of #DigitalPakistan.

Over the last year, we have seen how the government has extended its support to the IT and ITeS industry. However, it's unfortunate that several of the commitments did not convert to on-ground actions. IT industry had the potential to cross over USD 3 billion in exports in 2022, however, with the delayed implementation of commitments, we may not be able to meet the targets. The sudden announcement of the change of tax regime, despite the original commitment of tax exemption on exports till 2025, not only created uncertainty and a state of panic about inconsistent policies but also raised questions about the understanding of the government regarding the gravity of the situation and how it will jeopardize the growth. While this report captures the steps taken by other countries, we emphasize ensuring continuity and consistency of policy for the continued growth of the IT and ITeS industry.

I am extremely pleased for P@SHA to launch a Comparative Analysis of Support Policies in IT Economies. P@SHA's Research Team has worked extensively on it to deliver a data-based yard stick that can help decision-makers make informed policies. I am positive that this report will serve as the cornerstone for initiating a new era in the growth and continued progress of exports and domestic digital transformation in Pakistan.

Badar Khushnood
Chairman, P@SHA

Foreword

I am pleased to present the **Comparative Analysis of Support Policies in IT Economies,** an effort of P@SHA to allow government and policy-makers to make informed decisions for the IT and ITeS industry in Pakistan.

The IT industry has surpassed all traditional sectors with its record-breaking growth. With a 75% surplus recorded last year, the IT and ITeS industry has been the only industry with significantly high exports and low imports. Pakistan has a growing youth population, and hence IT industry is the future of Pakistan. With a higher export yield per worker, the IT industry has the potential to generate jobs and contribute to poverty alleviation and move the majority of families to the middle-income sector.

However, the IT industry is not like traditional sectors! Unlike other industries which grew in the industrial era, the IT industry requires the ecosystem to be built with a Knowledge Economy mindset, with a focus on country perception, policy continuity and incentivizing instead of regulating. The IT industry represents the potential to grow exponentially in a favorable ecosystem.

Last year, P@SHA released **Impact Analysis of Removal of Tax Exemption** which included a brief comparative analysis of policies for the IT and ITeS industry. The image went viral and led to the historic announcement of Cash Reward, the first-ever monetary incentive for the IT and ITeS industry in Pakistan. It also led to questions about details of policies and made us realize to look deeper into journeys of different countries and learn from what has worked for them!

Comparative Analysis of Support Policies in IT Economies has tried to answer these questions!

We went deeper and divided policies into four categories: fiscal, monetary, human capital, and investment climate, to compare different comparable countries and their policies for the IT and ITeS industry. The report captures data using reliable sources (mentioned with each slide) to first share a situational analysis of different growth indicators, compares policies of Pakistan for textile vs. IT, and then goes deeper into each policy category to share details and case studies to learn from the best practices. The report concludes with policy recommendations based on comparative analysis to propose a way forward for the policymakers.

We see this report as the first chapter in Pakistan's history of the IT and ITeS industry for launching data-driven programs, and we at P@SHA look forward to playing our role in working with the government and industry in making them successful!

I would like to express gratitude to all industry leaders and stakeholders for sharing their valuable feedback that helped us develop this report. We hope that you find the comparative analysis useful. If you have any queries, comments, or suggestions, please feel free to reach out to me at **sg@pasha.org.pk** or write to the P@SHA research team at **services@pasha.org.pk**.
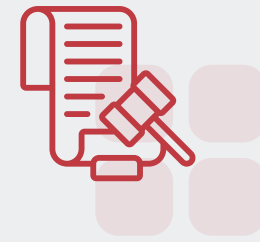
Hira Zainab
Secretary General

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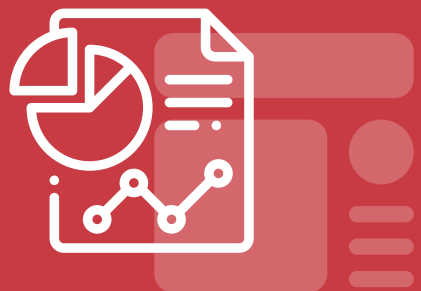# Framework for Analysis

Selection of Countries →

Research Framework →

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Selection of Countries for Comparative Analysis

4 emerging economies have been selected for the comparative analysis with Pakistan.

India

Created in the same year as Pakistan, IT exports is the top service export category for India. In 2021, India reported to have reached approx. **200 billion USD**. It accounts for approximately 55% market share of the US$ 200-250 billion global services sourcing business in 2019-20. The IT industry accounted for 8% of India's GDP in 2020.

Bangladesh

The Bangladesh IT industry is one of the fastest-growing sectors in the country, with projections to reach USD 5 billion by 2025. The Covid pandemic bolstered the country's move towards digitization and in 2020, a Harvard Business Review[1] study identified it as a **break-through economy** with the potential to lead the country's long-term economic transformation
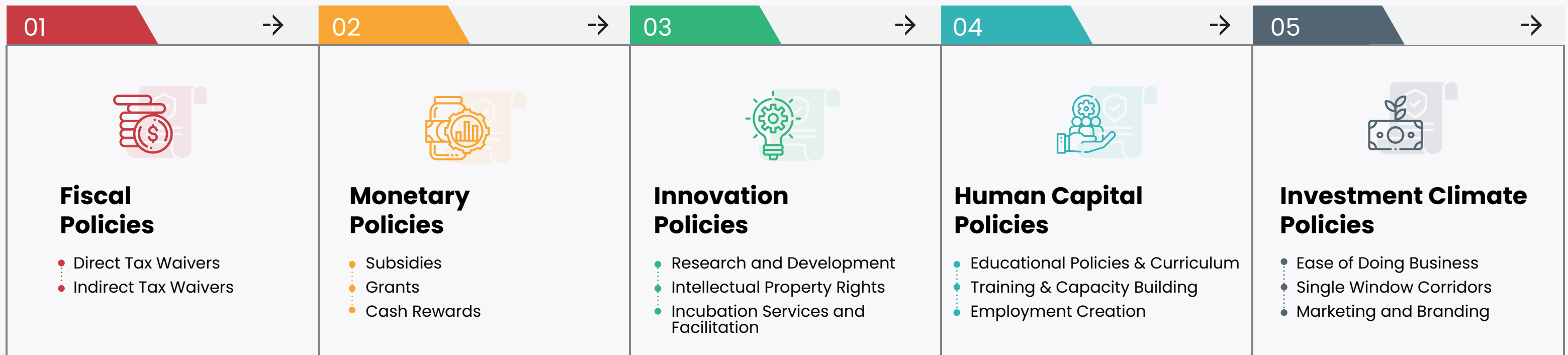
Malaysia

ICT is one of Malaysia' fastest growing sectors, contributing 22.6%[2] to the GDP in 2020, with annual growth of 10.4%. Roughly 7.7% of the country's total workforce is employed by the ICT industry, which amounts to approximately **1.16 million individuals**. A key reform in Malaysia has been to leverage indirect taxation of IT services provided by non-residents[3], generating an estimated revenue of USD 100m in 2020.

Philippines

The country's ICT industry has been growing at an annual rate of 24% since 2019, with the momentum expected to continue until 2025. Since 2016, Philippines has **increased its broadband internet speed by 741.34%** and mobile internet speed by 341.4% and significantly enhanced its ease of doing business[4], making it an attractive destination for foreign investment.

Vietnam

Although Vietnam is not part of primary analysis due to lack of publicly available data, special cases from Vietnam have also been included as case studies. The ICT sector in Vietnam has seen high growth[5], driven by high quality labor at low cost. Supported by tax and labor incentives, Vietnam is currently the **8th largest IT services provider** in the world.

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Research Framework for Analysis

Given the different types of government policies and interventions impacting the development of the IT and ITeS sector, a categorization of the individual policy instruments becomes essential.

A thorough analysis of policies across leading Asian IT economies show that support policy measures and government interventions are broadly distributed across **5 main categories**:

01 →	02 →	03 →	04 →	05 →
Fiscal Policies	**Monetary Policies**	**Innovation Policies**	**Human Capital Policies**	**Investment Climate Policies**
• Direct Tax Waivers • Indirect Tax Waivers	• Subsidies • Grants • Cash Rewards	• Research and Development • Intellectual Property Rights • Incubation Services and Facilitation	• Educational Policies & Curriculum • Training & Capacity Building • Employment Creation	• Ease of Doing Business • Single Window Corridors • Marketing and Branding

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Situational Analysis

Access to Internet

Quality of Service

Mobile Subscribers

IT Exports

Textile Exports

Digital Resonance

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Pakistan's IT Industry Overview

600,000+
IT Professionals*

25,000+
IT Graduates/Year

$2.1 billion
IT Export Record
25-30% of the
services sector

100%
increase in contribution
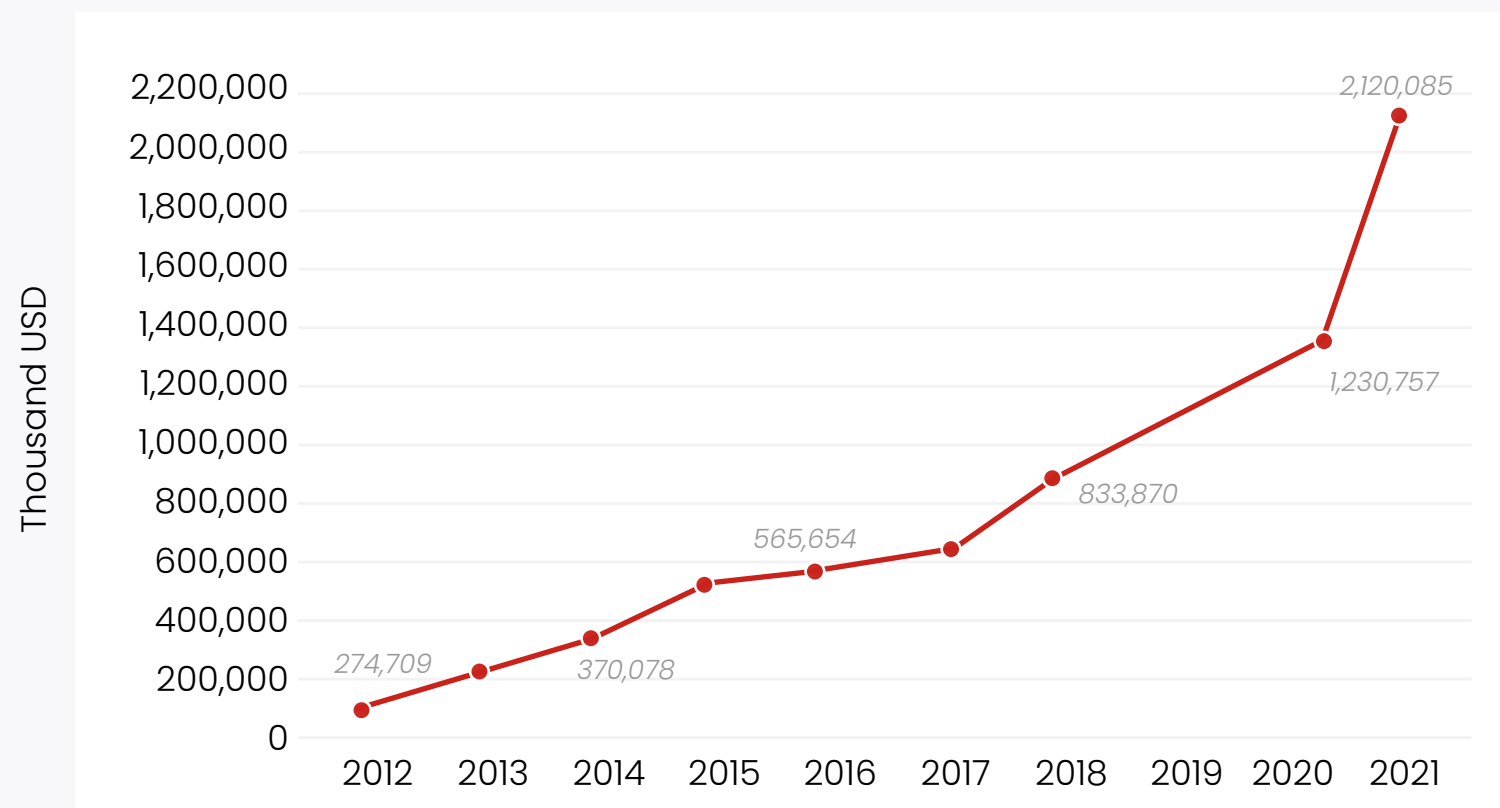to total export in the
last 5 years

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Pakistan's IT Industry Annual Export Trend

In 2021, IT Industry growth has **surpassed all traditional sectors** with YOY IT exports* increased by **47%.**

100% increase in contribution to total export in the last 5 years

Annual Export Trend

Contribution of IT Exports (%) to Total Exports
in the last 5 years
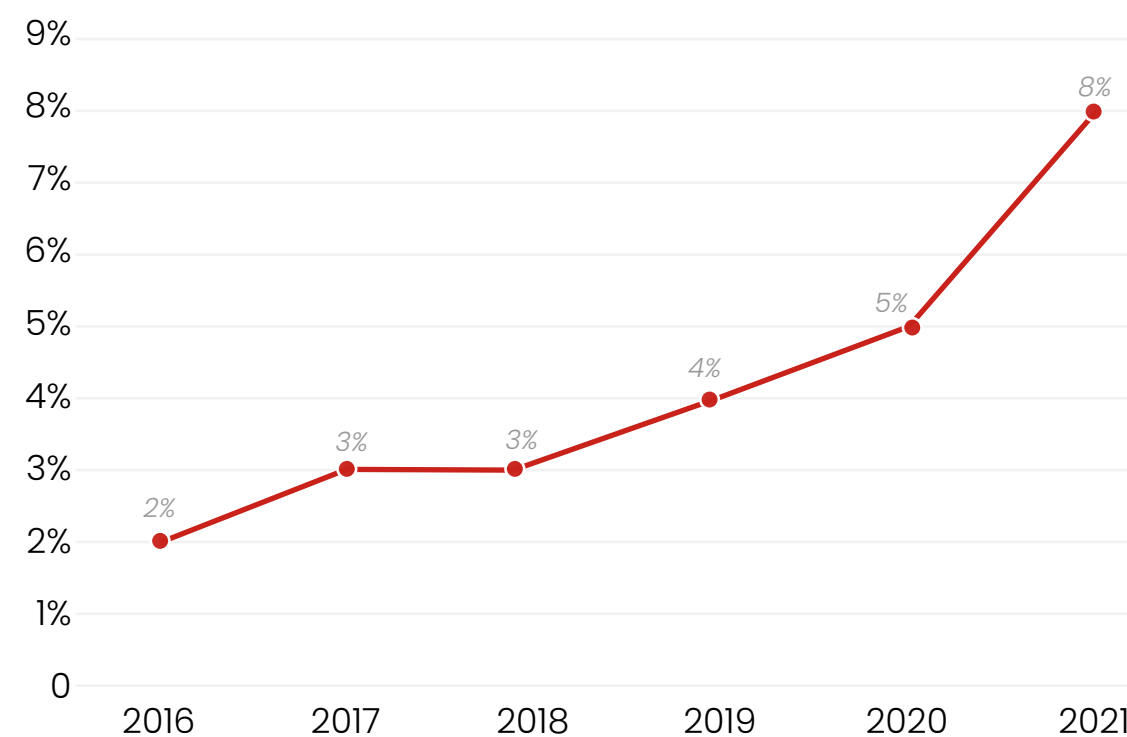
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Comparative Situational Analysis

Access to Internet, % of population

	🇧🇩 Bangladesh	🇮🇳 India	🇲🇾 Malaysia	🇵🇭 Philippines	🇵🇰 Pakistan
2010	3.70	7.50	56.30	25.00	8.00
2015	12.90	14.90	71.06	36.90	11.00
2020	24.80	43.00	89.56	49.80	25.00

Mobile Subscriptions, per 100

	🇧🇩 Bangladesh	🇮🇳 India	🇲🇾 Malaysia	🇵🇭 Philippines	🇵🇰 Pakistan
2010	46.03	60.94	120.03	88.49	55.28
2015	84.08	76.41	145.70	115.40	63.13
2020	107.04	83.60	135.09	136.50	79.51

Textile Exports, Billion USD

	🇧🇩 Bangladesh	🇮🇳 India	🇲🇾 Malaysia	🇵🇭 Philippines	🇵🇰 Pakistan
2010	16.75	27.10	2.78	1.26	11.60
2015	28.33	37.16	3.07	1.66	12.90
2020	27.95	35.49	3.35	1.15	13.60

IT Exports, Billion USD

	🇧🇩 Bangladesh	🇮🇳 India	🇲🇾 Malaysia	🇵🇭 Philippines	🇵🇰 Pakistan
2010	0.31	54.24	2.13	2.24	0.43
2015	0.48	76.37	2.66	3.46	0.79
2020	0.41	99.47	3.19	5.61	1.72

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Access to Internet, % of Population

- Malaysia leads the region in internet penetration, with **89.6% of the population** having access to internet in 2020

- Pakistan is among the **top 3 countries** with the highest 5-year growth patterns, trailing behind India

- Pakistan quickly catching-up and growing at a rapid pace and had highest YOY growth in region in 2020 - but access to internet remains **lowest in the region**.

Access to Internet, 5-Year Growth
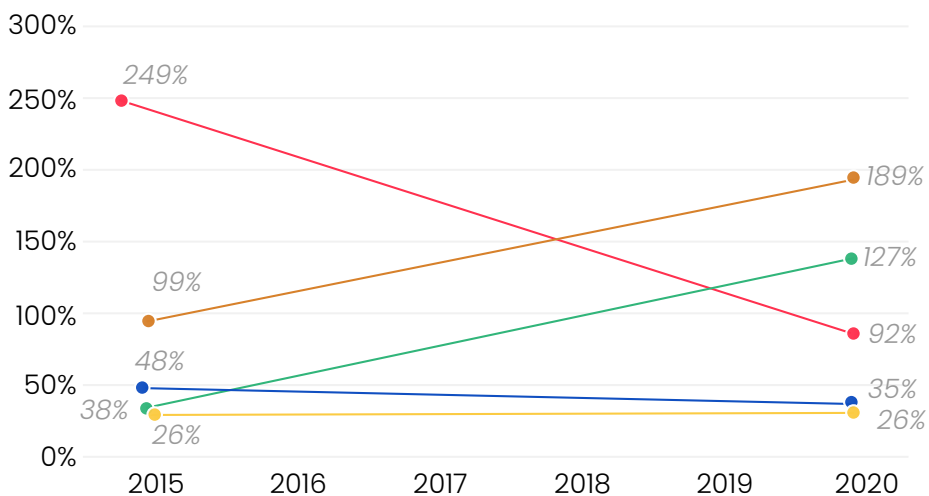
Access to internet, annual growth (%)

Access to internet, % of population

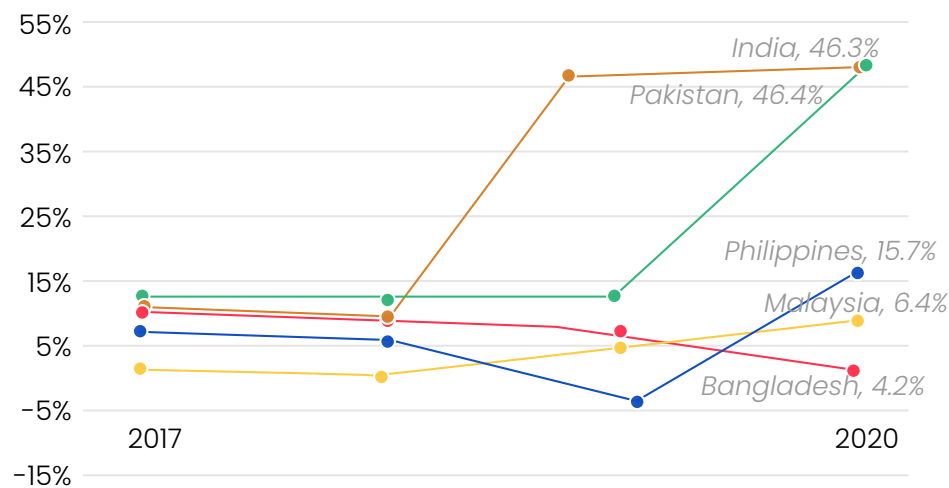|	🇧🇩	🇮🇳	🇲🇾	🇵🇭	🇵🇰
2010	3.70	7.50	56.30	25.00	8.00
2015	12.90	14.90	71.06	36.90	11.00
Growth	249%	99%	26%	48%	38%
2020	24.80	43.00	89.56	49.80	25.00
Growth	92%	189%	26%	35%	127%

Source: World Development Indicators, 2022

Bangladesh · **India** · **Malaysia** · **Philippines** · **Pakistan**

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Mobile Subscriptions, per 100

- Malaysia and Philippines have the **highest mobile subscriptions per 100** but overall trend is declining

- Pakistan is the **only country** with **steadily increasing** mobile subscribers over 5 years

- Closely trailing behind Bangladesh in annual growth and significantly ahead of India in increasing penetration

- Despite growth, mobile subscriptions per 100 in Pakistan **remain lowest in the region**

Mobile subscriptions, per 100

	🇧🇩	🇮🇳	🇲🇾	🇵🇭	🇵🇰
2010	46.03	60.94	120.03	88.49	55.28
2015 Growth	84.08 83%	76.41 25%	145.70 21%	115.40 30%	63.13 14%
2020 Growth	107.04 27%	83.60 9%	135.09 −7%	136.50 18%	79.51 26%

Mobile Subscriptions per 100, 5-Year Growth Trend

Bangladesh, 27%
Pakistan, 26%
Philippines, 18%
India, 9%
Malaysia, −7%
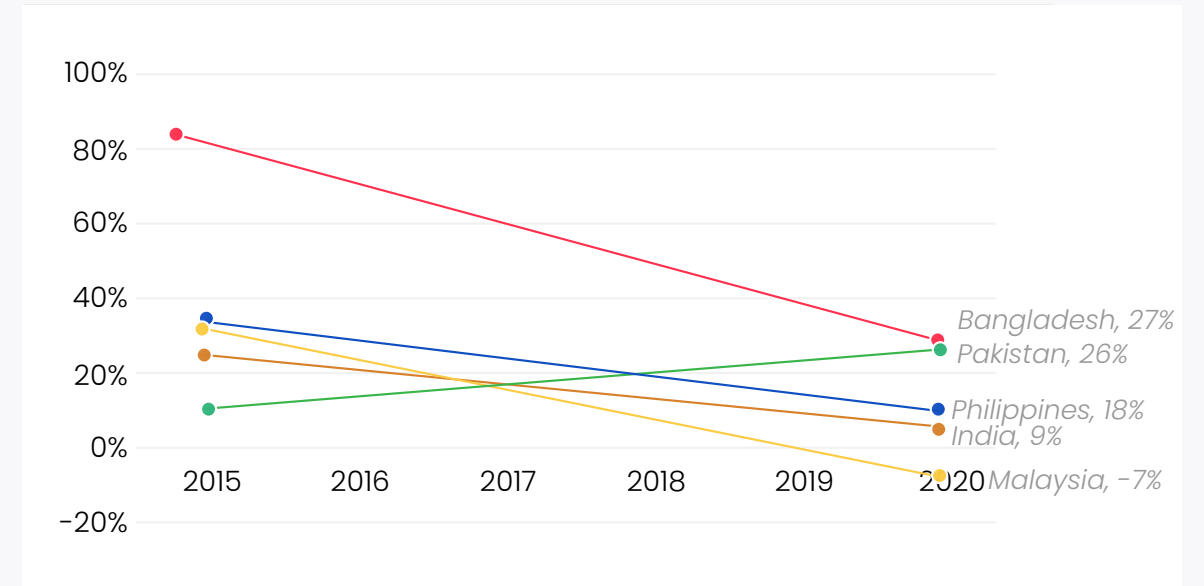
Mobile Subscriptions per 100, annual growth (%)

Bangladesh, 5.4%
Pakistan, 4.1%
India, −0.8%
Malaysia, −3.2%
Philippines, −11.8%

● Bangladesh   ● India   ● Malaysia   ● Philippines   ● Pakistan

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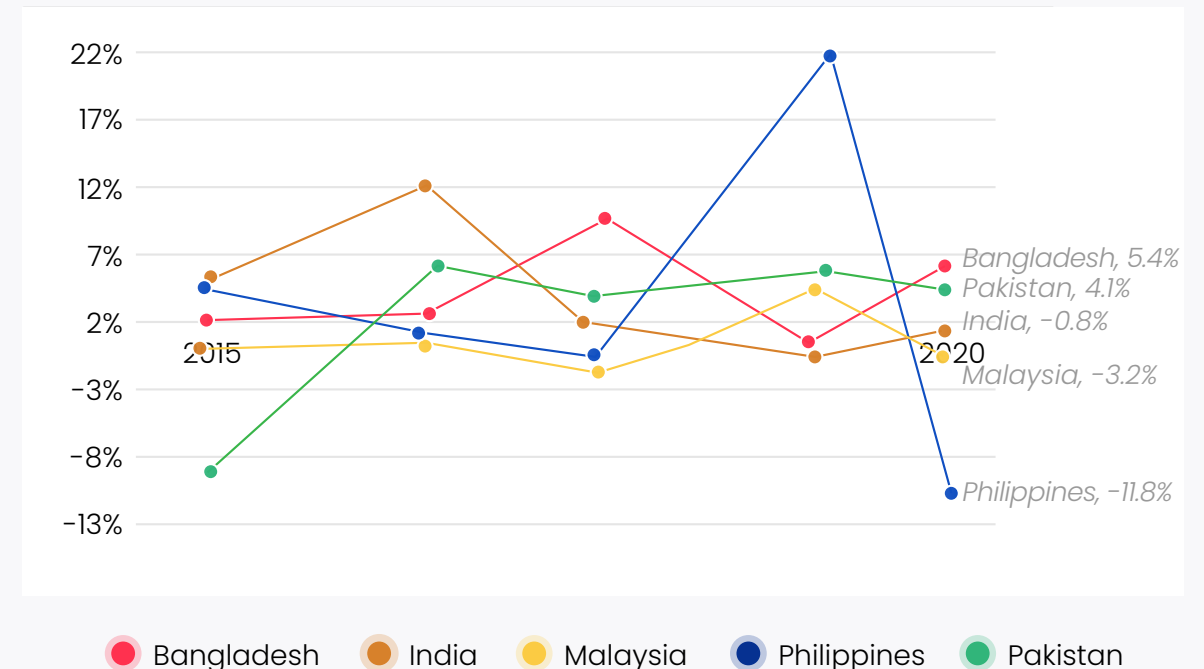
Quality of Service

- Pakistan's growth in internet access and mobile subscriptions **is not aligned with QoS**

- Internet in Pakistan is considerably more **expensive** than its counterparts

- Coverage of 4G services and broadband subscription **remains low** in Pakistan

Coverage

4G coverage (% of population)

3G coverage (% of population)

Mobile cellular network coverage (% of population)

Active mobile-broadband subscriptions (per 100)
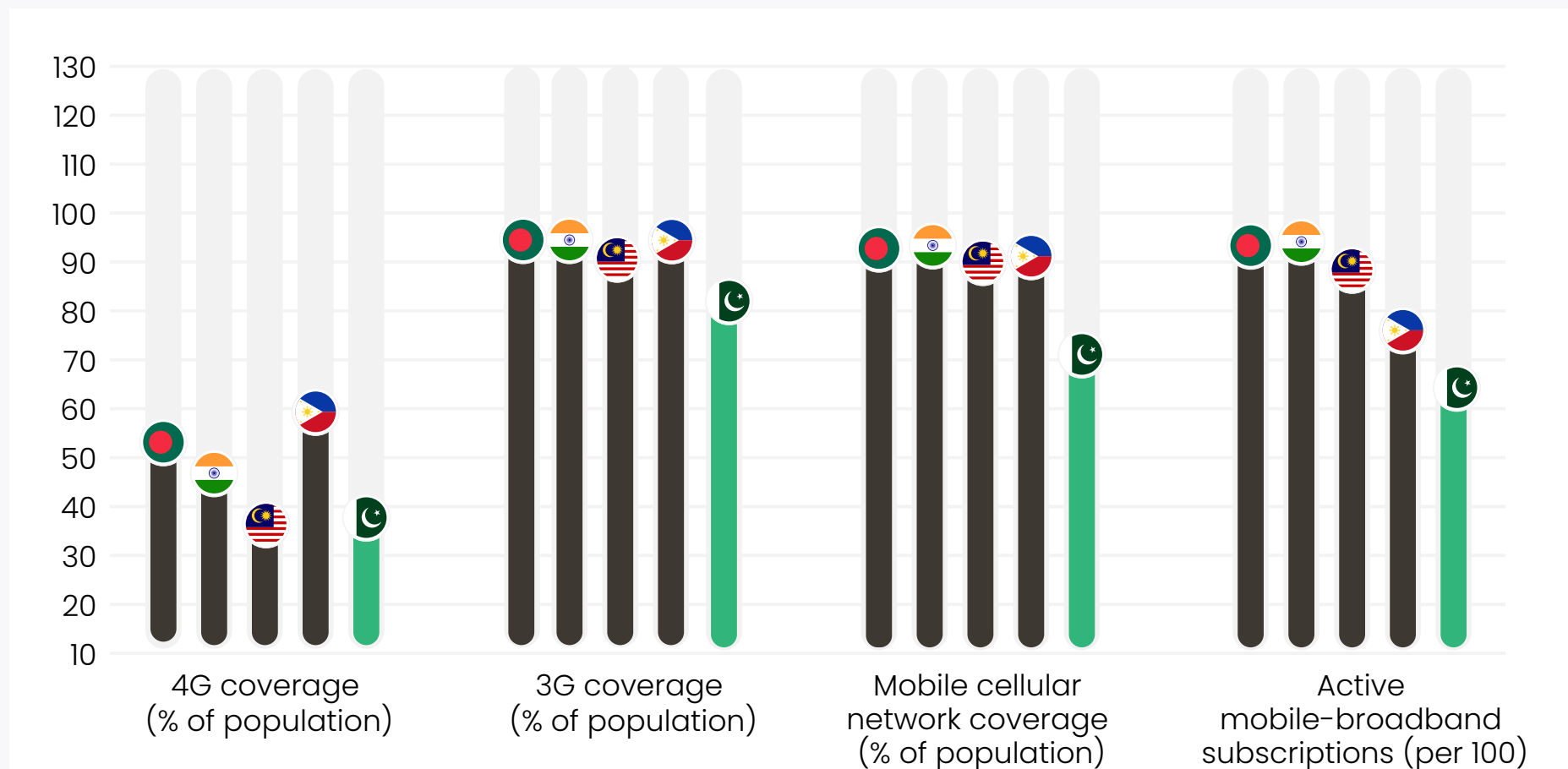
Source: ITU World Telecommunications/ICT Indicators Database, 2021

Fixed Broadband Basket Price (% of Gross National Income)

2.6 3.2 2.2 7.9 11.2

Source: ITU World Telecommunications/ICT Indicators Database, 2021

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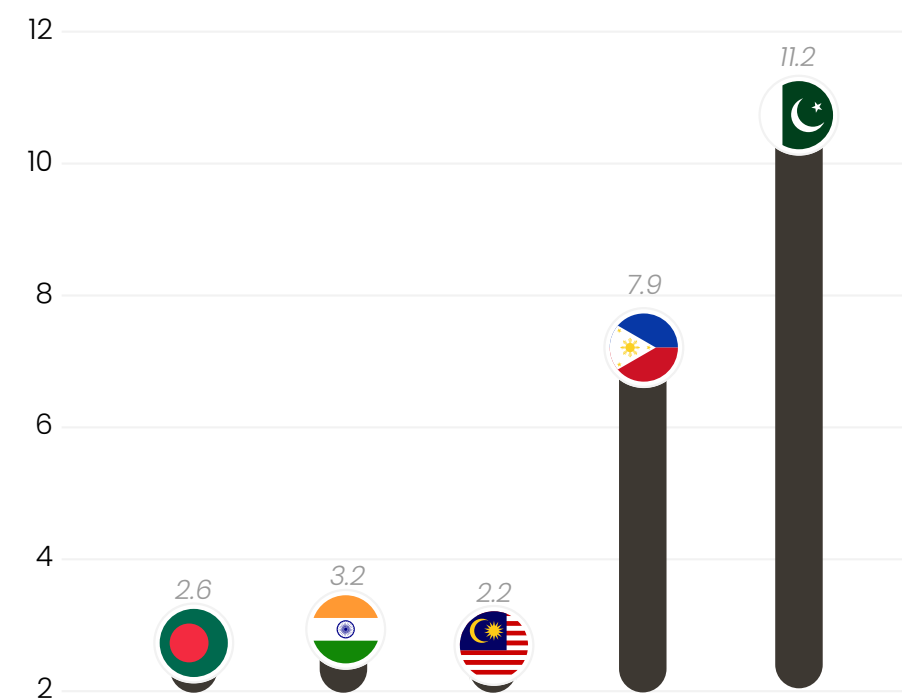
Global Service Location Index Benchmarking

The Kearney GSLI Survey assesses countries' capacity to deliver services across several different metrics.. Here we present a few variables affecting the IT industry: Financial attractiveness, people skills and availability, business environment and digital resonance. Digital resonance refers to four factors: digital skills, legal adaptability, corporate activity and outputs.

- The scores are based on responses to Kearney surveys and other industry questionnaires over the past five years.
- Pakistan ranks at **31st** in GSLI and **52nd** in digital resonance

Global Rankings: GSLI and Digital Resonance

Country	GSLI	Digital Resonance
India	1	17
Malaysia	3	21
Bangladesh	9	35
Philippines	31	52
Pakistan	33	56

Source: Kearney Global Services Location Index, 2021

Global Services Location Index

Source: Kearney Global Services Location Index, 2021

Digital Resonance

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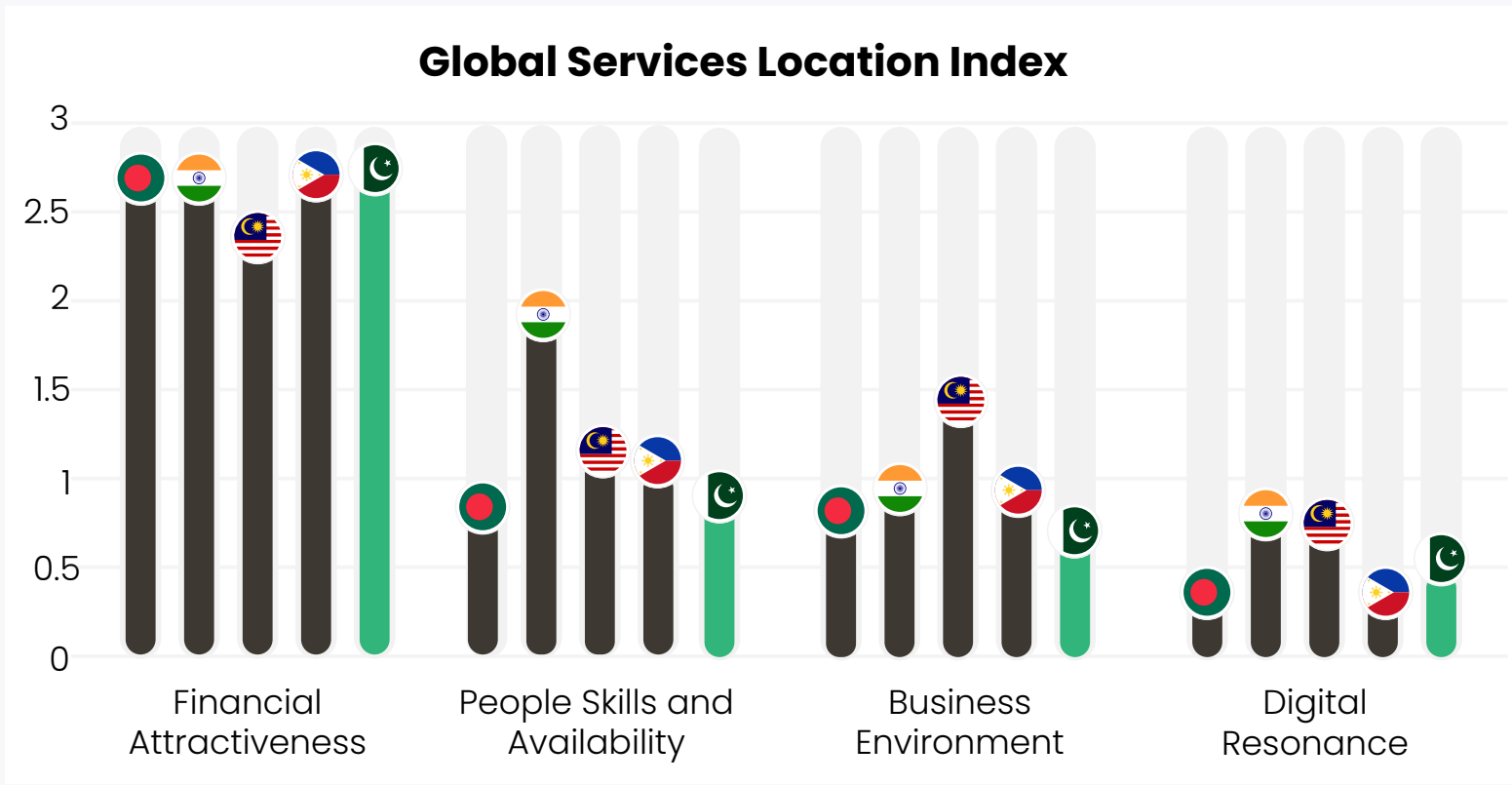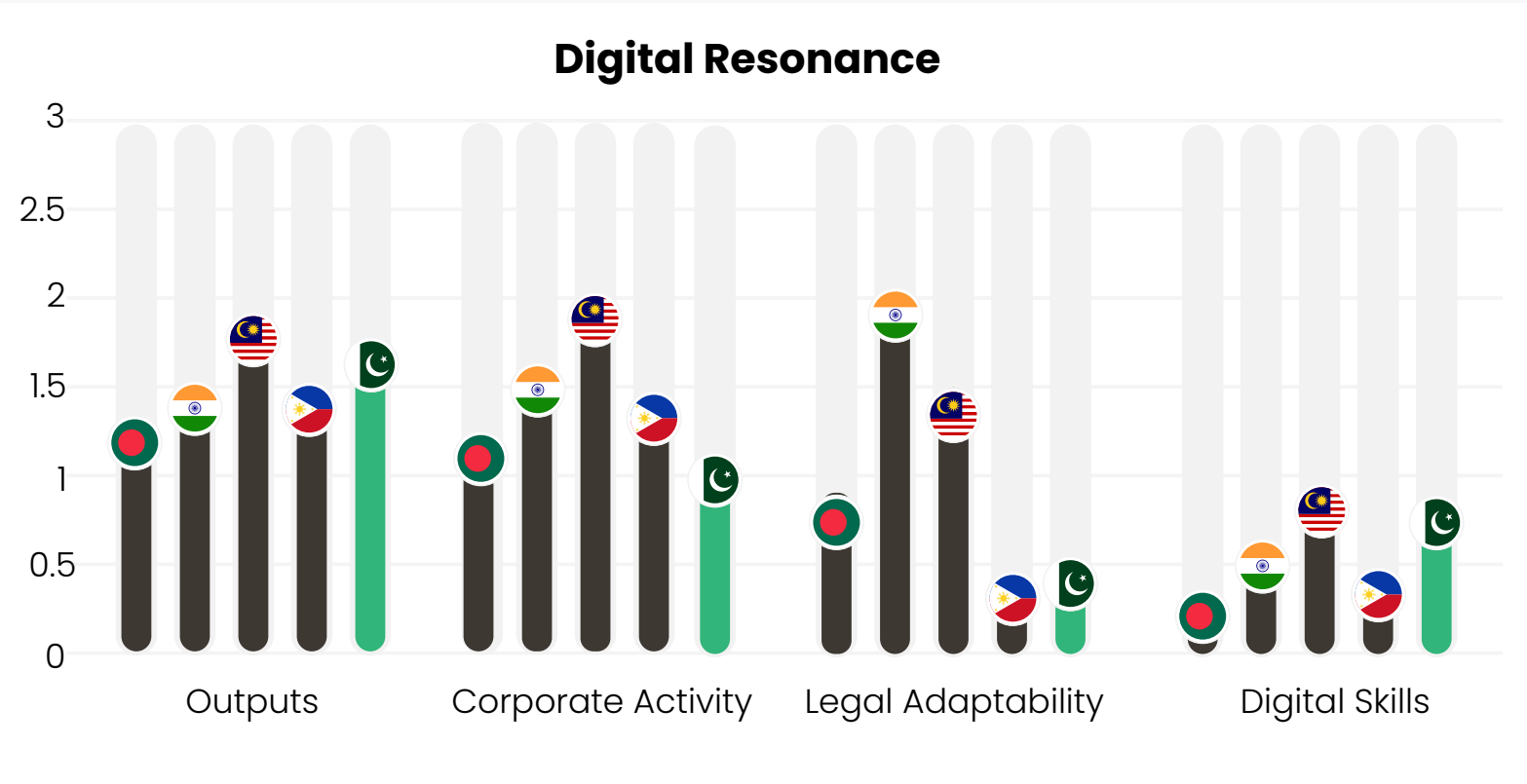
Textile exports, billion USD

- Growth in the textile sector has **stagnated**

- Pakistan has recorded positive growth but **small volume of textile exports** globally

  - Bangladesh's textile export volume is still twice as large as Pakistan
  - India's textile export volume is three times as large as Pakistan

Textile exports, billion USD

	Bangladesh	India	Malaysia	Philippines	Pakistan
2010	16.75	27.10	2.78	1.26	11.60
Growth	118%	59.1%	4.4%	–50.5%	13.1%
2015	28.33	37.16	3.07	1.66	12.90
Growth	69%	37%	10%	32%	11%
2020	27.95	35.49	3.35	1.15	13.60
Growth	–1%	–4%	9%	–31%	5%

Source: World Development Indicators, 2022

Textile exports, 5-year growth trend

Malaysia, 9.1%
Pakistan, 5.4%
Bangladesh, –1.3%
India, –4.5%

Philippines, –30.7%

● Bangladesh   ● India   ● Malaysia   ● Philippines   ● Pakistan

Source: World Development Indicators, 2022

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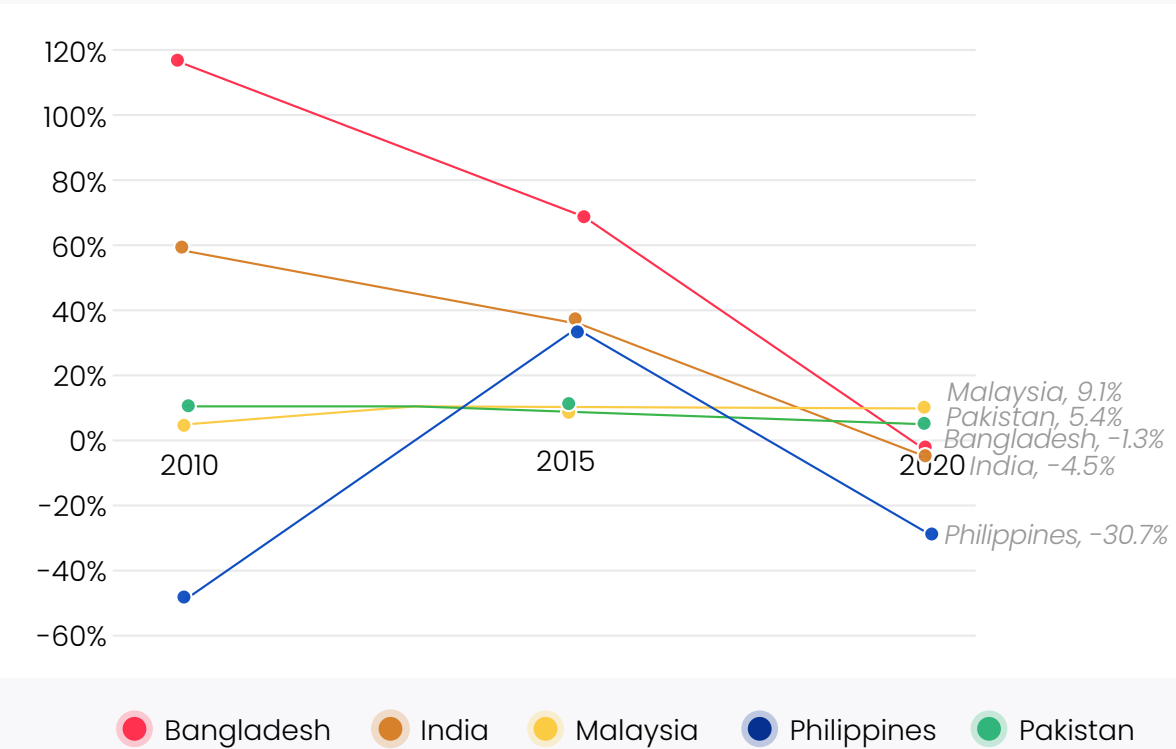
IT Exports

- Pakistan has emerged as a **rapidly growing market**
  - Highest 5-year export growth
  - Highest year-on-year export growth
  - Only country to continue growth momentum despite pandemic 2020

IT exports, billion USD

	🇧🇩	🇮🇳	🇲🇾	🇵🇭	🇵🇰
2011	0.46	62.09	2.42	2.77	0.44
2016	0.48	76.54	2.58	5.49	0.87
Growth	5%	23%	6%	98%	98%
2021	0.58	133.70	3.38	6.30	2.48
Growth	21%	75%	31%	15%	184%

IT Exports, 5-Year Growth Trend

Pakistan, 184%
India, 75%
Malaysia, 31%
Bangladesh, 21%
Philippines, 15%

IT Exports, Annual Growth Trend

Pakistan, 44.3%
Bangladesh, 42.7%
India, 34.4%
Philippines, 12.3%
Malaysia, 5.8%

● Bangladesh ● India ● Malaysia ● Philippines ● Pakistan

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Year On Year Growth of IT Exports

- Pakistan's YoY growth of ICT exports was the **highest in the region** since 2017
- Sharp, steady increase since 2015

External factors contributing to exports increase since 2014:
- **2014:** End of war on terror and improvement in law and order situation
- **2017:** Digital Policy 2017 laid the roadmap for the industry
- **2020:** IT/Telecom declared as essential services during Covid-19 pandemic
- **2021:** Cash reward announced against exports growth
- **2022:** PM IT Package announced (not yet implemented)
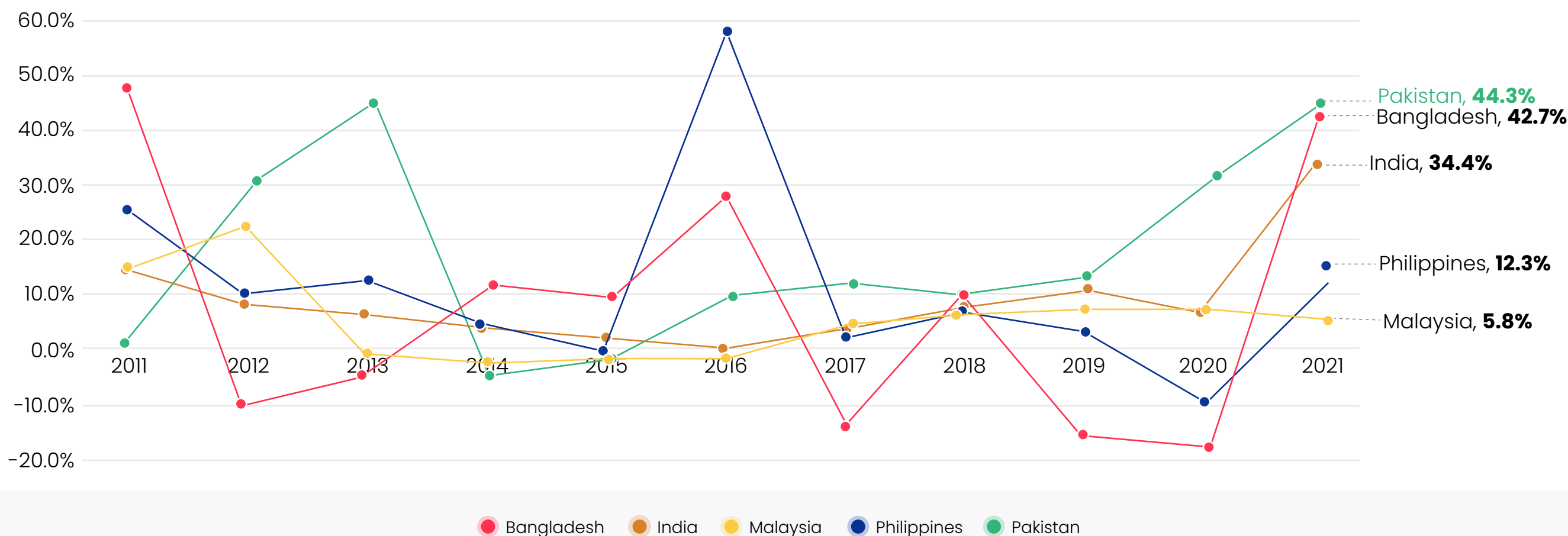
Pakistan, **44.3%**
Bangladesh, **42.7%**
India, **34.4%**
Philippines, **12.3%**
Malaysia, **5.8%**

Bangladesh India Malaysia Philippines Pakistan

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Comparing Pakistan's IT vs Textile Exports

- The growth pattern in IT Industry is growing and **greater than that of textile Industry**
- Reached **USD 2.1 billion** IT exports in 2021, projected USD 2.6 billion IT exports in 2022
- IT exports increasing at a fast pace

IT vs Textile Exports, Annual Growth Trend
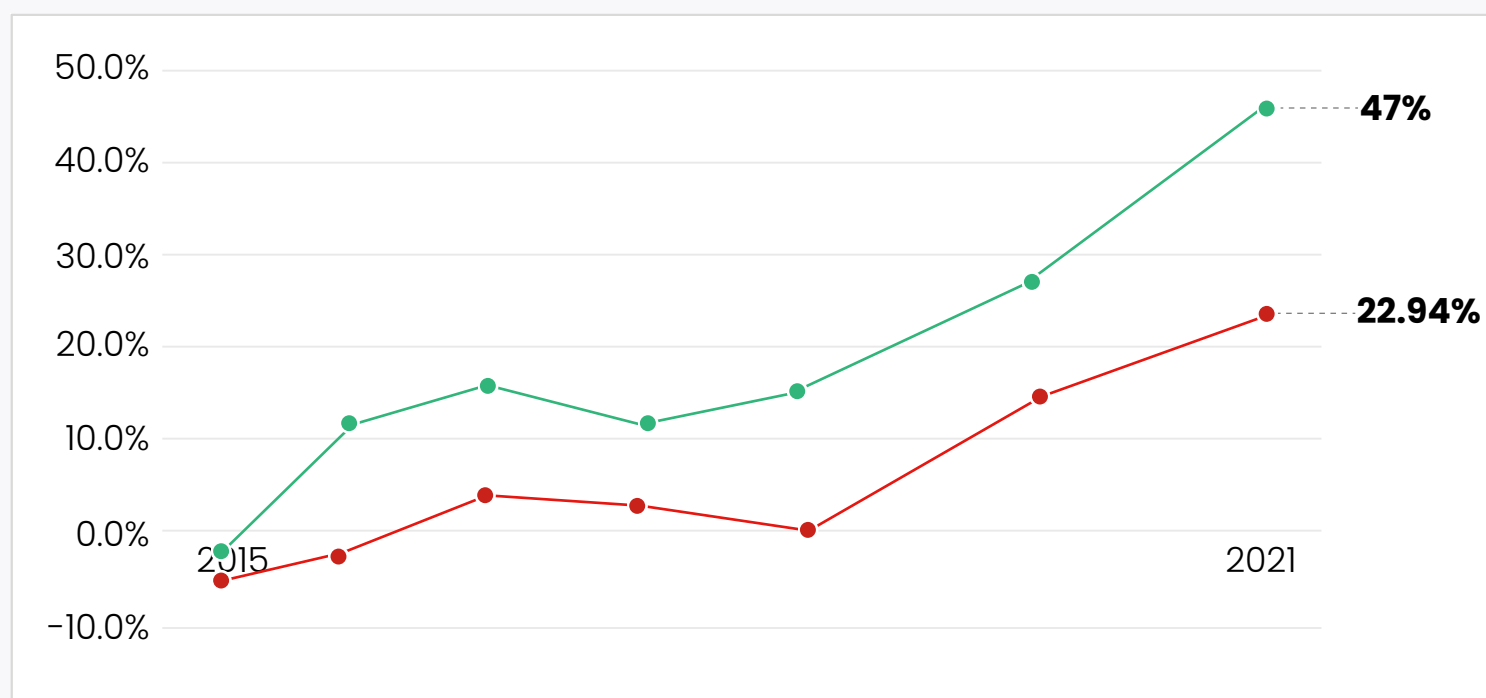
Textile Exports Growth ● IT Exports Growth ●

Source: WITS Database, World Bank Group

IT vs Textile Exports, 5-Year Growth Trend
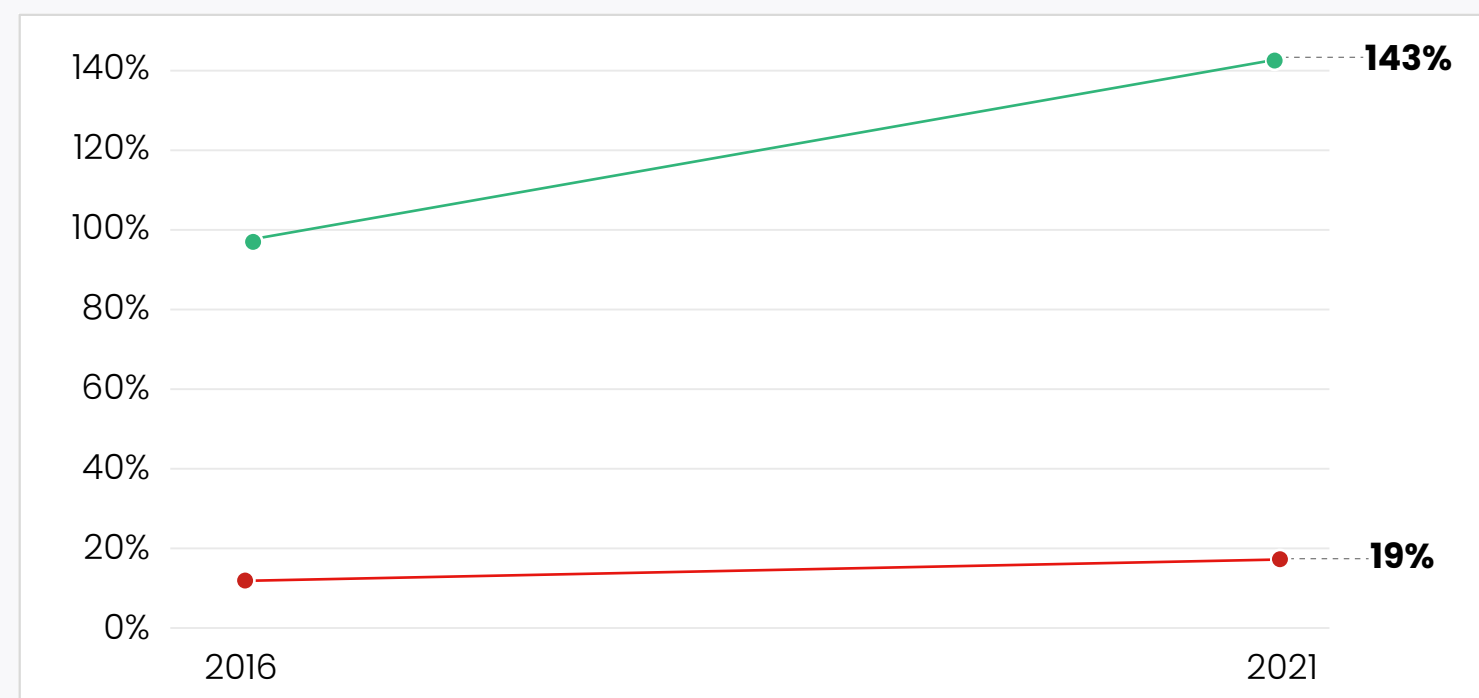
Textile Exports Growth ● IT Exports Growth ●

Source: WITS Database, World Bank Group

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Comparing Pakistan's IT & Textile Policies

Textile Support Policies

- Drawback for local taxes and levies based on export increments

- Under Export Refinance Scheme, mark-up was reduced from 9.4% to 7.5% in 2014

- Expedited sales tax refund claims processing

- Vocational training programs through PSDP

- Duty free import of machinery under Textiles Policy 2009-14

- Tariff structure review for entire supply chain

- Subsidized cost of electricity and gas

- Technology Upgradation Fund Support Scheme: govt. provides up to 20% cost of new plant and machinery

- Long Term Financing Facility (LTFF) at 5% till 2025. Enhancement of LTFF funds by PKR 100 mn per annum

- Export Financing Scheme (EFS) rates at 3% till 2025

IT Support Policies

- Tax exemption scheme **replaced** with controversial tax credit initiative.

- **No duty free imports** or other concessions for IT sector.

- Cash reward announced but **not yet distributed**

- **No grants or subsidies** for tech startups

- **No curriculum revision** in line with industry needs

- Funding from HEC and IGNITE oriented towards academia but **little to no support for industry at large**

- Primitive intellectual property rights with **little to no enforcement**

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IT Support Policies & Success Stories

01 →	02 →	03 →	04 →	05 →
Fiscal Policies	**Monetary Policies**	**Innovation Policies**	**Human Capital Policies**	**Investment Climate Policies**

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Overview: Number of Support Policies Across Countries

Fiscal Policies

Monetary Policies

Innovation Policies

Human Capital Policies

Investment Climate Policies
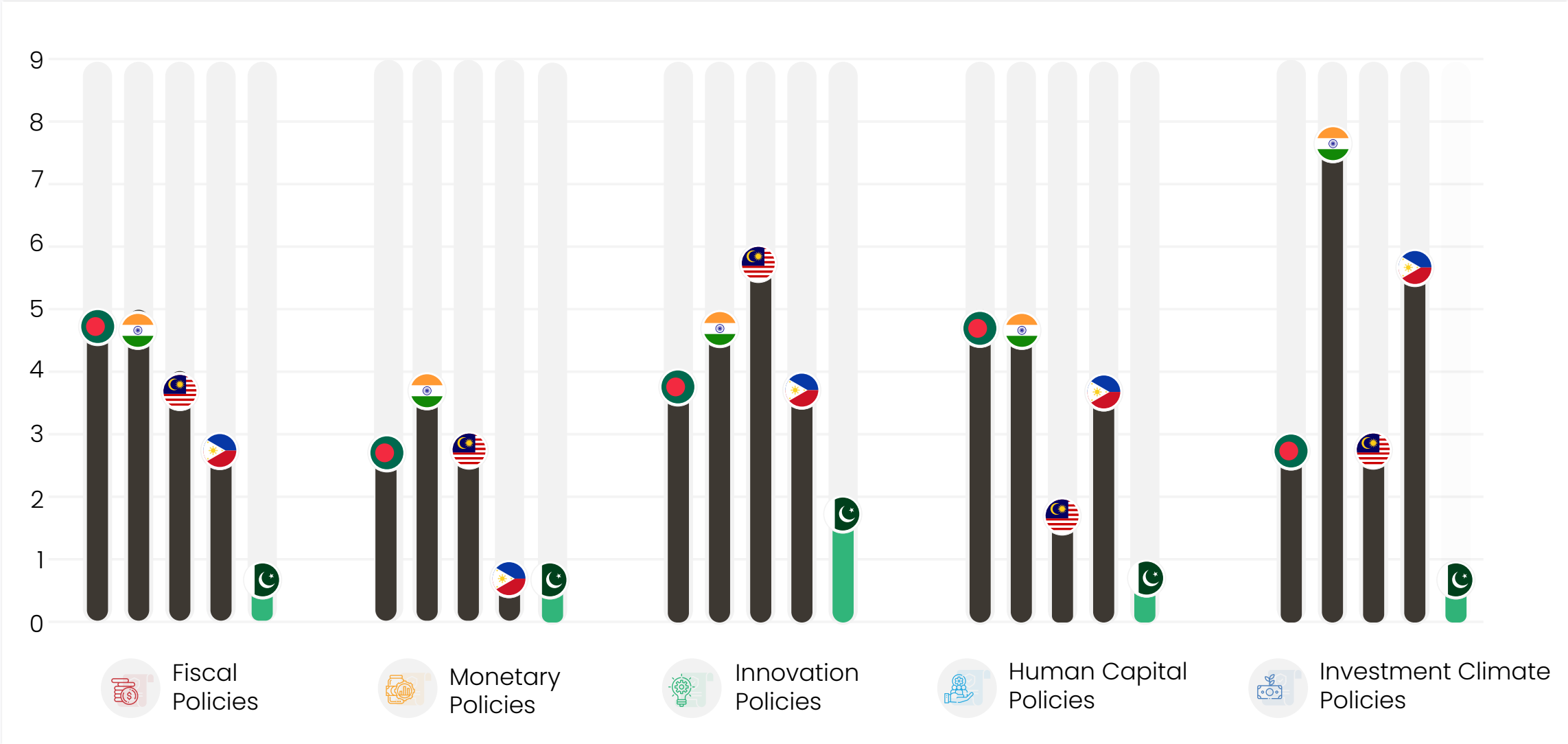
Country	Number of IT Support Policies
India	27
Malaysia	20
Bangladesh	20
Philippines	18
Pakistan	6

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Existing Policy Support in Leading IT Economies

Existing Policy Overview for IT Economies		Bangladesh	India	Malaysia	Philippines	Pakistan
Fiscal Policies	Direct Tax Waivers	✓	✓	✓	✓	!
	Indirect Tax Waivers	✓	✓	✓	✓	✗
Monetary Policies	Subsidies	✓	✓	✗	✗	✗
	Cash Rewards	✗	✗	✗	✗	!
	Grants and Financial Support	✓	✓	✓	✓	!
Innovation Policies	Research and Development	✓	✓	✓	✓	✗
	Intellectual Property Rights	✓	✓	✓	✓	✗
	Incubation Services and Facilitation	✓	✓	✓	✓	✓
Human Capital Policies	IT focused Educational Policies & Curriculum	✓	✗	✓	✓	✗
	Facilitating Employment Creation and Attracting Talent	✓	✓	✓	✓	✗
	Training & Capacity Building Initiatives	✓	✓	✓	✓	✓
Investment Climate Policies	Single Window Corridors	!	✓	✓	✓	!
	Cross Border Trade Facilitation	✓	✓	✓	✓	✗
	Marketing & Branding	✓	✓	✓	✓	✓

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Fiscal Policies

Direct Tax Waivers
○ Tax exemptions
○ Tax credits

Indirect Tax Waivers
○ Favorable treatments in amortization and depreciation
○ Incentivize adoption of technology
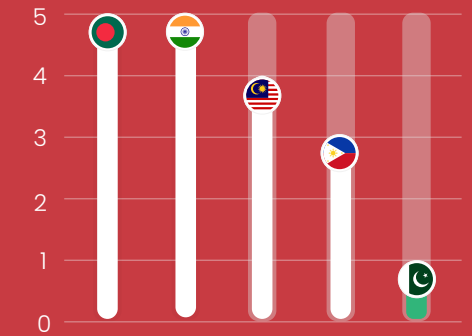
Bangladesh
- Income Tax Exemption
- VAT exemption on utilities in hi-tech parks
- Accelerated depreciation
- Import duty exemption
- Tariff refund on raw materials

India
- 100% income tax exemption for 10 years
- 50% income tax exemption thereafter
- Tax rebates in IT parks
- Duty-free IT imports
- WHT exemption

Malaysia
- 5-10 year income tax exemption
- Investment tax allowance Import duty exemption
- 60% reinvestment allowance

Philippines
- Income tax exemption for 2 years
- Preferential income tax thereafter
- Duty-free IT imports

Pakistan
- Tax credit scheme

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Fiscal Policies: Success Stories

India

- Under[1], IT companies are **exempt from income tax**:
  -› **100%** of profits for the first five years of operations
  -› **50%** for the next five years
  -› **50%** for a further five years (depending on investment of the tax benefits back into business)

- Under India Customs Tariff 2021[2], IT related imports are **exempt from custom duty**

- Software imports are also **exempt from withholding tax**[3] since 2003

Vietnam

- Support for IT firms in areas with difficult socio-economic conditions[4]:
  -› Income from the transfer of hi-technology in such areas is tax-exempt
  -› Preferential tax rates may be extended to 15 years
  -› Possibility of **land rental exemption** for up to 15 years or entire project duration (subject to govt. approval)

- **Import duty exemptions** are applied to:
  -› Imported goods that are used to build fixed assets
  -› Imported raw materials and supplies that have not been manufactured locally within a five-year period

Malaysia

- **Pioneer Status (PS)**[5]
  -› **Tax exemption** for companies participating in promoted activities or producing promoted products
  -› Exempted for 5 to 10 years

- **Investment tax allowance (ITA)**[6]
  -› Granted on the basis of capital expenditure for promoted activities
  -› Valid for 5 to 10 years
  -› Unutilized ITA can be carried forward until fully utilized

1. SEZ, Govt of India. Available at http://sezindia.nic.in/cms/facilities-and-incentives.php
2. Central Board of Indirect Taxes and Customs. Available at https://www.cbic.gov.in/htdocs-cbec/customs/cst2021-310620/csgen-expemtns-idx-310620
3. Income Tax Appellate Tribunal, 2003. Available at https://economictimes.indiatimes.com/tax-law/direct-tax-law/no-withholding-tax-on-software-imports/articleshow/277365.cms
4. Vietnam Briefing. Available at https://www.vietnam-briefing.com/news/vietnam-unveils-new-criteria-hi-tech-enterprises-decision-10.html/
5. Malaysian Investment Development Authority (MIDA). Available at https://www.mida.gov.my/setting-up-content/incentives/#:~:text=(i)%20Pioneer%20Status,30%25%20of%20its%20capacity).
6. Malaysian Investment Development Authority (MIDA). Available at https://www.mida.gov.my/setting-up-content/incentives/#:~:text=(i)%20Pioneer%20Status,30%25%20of%20its%20capacity).

Monetary Policies

Subsidies
- Production subsidies
- Raw material subsidies
- Subsidized rents and utilities

Grants
- Mission-oriented grants

Cash Rewards
- On export volume
- Use of local raw materials
- Employment creation
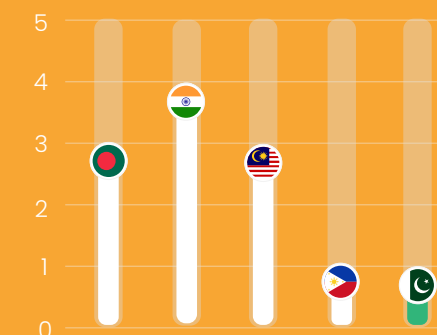
Bangladesh
- VAT exemption on rent and utilities
- 10% cash reward on IT exports
- BDT 500 crore allocated for startup support

India
- Monetary rebate on job creation
- Capital gains tax exemption for startups
- Stimulus package for IT industry
- India BPO Scheme

Malaysia
- Grant for preparing and submitting bids for overseas projects
- Reimbursable grant trade promotion activities overseas
- Reimbursable grant for Malaysian IT firms undertaking feasibility studies

Philippines
- Startup Research Grant Program

Pakistan
- 5% cash reward on growth of IT exports

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Monetary Policies: Case in Point

India
Setting example for reducing cost of doing business

For companies creating **333 jobs per acre**, cost of land is subsidized[7] by GoI

Startups are exempted[8] from **capital gains tax**

Stimulus package announced for IT industry to counteract[9] effects of COVID-19

Startup Seed Fund worth INR 1,000 crore announced as part of Startup India Initiative[10]

India BPO Promotion Scheme (IBPS)
Incentivize[11] BPO operations across India for the creation of employment opportunities for the youth

New businesses eligible for 5% financial assistance for setting up BPOs as a consortium with local entrepreneurs.

7. Information Technology and Communications Department, GAP, India. Available at http://www.sdnbd.org/sdi/issues/IT-computer/policy/india-ictpolicy2002-05.pdf
8. Startup India. Available at https://www.startupindia.gov.in/content/sih/en/about_us/action-plan.html
9. Ministry of Finance, Government of India. Available at https://economictimes.indiatimes.com/news/company/corporate-trends/india-inc-cheers-stimulus-package-2-0-says-it-will-impart-relief-to-businesses/articleshow/75724387.cms?from=mdr
10. Ministry of Electronics and IT, Government of India. Available at https://economictimes.indiatimes.com/tech/startups/pm-narendra-modi-announces-rs-1000-crore-startup-india-seed-fund/articleshow/80304710.cms#:~:text=NEW%20DELHI%3A%20Prime%20Minister%20Narendra,raise%20debt%20capital%20going%20ahead.
11. Ministry of Electronics and IT, Government of India. Available at http://164.100.47.193/Refinput/New_Reference_Notes/English/India BPO Promotion Scheme.pdf

Monetary Policies: Case in Point

Indonesia

- IFC PENSA Programs[12]
- **Business Enabling Environment Program**

  -> **Remove potential legislative and policy obstacles** to investment and growth for SMEs in Indonesia.

  -> Pilot program working with five regional municipalities to **reduce the time it takes to start a business** - on average registration presently takes 151 days.

- **Access to Finance Program**

  -> Developing a **network of "brokers"** that will link SMEs and banks.

  -> Has seen **US$4.5 million of loans approved** and US$6.2 million being processed in 1 year

  -> **Credit facility** of up to **US$100 million** created for commercial banks for lending to SMEs.

  -> Workshops for more than 200 businesswomen on financing options.

Malaysia

- **50%** reimbursable grant for the costs of preparing and submitting **bids for overseas projects**[13]

- **50%** reimbursable grant for undertaking **trade promotion activities** overseas, such as trade fairs, trade missions, opening up of representative offices overseas, and market research

- **100% reimbursable grant** for Malaysian IT firms undertaking feasibility studies

12. World Bank Group. Available at https://documents1.worldbank.org/curated/en/146281468001157434/pdf/92427-BRI-2006Apr5-Indonesia-IFC-PENSA-PUBLIC-Box-385367B.pdf
13. Malaysia External Trade Development Corporation (MATRADE). Available at https://www.matrade.gov.my/en/malaysian-exporters/services-for-exporters/exporters-development/services-export-fund-sef

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Innovation Policies

Research and Development
○ Tie-in to tax exemption/credits

Incubation services & facilitation
○ Accelerator and incubator programs for early-stage businesses
○ Tech parks/science parks

Intellectual property rights
○ Patent boxes
○ Copyright law and enforcement
○ Intellectual property (IP) incentives
○ Data policies for addressing security issues, including data localization requirements & cross-border data flow policies
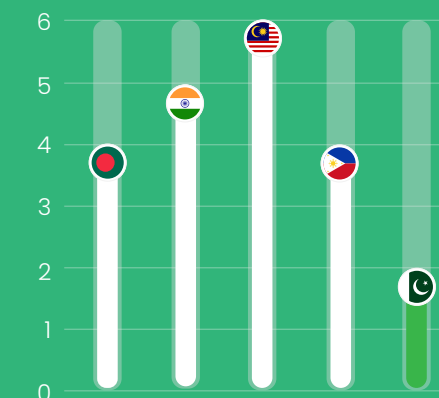
Bangladesh
- Bangabandhu Innovation Grant
- Startup Bangladesh Limited
- Intellectual Labor Law Digital Security Act 2018

India
- NewGen IEDC
- Multiplier Grants Scheme (MGS)
- Startup India
- SAMRIDH scheme
- National Intellectual Property Rights (IPR) Policy
- Support for International Patent Protection in E&IT (SIP-EIT)

Malaysia
- MESTECC R&D Fund
- International Collaboration Fund (ICF)
- Smart Challenge Fund Digital Society Research Grant
- Malaysian Intellectual Property Corporation (MyIPO)
- Trademarks Act 2019

Philippines
- Startup Research Grant Program
- Kapatid Mentor Me Program
- Innovative Startup Act
- Technology Business Incubation (TBI) centres

Pakistan
- Several government sponsored initiatives such as Plan9, NICs, ORICs have been implemented

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Innovation Policies: Case in Point

Innovation Under Digital India: "Power to Empower"

#startupindia

- Startup India launched by Department for Promotion of Industry and Internal Trade (DPIIT) with support from the Department of Science and Technology (DST) and Ministry of Education
  - -> Rajasthan's Techno Hub provides **free-of-cost infrastructure** for startups and entrepreneurs
  - -> T-Hub in Hyderabad is looking to expand to 300K sq. ft. with its multi-phase plan
  - -> KTIZ campus in Kerala can accommodate up to 1,000 startups

NewGen IEDC
Innovation & Entrepreneurship Development Centre

- NewGen IEDC launched by the National Science and Technology Entrepreneurship Development Board under the Department of Science and Technology, Government of India.
- Aims to inculcate the spirit of innovation and entrepreneurship among youth.
- Supports and encourages entrepreneurship through guidance, mentorship, and support.

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

- National Intellectual Property Rights (IPR) Policy introduced in 2016.
  - -> Use IT and technology in **e-filing of applications**;
  - -> Delivery of certificates of grant/registration of patent, trademark in **digital format;**
  - -> Reduced number of trademarks forms;
  - -> Use of video conferencing for hearing of IP applications;
  - -> Created expedited examination procedures;
  - -> Spread awareness on IPR.

Multiplier Grants Scheme (MGS)

- Encourages collaborative Research & Development (R&D) between industry and academics/institutions for the development of products and package.
- If the industry supports the R&D of products that can be commercialized at the institutional level, the government shall provide financial support which will be **up to twice the amount** provided by industry.

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Innovation Policies: Case in Point

Innovation in Philippines

Startup Research Grant Program

Early-stage startup support for product R&D and market validation studies[21] announced by Department of Science and Technology (DOST)

Kapatid Mentor Me Program

A three-step initiative by the Department of Trade & Industry (DTI) inclusive of mentoring, SSFs and IB schemes for MSEs[22].

Innovative Startup Act

An interdepartmental venture by Department of Information and Communications Technology (DICT), DOST and DTI[23] for startups to access subsidies, grants and visas (provides government support for budding talent in the local startup community by giving entrepreneurs access to a Startup Venture Fund, travel grants, subsidies, and visas.

- *Intellectual Property Office* of the Philippines established[24] in 1998

- National Committee on Intellectual Property rights created in 2008

- In 2012, *IPOPHL* streamlined[25] the end-to-end processing of IP applications from filing to registration, including publications, printing of certificates andpost-registration/post-granting, known as the Industrial Property Automation System (IPAS)

21. Department of Science and Technology (DOST), Government of Philippines, 2021. Available at https://www.dost.gov.ph/knowledge-resources/news/72-2021-news/2166-innovative-startup-act-a-windfall-of-gains-for-filipino-entreps.html
22. Department of Trade & Industry (DTI), Government of Philippines, 2020. Available at https://www.dti.gov.ph/negosyo/kapatid-mentor-me-project/
23. Department of Science and Technology (DOST), Government of Philippines, 2021. Available at https://www.manilatimes.net/2021/08/05/public-square/dost-pchrd-supports-3-filipino-startups-for-health-rd/1809676#:~:text=The%20Startup%20Research%20Grant%2C%20launched,in%20the%20Philippine%20startup%20industry.
24. https://www.aseanip.org/Resources/ASEAN-IP-Offices-Details/Philippines#:~:text=The%20Intellectual%20Property%20Office%20of%20the%20Philippines&text=It%20was%20created%20by%20Republic,effect%20on%20January%201%2C%201998.
25. World Intellectual Property Organization (WIPO), 2019. Available at https://www3.wipo.int/confluence/display/wipoimd/WIPO++IPAS

Comparative Analysis

Innovation Policies: Case in Point

MyDIGITAL: Roadmap to Malaysia's Innovative Digitalisation

Joint Venture by Malaysian Investment Development Authority (MIDA) & Malaysia Digital Economy Corporation (MDEC)
State-funded initiative open to tech businesses contributing to economic growth. The Fund co-funds projects up to RM 3,000,000, or max. 90% of total project cost.

International Collaboration Fund (ICF)

Grant provided by the Government for international joint R&D projects between researchers from Malaysia26 and other countries to encourage and promote co-operation in science, technology and innovation through joint research and development activities for mutual benefit.

Smart Challenge Fund

Government's initiatives which is open to businesses and researchers interested in competing for funding opportunities in prioritised sectors27 (new technologies, processes, products)

Malaysian Intellectual Property Corporation (MyIPO)

Affords preliminary legal protection of intellectual property28 Pre-requisite for most statutory protections except Copyright (receives automatic protection upon publication)

Trademarks Act 2019

Allows enforcement officers to arrest29 persons suspected of infringement and search for and seize infringing goods. Owners of unregistered trademarks can also bring action against traders who misrepresent their goods as being similar to or as being produced by the owner to take advantage of the latter's established goodwill and reputation.

26. Ministry of Energy, Science, Technology, Environment and Climate Change, GoM, 2019. Available at https://www.dost.gov.ph/knowledge-resources/news/72-2021-news/2166-innovative-startup-act-a-windfall-of-gains-for-filipino-entreps.html
27. Ministry of Science, Technology and Innovation (MOSTI), 2017. Available at https://central.mymagic.my/resource/2850?brand=
28. Intellectual Property Corporation of Malaysia, 2019. Available at https://www.myipo.gov.my/en/home/
29. Intellectual Property Corporation of Malaysia, 2019. Available at https://www.myipo.gov.my/wp-content/uploads/2019/12/ACT-815-TRADEMARKS-ACT-201.pdf

Comparative Analysis

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Human Capital Policies

Educational policies & curriculum

○ Expansion of STEM programmes
○ Technological knowledge transfer

Training & capacity building

○ IT oriented short courses and diplomas
○ Training institutes for industry-specific skills
○ Industry associations or skills councils

Employment creation

○ Local employment quotas

Bangladesh
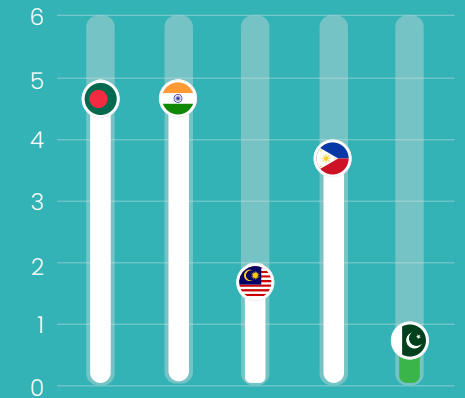
- Skill Enhancement Training Program
- Industry Association Skills Training
- Fast Track Future Leader (FTFL) Training
- Top-up IT Training
- Foundation Skills
- Online Outsourcing Training Programs

India

- FutureSkills Prime
- eSkills India
- Recognition of Prior Learning (RPL) for IT
- BPO Scheme has created 200,000 jobs in small towns
- Digital India targets creating 65 million jobs

Malaysia

- Digital Skill Training Directory (DSTD)
- eRezeki program, launched by MDEC

Philippines

- TESDA Online Program (TOP)
- Classmate PC program, sponsored by Intel
- Digital literacy training for teachers
- Technology-Assisted Work Immersion Delivery (Oplan Tawid)

Pakistan

- IT skills courses under NAVTTC and TEVTA

Comparative Analysis

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Human Capital Policies: Case in Point

India: Meeting Talent Needs for 2024

NMEICT[30]

National Mission on Education through Information and Communication Technology (NMEICT) launched as **centrally Sponsored Scheme** to leverage the potential of ICT, in teaching and learning

Dedicated department for curriculum and trainings

PMKVY[31]

Flagship Initiative of Ministry of Skill Development & Entrepreneurship (MSDE)

Skill Certification Scheme assessed and certified under Recognition of Prior Learning (RPL)

IT for Masses[32]

Focus on digital literacy, IT skills training and entrepreneurship training for masses

550,000 women, 73,405 senior citizens and 37,310 scheduled tribes trained

FutureSkills Prime[33]

Launched in Nov 2021 under the Ministry of Electronics and Information Technology (MeitY) and NASSCOM

Globally competitive curriculums, designed with the industry, and approved by the government.

100% online learning with no geographical barriers

PMGDISHA[34]

Targets digital literacy for **6 crore individuals** in rural states

Focus on marginalized communities

30. Ministry of Education, Government of India, 2020. Available at https://www.digitalindia.gov.in/di-initiatives
31. Ministry of Skill Development & Entrepreneurship (MSDE), Government of India, 2015. Available at http://www.pmkvyofficial.org/Index.aspx
32. Ministry of Electronics and IT, Government of India, 2015. Available at https://www.meity.gov.in/content/it-masses
33. Ministry of Electronics and IT, Government of India, 2021. Available at https://futureskillsprime.in/
34. Government of India, 2017. Available at https://www.digitalindia.gov.in/di-initiatives

Comparative Analysis

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Human Capital Policies: Case in Point

Digital Bangladesh: Harnessing Talent

Top-up IT Training

Targets **science graduates** to train them for jobs in IT/ITES industry[35].

All major universities and training institutions are included in the program

BDSkills

Developed by the Bangladesh Computer Council and LICT[36]. Skills over **20,000 ITeS professionals and graduates** to meet global standards

Online Outsourcing Training Programs

Programs to carry out training and mentorship leading to online outsourcing for youth and women[37].

Targets training **23,000 women and youth** in different outsourcing skills

Fast Track Future Leader Training

Aims to to build **1,000 future leaders**[38], **30,000 direct jobs** and **120,000 indirect jobs** for the IT/ITeS Industry of Bangladesh.

Leveraging ICT (LICT) in collaboration with the IT/ITeS Industry selects trainees for FTFL program as per skill

Skill Enhancement Training Program

6,500 trained professionals readily employable competent workforce to be absorbed in the IT/ITeS sector by the industry

An initiative of Bangladesh Hi-Tech Park Authority

Industry Association Skills Training

Skills for Employment Investment Program (SEIP)

Government initiative towards transforming and developing **unskilled and semi-skilled** workforce into a productive workforce in priority sectors

35. Bangladesh Digital Skills, 2019. Available at https://www.bdskills.gov.bd/
36. Bangladesh Computer Council (BCC), Ministry of Posts, Telecommunications and Information Technology (MoPTIT), 2018. Available at https://www.bdskills.gov.bd/
37. Bangladesh Computer Council (BCC), Ministry of Posts, Telecommunications and Information Technology (MoPTIT), 2020. Available at https://bcc.portal.gov.bd/sites/default/files/files/bcc.portal.gov.bd/notices/d7b7b6be_5c6c_43ef_836d_448e7b524587/TOR AF S1.pdf
38. Giga Tech, 2021. Available at https://gigatechltd.com/fast-track-future-leader-ftfl-training-project/#:~:text=The%20initiative%20Fast%20Track%20Future,the%20IT%20and%20ITES%20companies.
39. Published in Daily Sun (2017). Available at https://www.daily-sun.com/post/268616/6500-receives-training-on-ICT-from-hitech-parks-
40. Skills for Employment Investment Program (SEIP), 2019. Available at https://seip-fd.gov.bd/

Comparative Analysis

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Human Capital Policies: Case in Point

Philippines: Starting at the Grass Roots

ICT skills trainings have been implemented at school level [41]

- The Bureau of Elementary Education partnered with Intel to implement the **Classmate PC program**[41], which provides personal computers to all elementary school students.

- The Bureau of Secondary Education sought to create computer laboratories in **100%** of the country's high schools

- The Bureau Alternative Learning System is digitizing its modules so mobile teachers have easier access to instruction materials to better meet the needs of learners outside the formal school system.

Training the Teachers

Philippine Department of Education launched a digital literacy program in 2008[42] to develop and validate **public school teachers**' **ICT skills** using Certiport® Internet and Computing Core Certification (IC³®)

Go Digital ASEAN

Courses[43] like **"Digital Tools for Job Seekers"**, **"Harnessing Social Media to Expand your Business"**, and **"Getting your Business Online"** have been integrated to **TESDA Online Program (TOP)**.

41. World Bank Education, Technology & Innovation: SABER-ICT Technical Paper Series (#15), 2016. Available at https://documents1.worldbank.org/curated/ar/344311488908487127/pdf/113217-NWP-PUBLIC-ADD-SERIES-Agencies-Philippines-SABER-ICTno15.pdf
42. Certiport, 2008. Available at https://www.certiport.com/portal/common/documentlibrary/Lapus_070708.pdf
43. Asia Foundation, 2021. Available at https://asiafoundation.org/emerging-issues/go-digital-asean/

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Investment Climate Policies

Ease of Doing Business

○ Single window corridors

Marketing & Branding

○ Creating an international identity as a tech destination

🇧🇩 Bangladesh
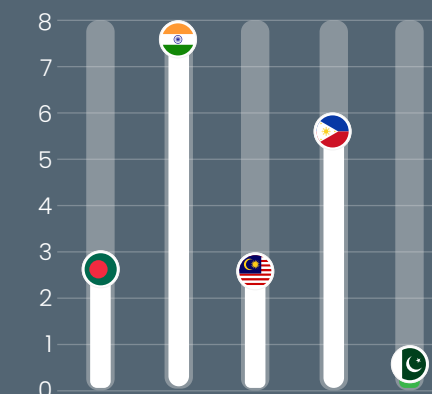
- National Single Window (NSW) announced
- Investment Incentives ICT Infrastructure & Ecosystem
- Cost Advantage
- Investment Policy
- Lax taxation
- No equity restriction
- Home to global brands

🇮🇳 India

- National Single Window System (NSWS) implemented
- Know Your Approvals (KYA) module PMJDY- National Mission on Financial Inclusion
- PayGov India
- OpenForge
- NREGAsoft
- Aadhar enables Payment System (AEPS)
- India BPO Promotion Scheme (IBPS)
- Digidhan Abhiyaan

🇲🇾 Malaysia

- National Single Window System (NSWS) established in 2009
- Reuse of recorded data
- Connects 30 permit issuing agencies, 50 authorities, 10 banks, 160 Customs stations

🇵🇭 Philippines

- National Single Window System (NSWS) launched in 2010
- Part of ASEAN Single Window (ASW) corridor
- Information Technology-Business Process Outsourcing (IT-BPO) Center of Excellence
- Global in-house centers (GICs)
- Data Protection and Privacy laws
- Tax breaks

🇵🇰 Pakistan

- National Single Window System (NSWS) implementation underway

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The Era of Single Window Corridors

India

- **National Single Window System (NSWS)** for investors to identify[48] and to apply for approvals as per requirements.

- **Know Your Approvals (KYA)** module supports information across 32 participating ministries and 16 states.

- Hosts applications for approvals from **21 Central Departments** and **14 State Governments**.

Malaysia

- **National Single Window (NSW)** for Trade Facilitation established in 2009[49] and led by the Ministry of Finance.

- Creates linkages between industry and relevant government departments. **Reuses recorded data** for time saving and simplified processes.

- Connected with **more than 30 Permit Issuing Agencies**, **50 authorities**, 10 banks, 160 Customs stations.

- Six core services: ePCO, ePermit, ePermitSTA, eManifest, eDeclare and ePayment

Philippines

- **National Single Window (NSW),** launched in 2010, allows stakeholders in trade[50] and transport to log information in a secure, **electronic single entry point** for import, export and transit related requirements.

- Part of the larger ASEAN Single Window (ASW)

48. Available at https://www.nsws.gov.in/
49. Available at http://www.dagangnet.com/trade-facilitation/national-single-window/
50. Available at https://asw.asean.org/index.php/nsw/philippines/philippines-general-information

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Digital India sells India's Infrastructural Capabilities

National Mission on Education through Information and Communication Technology (NMEICT)

MyGov

North East BPO Promotion Scheme (NEBPS)

Digidhan Abhiyaan

NREGAsoft

Aadhar enables Payment System (AEPS) India BPO Promotion Scheme (IBPS)

OpenForge

PMJDY- National Mission on Financial Inclusion

PayGov India

Digital India
Power To Empower

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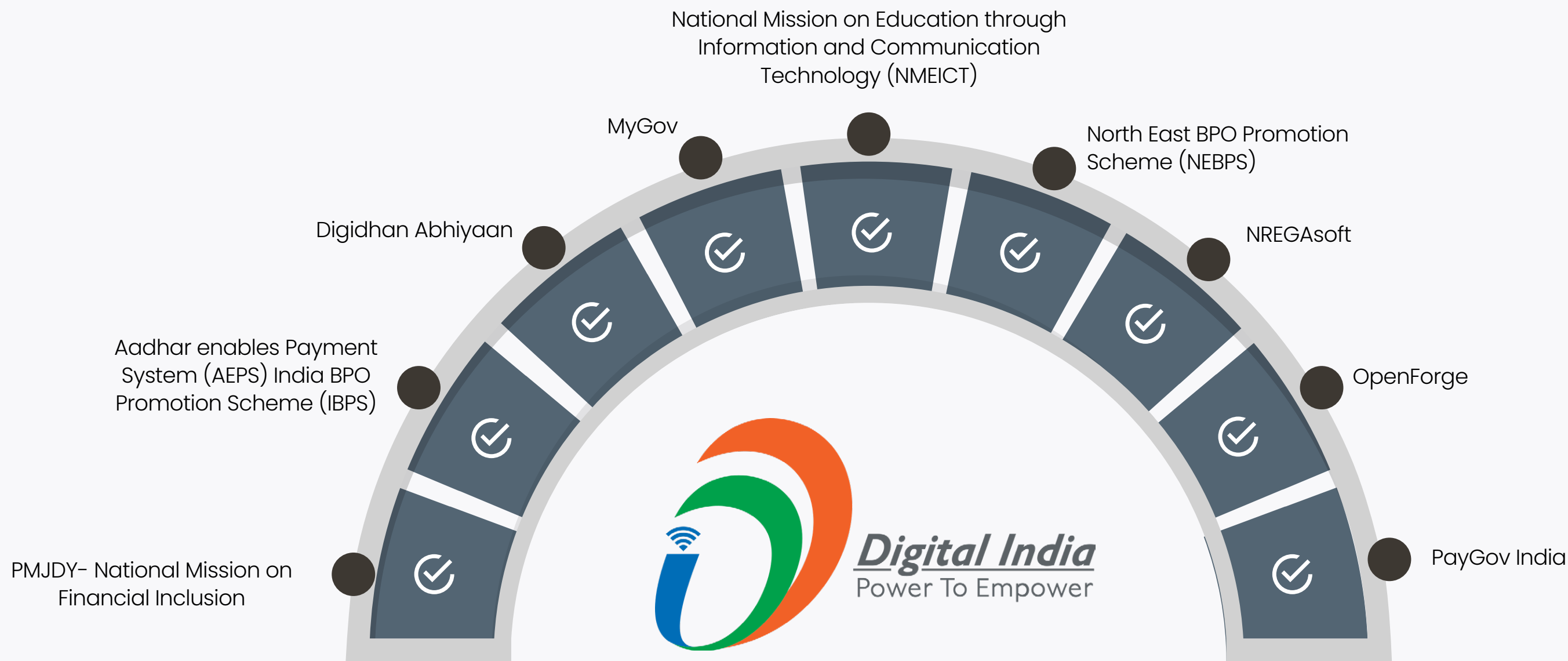
Digital Bangladesh: Lowest Cost Centre 🇧🇩

Investment Incentives

- ICT Infrastructure & Ecosystem
- Cost Advantage
- Talent in Bangladesh

Investment Policy

- Global Brands
- No taxes
- No equity restrictions
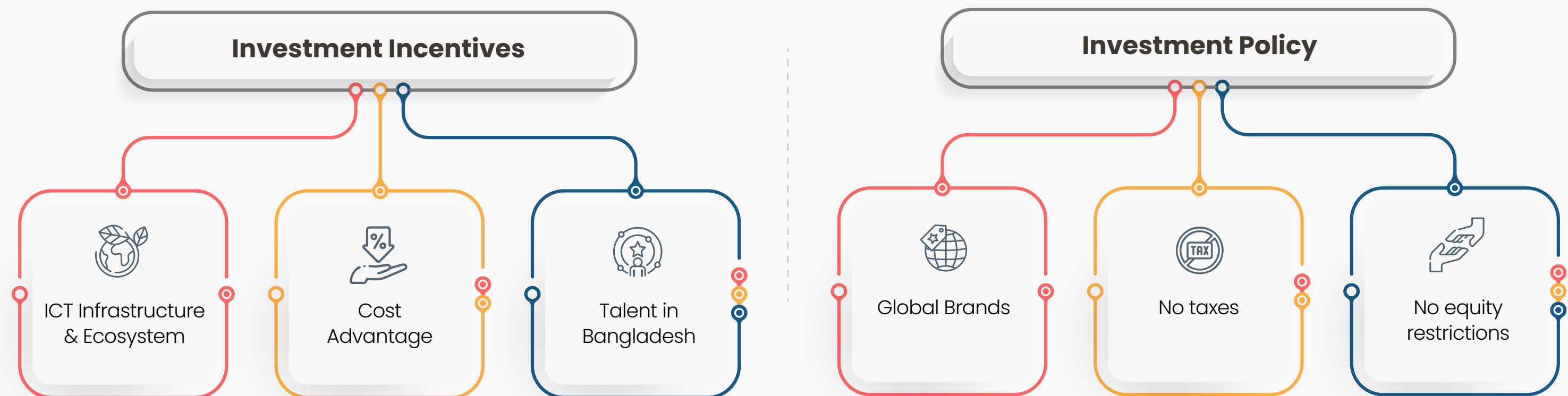
Philippines: A Global Outsourcing Hub 🇵🇭

Global in-house centers (GICs)

Provide services to Fortune 1,000 organizations around the world

Compatibility with businesses of all types and sizes

BPOs cater to startups, SMEs and corporations alike

Strong data privacy protection & laws

Philippines is one of the only three ASEAN countries with existing data protection laws

Centre of Excellence

Information Technology-Business Process Outsourcing (IT-BPO)
Prime economic driver

English proficiency and high literacy rates

Cost efficiency

Approx. 60% to 80% operational cost savings by outsourcing their services to the Philippines

Government support

Tax incentives
Tax breaks
Educational grants
Simplified import/export procedure

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TechDestination Pakistan

Up to 6% cash reward for IT exporters

Double taxation treaties with 65 countries

Retention of profits and dividends

Incentives for foreign investors

100% corporate income tax credit on IT exports

100% company ownership

TECH destiNATION PAKISTAN

Comparative Analysis

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Comparative Analysis of Policies

Fiscal Policies

Direct Tax Waivers	Indirect Tax Waivers
▪ Income tax exemption for 10 years	▪ Firms in hi-tech parks exempt from VAT on electricity and other utilities ▪ Accelerated depreciation on machinery ▪ No import duty on capital expenses ▪ If paid, tariff refund on import of raw materials
▪ Income tax exemption for FDI-backed businesses	▪ Omnibus Law Company's income tax subject to deductions based on ▪ how much is invested in R&D
▪ 100% income tax exemption in special economic zones for 5 years ▪ 50% income tax exemption thereafter	▪ IT parks subject to tax rebates ▪ India Customs Tariff: IT related imports are exempt from custom duty ▪ Software imports exempted from withholding tax since 2003
▪ 5-10 year income tax exemption for promoted activities	▪ Investment tax allowance for promoted activities ▪ Import duty exemption on raw materials for IT sector ▪ 60% reinvestment allowance on capital
▪ Income tax exemption for 2 years ▪ Preferential income tax after exemption ends	▪ Information Technology Agreement allows several IT products to be ▪ imported duty-free, including computers, network equipment, monitors, ▪ optical disc storage units and printed circuit assemblies
▪ Tax exemption scheme replaced with controversial tax credit initiative. ▪ Efforts underway to restore tax exemption for the industry in Pakistan	▪ No exemption from custom duty/VAT

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Monetary Policies

Subsidies	Grants/Financial Support

Bangladesh
- 100% VAT exemption on IT/ITeS office rents
- 80% VAT exemption on utilities in HTPs
- Accelerated depreciation on machinery

| | 10% cash incentive on total IT exports. Documentation and filing is handled by Bangladesh's IT Trade Association (BASIS). Startup Bangladesh offers BDT 500 crore for eligible startups |

Indonesia
- IFC PENSA Programs
- Access to Finance Program
  - Develop linkages between SMEs and banks.
  - Credit facility of up to US$100 million created for lending to SMEs.
  - Financial literacy workshops for businesswomen.

India
- Monetary rebate on cost of land for every job created, subject to 333 jobs created per acre by the firm

Grants/Financial Support:
- Startups are exempt form capital gains tax
- Stimulus package for IT industry to counteract effects of COVID-19
- India BPO Promotion Scheme (IBPS)
  - Incentivize BPO operations across India for the creation of employment opportunities for the youth
  - New businesses eligible for 5% financial assistance for setting up BOPs as a consortium with local entrepreneurs.

Malaysia
- 50% reimbursable grant for the costs of preparing and submitting bids for overseas projects
- 50% reimbursable grant for undertaking trade promotion activities overseas, such as trade fairs, trade missions, opening up of representative offices overseas, and market research
- 100% reimbursable grant for Malaysian IT firms undertaking

Philippines
- Startup Research Grant Program: Early-stage startup support for product R&D and market validation studies announced by Department of Science and Technology (DOST)

Pakistan
- No subsidy on job creation/rent/utilities

Grants/Financial Support:
- Recently announced support for marketing and research through PSEB (but no program to help companies get funding for growth initiatives, feasibility, etc.)
- Cash reward announced but not yet distributed

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Innovation Policies: Research & Development

Bangabandhu Innovation Grant
Collaborative effort of Bangladesh Computer Council (BCC), BASIS, Bangladesh Hi-Tech Park Authority, Controller of Certifying Authorities (CCA), A2I, Startup Bangladesh Limited
- Each entrepreneur will receive the fund from Tk 1 million to Tk 50 million
- In 2021, expanded into a reality TV show with top 65 innovative funds

NewGen IEDC
Launched by the National Science and Technology Entrepreneurship Development Board under the Department of Science and Technology, GoI. Aims to Inculcate the spirit of innovation and entrepreneurship among youth. Supports and encourages entrepreneurship through guidance, mentorship, and support.

Multiplier Grants Scheme (MGS)
Encourages collaborative Research & Development (R&D) between industry and academics/institutions for the development of products and package. if the industry supports the R&D of products that can be commercialized at the institutional level, the government shall provide financial support which will be up to twice the amount provided by industry.

MESTECC R&D Fund
State-funded initiative open to tech businesses contributing to economic growth. The Fund co-funds projects up to RM 3,000,000, or max. 90% of total project cost.

International Collaboration Fund (ICF)
Grant provided by the Government for international joint R&D projects between researchers from Malaysia and other countries to encourage and promote co-operation in science, technology and innovation through joint research and development activities for mutual benefit.

Smart Challenge Fund
Government's initiatives which is open to businesses and researchers interested in competing for funding opportunities in prioritized sectors (new technologies, processes, products)

Digital Society Research Grant
Malaysian Communications and Multimedia Commission (MCMC) offers the grant to eligible researchers to identify gaps in the industry and promote exclusivity

Startup Research Grant Program
Early-stage startup support for product R&D and market validation studies announced by Department of Science and Technology (DOST)

Kapatid Mentor Me Program
A three-step initiative by the Department of Trade & Industry (DTI) inclusive of mentoring, SSFs and IB schemes for MSEs.

Innovative Startup Act
An interdepartmental venture by Department of Information and Communications Technology (DICT), DOST and DTI for startups to access subsidies, grants and visas (provides government support for budding talent in the local startup community by giving entrepreneurs access to a Startup Venture Fund, travel grants, subsidies, and visas.

Funding from HEC and IGNITE oriented towards academia but little to no support for industry at large

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Innovation Policies Intellectual Property Rights

Startup Bangladesh Limited

Intellectual Labor Law: Regulated by Ministry of Industries (MOI) and Ministry of Cultural Affairs (MOCA). Receives support from the WTO, WIPO, and UNESCO for enhancing the copyright system

Digital Security Act 2018: Enacted laws regarding digital crime identification, prevention

National Intellectual Property Rights (IPR)

IPR policy introduced in 2016. Automated the process of trademark applications, including reduced processing time and online hearing.

Support for International Patent Protection in E&IT (SIP-EIT)

provides financial support to MSMEs and Technology Startups for international patent filing

Malaysian Intellectual Property Corporation (MyIPO)

Affords preliminary legal protection of intellectual property and is a pre-requisite for most statutory protections1 barring exceptions such as Copyright which receive automatic protection upon publication.

Trademarks Act 2019

Allows enforcement officers to arrest persons suspected of infringement and search for and seize infringing goods. Owners of unregistered trademarks can also bring action against traders who misrepresent their goods as being similar to or as being produced by the owner to take advantage of the latter's established goodwill and reputation.

- Intellectual Property Office of the Philippines established in 1998

- National Committee on Intellectual Property rights created in 2008

- In 2012, IPOPHL streamlined the end-to-end processing of IP applications from from filing to registration, including publications, printing of certificates and post-registration/post -granting, known as the Industrial Property Automation System (IPAS)

Signatory of TRIPS. No concrete laws have been passed to strengthen TRIPS framework.

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Innovation Policies **Incubation Services and Facilitation**

Startup Bangladesh Limited

Operates under the banner of Digital Bangladesh. Flagship venture capital fund of ICT Division, sponsored by Government of Bangladesh. Allocated capital BDT 500 crores.

4 existing Technology Business Incubation (TBI) centres established to promote innovation and technopreneurship. Aims to help startup technology-based businesses by providing a range of resources, services and facilities needed during the development stage

Startup India

Programme launched by Department for Promotion of Industry and Internal Trade (DPIIT) in January 2016. Also receives support from the Department of Science and Technology (DST) and Ministry of Education (formerly Ministry of Human Resource Development).

- Rajasthan's Techno Hub provides free-of-cost infrastructure for startups and entrepreneurs, T-Hub in Hyderabad is looking to expand to 300K sq ft with its multi-phase plan, KTIZ campus in Kerala can accommodate up to 1000 startup

- 16th January announced as National Startup Day in India

- SAMRIDH scheme helps startups with the necessary funding and skillsets crucial for the growth of their business ahead -300 businesses in first round

Several government sponsored initiatives such as Plan9, NICs, ORICs etc. have been announced but invested amount disproportionate to results. In need of stringent monitoring and evaluation to realize tangible results.

Comparative Analysis

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Human Capital Policies Training & Capacity Building Initiatives

Skill Enhancement Training Program

Trains 3000 professionals creating a readily employable competent workforce to be absorbed in the IT/ITeS sector by the industry - an initiative of Bangladesh Hi-Tech Park Authority

Industry Association Skills Training:

Skills for Employment Investment Program (SEIP), government initiative towards transforming and developing unskilled and semi-skilled workforce into a productive workforce in priority sectors.

Fast Track Future Leader (FTFL) Training

Targets building 1,000 future leaders for the IT/ITeS Industry of Bangladesh. LICT in collaboration with the IT/ITeS Industry selects trainees for FTFL program as per skill demand in the area of software development, IT/ITeS related management

FutureSkills Prime

Launched in Nov 2021 under the Ministry of Electronics and Information Technology (MeitY) and NASSCOM. End-to-end re-skilling or up-skilling portal to foster innovation and talent. Globally competitive curriculums, designed with the industry, and approved by the government. 100% online learning.

eSkills India

E-learning aggregator portal from NSDC . Brings together digital learning resources through various Indian and global knowledge partnerships. Enables access to the best-in-class learning resources. Catalogues over 1,200 digital courses from partners, and 4000+ courses through affiliate channels. International partners include Microsoft, Google, Cisco

Digital Skill Training Directory (DSTD) is a comprehensive catalogue of courses and online trainings that are reviewed and endorsed by a panel of digital industry experts to skills upgradation for digital economy jobs.

SIgnatory of Go Digital ASEAN, under which courses like "Digital Tools for Job Seekers", "Harnessing Social Media to Expand your Business", and "Getting your Business Online" have been integrated to TESDA Online Program (TOP).

TEVTA and NAVTCC have introduced IT skill courses but not in line with industry needs.
In 2021, PSEB has launched skills development programs in consultation with industry:

- Industry-led Boot Camps: Training 4,000 unemployed/underemployed graduates;
- Academia-Bridge Program: Training 1600 university students;
- Soft Skills Training Program: 500 IT professionals and leaders;
- Upskilling and Reskilling Initiative for IT Professionals.

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Human Capital Policies IT focused Educational Policies & Curriculum

Bangladesh

Top-up IT Training

The program targets graduates (IT, relevant science and engineering), to train them for jobs in IT/ITES industry. Country's major Universities and Training Institutions are included in the program

Foundation Skills

Skills over 20,000 ITeS professionals (Non-Science/HSC) graduates to meet global standards

Malaysia

Digital Skill Training Directory (DSTD) is a comprehensive catalogue of courses and online trainings that are reviewed and endorsed by a panel of digital industry experts to skills upgradation for digital economy jobs.

India

FutureSkills Prime

FutureSkills Prime is a collaboration of MeitY and NASSCOM to develop curriculum in consultation with the industry
PMKVY is the flagship scheme of Ministry of Skill Development & Entrepreneurship (MSDE). Skill Certification Scheme, assessed and certified under Recognition of Prior Learning (RPL).

eSkills India

E-learning aggregator portal from NSDC . Brings together digital learning resources through various Indian and global knowledge partnerships. Enables access to the best-in-class learning resources. Catalogues over 1,200 digital courses from partners, and 4000+ courses through affiliate channels. International partners include Microsoft, Google, Cisco

Philippines

Philippine Department of Education launched a digital literacy program in 2008 to develop and validate public school teachers' ICT skills using Certiport® Internet and Computing Core Certification (IC³®)

ICT skills trainings have been implemented at school level

The Bureau of Elementary Education partnered with Intel to implement the Classmate PC program, which provides personal computers to all elementary school students. The Bureau of Secondary Education sought to create computer laboratories in 100 percent of the country's high schools. The Bureau Alternative Learning System is digitizing its modules so mobile teachers have easier access to instruction materials to better meet the needs of learners outside the formal school system.

Pakistan

- No industry-led curriculum development.
- Globally verified curriculum policy and structure in-place for universities, but curriculum not regularly updated to reflect evolving industry needs.

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Human Capital Policies **Facilitating Employment Creation & Attracting Talent**

Online Outsourcing Training Programs

Carry out training and mentorship leading to online outsourcing for youth and women. The programs target to train 23,000 in different outsourcing skills

- Digital India digitisation initiatives seek to create 65 million jobs by 2025 by promoting start ups, providing digital skills training and strengthening the e-commerce landscape.

- The BPO scheme has led to creation of 200,000 jobs by taking the business process outsourcing centres to smaller cities and towns.

The eRezeki program, launched by MDEC, enables citizens, especially low-income groups, to generate additional income by doing digital assignments via online crowdsourcing platform. The eRezeki participants are matched with digital work in line with their respective skills. Options include:

- Digital micro tasks
- Digital works
- Digitally-enabled tasks

The Department of Education (DepEd) launched the Technology-Assisted Work Immersion Delivery (Oplan Tawid) to provide senior high school (SHS) students with digital literacy skills and increase their employability in partnership with t Microsoft and CloudSwyft. The vocational track has been introduced in mainstream schools.

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Investment Climate Policies Ease of doing Business

Bangladesh

- Bangladesh National Board of Revenue (NBR) announced the creation of **National Single Window (NSW)** in 2018 for facilitating imports, exports and curtailing duty evasion. 38 departments signed the MoU.

- In Jan 2022, the funding for the project was **slashed** due to overlapping functions.

India

- **National Single Window System (NSWS)** is a digital platform for investors to identify and to apply for approvals as per requirements.

- **Know Your Approvals (KYA)** module supports information across 32 participating ministries and 16 states.

- Hosts applications for approvals from **21 Central Departments** and **14 State Governments.**

Malaysia

- **National Single Window (NSW)** for Trade Facilitation was established in 2009 and led by the Ministry of Finance.

- Creates linkages between industry and relevant government departments. Reuses recorded data for **time saving and simplified processes**.

- Connected with more than 30 Permit Issuing Agencies, 50 authorities, 10 banks, 160 Customs stations.

- **Six core services:** ePCO, ePermit, ePermitSTA, eManifest, eDeclare and ePayment

Philippines

- **National Single Window (NSW)**, launched in 2010, allows stakeholders in trade and transport to log information in a secure, **electronic single entry point** for import, export and transit related requirements.

- Part of the larger ASEAN Single Window (ASW)

Pakistan

NSW announced but not implemented yet. Government has committed to connect 74 departments for import/export of goods till 2024. Integration expected by 2023

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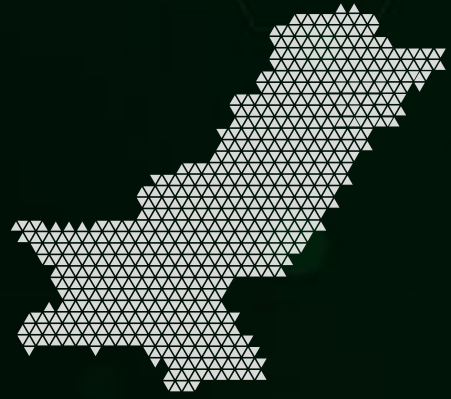
Pakistan: The Way Forward

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Recommendations: Fiscal Policies

Fiscal Policies

Tax Exemption
Reverse Tax Credit Regime to Tax Exemption on income tax for IT/ITeS exports till 2025
- India, Bangladesh, Indonesia, Philippines and Malaysia all offer 100% tax exemption to the ICT industry for 2-10 years and preferential tax rates thereafter

Consistent tax framework and tax harmonization
Develop a consistent tax framework in consultation with P@SHA as the licensed trade body and all relevant organizations (FBR, State Bank, Provincial Revenue Boards, PSEB, PITB, NITB, etc.), should be involved at provincial and federal level
- Reinforce the policies that were announced till 2025, to ensure policy continuity

Removal of Custom and Import Duty
Zero duties and sales tax on laptop and other IT equipment
Introduce special import duty concessions on capital equipment to enable smaller IT/BPO/KPO firms to upgrade service offering, improve productivity and grow seat capacity
- Custom duty exemption further reduces the cost of doing business, allowing products and services to be priced competitively
- India, Bangladesh and Malaysia have an import duty exemption and waivers on domestic procurement of goods required for setting up the facility for IT industry
- Philippines allows duty-free import of all raw materials not locally manufactured in the country

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Recommendations: Monetary Policies

Monetary Policies

Monetary incentives for IT industry

mplement flat 5% cash reward incentive against total exports
- Bangladesh has implemented 10% cash reward against total export
- Growth-based program reduces the potential of incentive
- Announced cash reward is small compared to others and slow in implementation

Preferential rates on rent and utilities

Facilitate and create a systematic approach for applying rent regulations for IT zones
- Bangladesh subsidizes rent and utilities for IT businesses
- India offers monetary rebate on job creation

Improve access-to-finance

Special Export Refinance Scheme for IT/ITeS Exporters with collateral-free and lower than market interest rate (2-3%)
Introduce dedicated financing windows (e.g., the SME Financing Facility) to ensure access to non-collateralized loans and ensure administration
of existing schemes are streamlined for IT/BPO business eligibility
- Startup Bangladesh has established BDT 500 crore fund for startups
- India BPO scheme offers 5% financial assistance for new businesses

Incentivize activities that encourage R&D
- Malaysia offers 100% grant for firms undertaking new feasibility studies
- Philippines offers financial support to early-stage startups for R&D and market studies

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Recommendations: Innovation Policies

Innovation Policies

- **#MakeinPakistan: Take measures to promote and foster local innovation in Pakistan**
  - A special federal-provincial joint taskforce should be formed with private-sector representation (P@SHA), and all government departments (incl. law enforcement agencies) should request procurement of software to that committee. Committee decides if a local product can be used or should it be imported.
    - Amend PPRA rules to add quota for local products/SMEs, and
    - Funds should be allocated to develop commonly used local products in Pakistan (e.g. Zoom, secure OS, etc.) to ensure savings on the foreign

- **Strengthen IP laws**
  Strengthen intellectual property laws and data protection policies in line with global practices to protect Pakistan software product innovation and encourage IP-led growth in the sector.
    - India's "National Intellectual Property Rights policy" (2016) and "Support for International Patent Protection in E&IT (SIP-EIT)" facilitate patent filing and protect intellectual property
    - Malaysia's Trademarks Act (2019) stipulate fines and jail terms for offending parties

- **Determine ROI for startups**
  Develop a system of KPIs and M&E mechanism to ensure adequate ROI for incubated startups
    - India and Philippines provide support at all stages for startups through incubation centers and accelerators

- **Funds for Innovative Products**
  Allocate funds for innovative products and services
    - India, Bangladesh, Malaysia all have grants and funds that are awarded to firms engaging in R&D and coming-up with products

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Recommendations: Human Capital Policies

Human Capital Policies

○ **Industry-driven Training Programs**
Create public-private training institute for reskilling and upskilling.
- PSEB's industry-led bootcamps are one of the first PPPs towards digitally skilled workforce in Pakistan.
- Bangladesh, India, Philippines and Malaysia all have ongoing training programs developed in consultation with the industry

○ **Industry-Approved Curriculum**
Create industry-approved digital curriculum for IT industry
- Bangladesh and India have invested heavily in industry-led curriculum design for IT industry
- India launched Future Skills Prime, an initiative of MEITy and NASSCOM, for upskilling talent through a 100% online portal, in consultation with the industry
- Malaysia has introduced an extensive course catalogue of courses with industry-approved curricula

○ **Capacity Building of Sales Teams in Pakistan**
Allocate funds to Conduct capacity building programme for IT Industry to review and refine their product portfolio and internal go-to market strategies to identified market opportunities
This will be aligned with #BrandPakistan initiatives as mentioned in Investment Climate Recommendations
- Launch portal with consolidated information of all local and international courses and modules

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Recommendations: Human Capital Policies

Human Capital Policies

- **Skill Development Programs for different levels of IT industry**
  - Develop a 5-year roadmap of skill development initiatives
    Allocate funds for skill development programs for different target audiences
    - Both India and Bangladesh have different programs for different segments: Bangladesh has fast-track leadership program for IT management employees, have Skills for Employment Investment Program (SEIP) for semiskilled and unskilled workforce, and Skill Enhancement Training Program as industry-readiness program
  - Launch short-term conversion programs for graduates of other subjects to transition to the IT sector and obtain required skills and become employable
  - Conduct Provincial-level awareness sessions for school-going youth on high-potential career opportunities in the software sector, so as to expand the pipeline of available talent at an early stage
  - Develop training programs for enabling high-school and college students and teachers to train on basic skills
    - Philippines has been active in training high-school teachers as well as providing digital content for them

- **Increase IT graduates to 100,000 per annum**
  - Re-launch Outreach Rural Support Program and provide 20,000 scholarships to students from rural areas
  - Launch awareness programs for high-potential career opportunities in IT/ITeS industry in Pakistan
  - Offer different type of degrees of varying duration (e.g. 2-year associate degree instead of bachelors

- **Incentivize job creation**
  Tax benefits against job creation for IT industry
    - India offers monetary rebate to IT companies, subject to creation of 333 jobs per acre in tech parks
    - Malaysia has fixed local employment quotas for foreign firms operating in the country

Comparative Analysis

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Recommendations: Investment Climate Policies

Investment Climate

○ **Launch of Single Window Operation**
Prioritize the launch of National Single Window Corridor for trade facilitation
- In Pakistan, one-window operation is announced as part of IT zones but not implemented yet, different single window initiatives being carried out hence lacking integration of government departments
- India, Malaysia, Philippines have NSWs in place to ease local and international businesses in registrations, exports, licenses and approvals and payments. This is most critical in ensuring ease of doing business for IT industry

○ **Drive to provide quality internet**
A special program with measurable indicators to increase internet penetration in Pakistan, especially in tier-2 cities. This also includes focus on improving 5G infrastructure and beyond.
- India has forecasted its 5G ecosystem to generate revenues worth USD 450 billion over the next 15 years
- Malaysia and Philippines boast 89.56% and 50% population with access to internet, respectively

○ **Digital Payments & Forex Retention**
Facilitate digital payment platforms to enable Pakistani IT companies to cater to international clients hassle-free

Comparative Analysis

P@SHA

Recommendations: Investment Climate Policies

Investment Climate

- **Promote #BrandPakistan as #TechDestination**

  Establish brand TechDestination Pakistan, and strengthen Pakistan IT industry's global market positioning and international competitiveness
  - Develop Pakistan's USP in IT industry – a credible and unique brand positioning for all marketing activities
    - Digital India sells its infrastructure capabilities, Bangladesh sells low-cost center, and Philipines sells itself as global outsourcing hub for BPOs
  - Develop media collaterals and launch publicity campaign to promote the brand and develop marketing materials (featuring Pakistan's software capabilities, sector development initiatives and incentives, and top business profiles/case studies of success), and branding guidelines based on the above identified brand positioning, for all domestic and international industry events.
  - Hire international PR company for improving country perception and marketing
  - Showcase Pakistani innovations in technology at international forums, with funds drawn from public-private partnerships
  - Appoint international ambassadors to advocate for Pakistan as the next leading hub of IT services. Train Pakistan's commercial counsellors in overseas diplomatic missions on the new brand positioning, conduct information sessions and identify priority countries to work on.
  - Accelerate market diversification and improve commercial success in new markets: develop market-entry plans, global market research
  - Incentivize export-driven activities
    - Malaysia gives 50% reimbursable grant for the costs of preparing and submitting bids for overseas projects, and for undertaking trade promotion activities overseas, such as trade fairs, trade missions, opening up of representative offices overseas, and market research

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Pakistan Software Houses Association for IT & ITES

IT Industry in Pakistan is on a **growth path** and **breaking all records**...

Let's learn from the best practices of other countries to **provide the ecosystem** it needs to flourish!