

SECTOR BRIEF



IT Software Industry in Pakistan

By ICMA Research and Publications Department

Pakistan's IT sector is rapidly expanding, with ICT exports increasing by 28% to US\$ 1.86 billion in H1 FY 2024-25. Recognized as the "Tech Destination of the Year" at GITEX Global 2024, the industry demonstrates growing global competitiveness. The Digital Nation Pakistan Bill 2025 and the Digital FDI Initiative reinforce the country's commitment to digital innovation. With a young, skilled workforce, Pakistan aims to achieve an IT export target of up to US\$ 15 billion, strengthening its position as a global technology hub.

Historical Background

1947

Post-Independence Technological Challenges: Pakistan faced significant infrastructure and technological deficits at its inception lacking a cohesive national ICT strategy and basic communication systems.

1970s

Pakistan's Initial Technological Strides: Beginning with the installation of rudimentary computers in government and academic institutions, marking the start of the digital journey.

1980s

Expansion of Telecommunication Infrastructure: Telecommunication services grew, paving the way for ICT development, with early computer systems and fax machines introduced within government offices.

1990s

Internet Emergence and ICT Policy Formation: In 1995, Pakistan's connection to the internet marked a new digital era, and by 1999, a national IT policy was created to support the sector's growth.

2000

Formation of E-Governance and ICT Framework: The establishment of the Ministry of Information Technology highlighted the government's commitment to digital governance, with e-government initiatives gaining momentum.

2002

Advancing IT Education and Workforce Development: The National ICT Scholarship Program was introduced to strengthen human capital in the IT sector by offering opportunities to students from underserved areas.

2007

Rapid IT Sector Expansion: Both public and private sectors contributed to IT growth, with an emerging software industry and a focus on improving educational technology.

2014

Growth in Software Industry and Export Potential: The Pakistan Software Export Board launched initiatives to improve software development and certifications, boosting IT exports, though competition with regional players like India remained strong.

2020

E-Governance, Healthcare, and IT Infrastructure Expansion: E-governance systems, telemedicine, and land revenue management projects flourished, alongside improvements in IT certifications, enhancing global competitiveness.

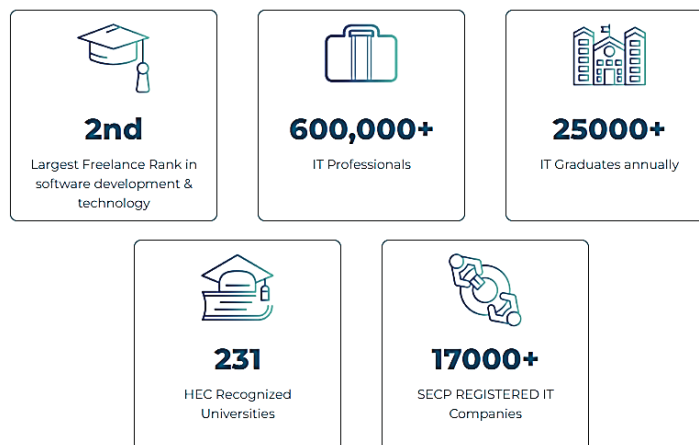
2024

ICT Sector Take-Off and Future Prospects: Pakistan's ICT sector has entered a rapid growth phase, with an emphasis on expanding digital services and infrastructure to drive economic progress.

Sector Brief

Pakistan's IT sector has demonstrated exceptional growth, with exports rising by **70%** over the past three years, contributing approximately **1%** to the nation's GDP, valued at **\$3.5 billion**. The sector has expanded significantly over the past four years and is expected to reach **\$7 billion** in the next two to four years. In the year 2024, the IT growth was driven by Pakistan's youthful, tech-oriented demographic of **227.3 million**, with **175.62 million** mobile subscribers and **82.90 million** internet users.

A notable portion of the population, particularly those in the 15 to 29 age group, forms a dynamic and digitally literate workforce, adding to the nation's growing talent pool. Over **25,000** IT graduates are produced annually, further strengthening the country's competitive position in the global digital market.



with investors confidence rising, driven by successful startups like Careem, Daraz, Zameen.com, and Rozee.pk attracting substantial funding. Additionally, traditional industries such as textiles and fertilizers are increasingly investing in the tech ecosystem, supporting further sector growth.

With ambitious targets to elevate IT revenue to **\$7 billion** within the next few years, Pakistan is positioned to further capitalize on favorable government initiatives, such as a **\$10 billion** collaboration with South Korea to develop a technology park in Islamabad. The country's thriving startup ecosystem and growing investor interest in its digital economy further solidify its role as a key player in the global IT market. Moreover, Pakistan's IT exports hit **\$324 million** in November 2024, up **25% YoY** but down **2%**

MoM, with 5MFY25 exports rising **33%** to **\$1.53 billion**, driven by SBP's relaxed retention limits and global client expansion.

Sources:

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- Information technology in Pakistan
- Telecommunications in Pakistan
- Chapter 26: Information and Communication Technologies
- Pakistan's Tech Renaissance: Innovations Shaping the Future
- Sector Profile Tech (IT and IT enabled Services)
- Digital Economy Report 2024
- MOITT- Establishment Of 25 Software Technology Parks
- P@SHA Industry Overview: Exports of Telecom, Computer & Information Services
- Policy Brief Series 2022
- SWOT Analysis of Artificial Intelligence

TECHdestiNATION Pakistan

IT POTENTIAL



The IT sector encompasses more than **12,000** companies and has emerged as a competitive player in software development, mobile app creation, and freelancing. Pakistan ranks **3rd** globally in freelancing and **5th** on Upwork, underscoring its prominence in the international IT outsourcing landscape. Moreover, annual IT remittances through formal banking channels have experienced substantial growth, contributing to the sector's ongoing development. Over the last 5 years, IT export remittances have increased by **137%** at a CAGR of **18.85%**, while domestic IT revenue stood at **\$1.2 billion**. The workforce, which includes **300,000** English-speaking IT professionals, continues to drive the sector's growth. Pakistan's expanding digital infrastructure and skilled labor force make it an attractive destination for IT and IT-enabled services (ITeS) investments. Aligned with **Pakistan Vision 2025** and the **Digital Policy of 2018**, the ICT sector aims to reach a **\$20 billion** market size by 2025

SWOT Analysis of IT Software Industry in Pakistan

STRENGTHS

- ◆ Pakistan's IT industry benefits from a large pool of skilled and affordable software developers.
- ◆ Growing number of tech startups, particularly in Fintech, EdTech and mobile banking.
- ◆ High demand for software services in international markets due to competitive pricing.
- ◆ Increasing internet penetration and digital infrastructure support growth.
- ◆ Strong presence of tech incubators and accelerators promoting entrepreneurship.
- ◆ Government support through policies and initiatives aimed at the digital economy in years ahead.
- ◆ Freelancing sector growth, with Pakistan being one of the top countries for software outsourcing.
- ◆ Advanced software solutions being developed for key sectors such as healthcare, finance, and education
- ◆ Strong academic and research institutions contributing to the development of IT talent.
- ◆ Highly dynamic startups like Careem, Daraz, and Bykea having novel business models.



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WEAKNESSES

- ◆ Intellectual property and cybersecurity risks in a fast-evolving digital landscape.
- ◆ Gaps in digital literacy among parts of the population, which can limit market adoption of tech products.
- ◆ Talent retention issues, with skilled tech professionals often migrating for better opportunities abroad.
- ◆ Lack of sufficient venture capital and support for early-stage tech startups.
- ◆ Heavy reliance on international markets for funding and technology adoption.
- ◆ Limited infrastructure and resources in certain regions can hinder broader adoption of technology.
- ◆ Cumbersome foreign exchange controls, complex licensing, and outdated labor and tax regulations weaken internal efficiency and hinder IT sector growth.
- ◆ Fragmented digital ecosystem, making it harder for startups to achieve scale quickly.
- ◆ Challenges in the accessibility of cutting-edge technology for smaller startups.
- ◆ Slow pace of innovation in certain traditional sectors and industries, restricting the potential of tech



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OPPORTUNITIES

- ◆ Pakistan's software market is set to reach **US\$1,045.00 million** in revenue by 2025
- ◆ Enterprise software is expected to lead the market with a projected revenue of **US\$480.30 million** in 2025.
- ◆ Government support through policies like **0.25%** corporate tax and initiatives like Techlift boost industry growth.
- ◆ Pakistan's tech-driven economy is attracting global players seeking affordable software solutions.
- ◆ Developing cybersecurity expertise addresses global security needs and positions Pakistan as an emerging tech player.
- ◆ Hosting global tech events like AICTA and participating in GITEX and LEAP enhances Pakistan's global presence.
- ◆ International collaborations with countries like Saudi Arabia, UAE, Bahrain, Brazil, and Jordan boost IT outsourcing growth.
- ◆ Public-private partnerships involving P@SHA, MoITT, PSEB, and private sector firms will drive industry growth.
- ◆ The software market in Pakistan, valued at **\$3.2 billion**, continues to grow despite macroeconomic challenges.
- ◆ As per P@SHA 2023 report, Pakistan's ICT sector is expanding with over **19,000** registered companies, driving innovation and collaboration.



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THREATS

- ◆ The absence of clear thematic and operational linkages in the National IT Policy and its alignment with other sector policies.
- ◆ Rise in Intellectual property risks and the potential for digital piracy threatening business integrity.
- ◆ Brain drain of skilled professionals seeking better opportunities abroad, leaving a talent gap.
- ◆ Extensive internet censorship, frequent firewall disruptions, inadequate data protection, and government surveillance undermine global competitiveness and deter international investment.
- ◆ Job displacement from automation may lead to social unrest and economic inequality.
- ◆ Political instability hinders long-term industry development.
- ◆ Increasing competition from regional tech hubs, such as India, which offer similar or more advanced services.
- ◆ The challenge of competing in international markets while maintaining high-quality standards.
- ◆ Policy barriers for Payment Service Providers (PSPs) and Operators (PSOs) may hinder e-commerce and digital transactions.
- ◆ Global economic downturns and internet service interruptions reduce demand for Pakistani IT products and services.



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