P@SHA
Pakistan IT Industry Association

A WHITE PAPER BY THE PAKISTAN IT INDUSTRY HOUSES ASSOCIATION (P@SHA)

Driving Inclusive Growth in Pakistan's Tech Sector
FROM POLICY TO PRACTICE

MESSAGE FROM THE CHAIR, DIVERSITY & INCLUSION
COMMITTEE

Pakistan's technology sector is at a turning point. As our industry grows, it must also become more inclusive and sustainable. Diversity, especially the leadership of women, is not only about fairness. It is the key to innovation, resilience, and long-term success.

At P@SHA, we know women are still underrepresented in technology. This is true in education, jobs, leadership, and boardrooms. The reason is not lack of talent or ambition. It is the barriers that are cultural and systemic. Removing these barriers requires shared responsibility and deliberate action.

I want to thank the Diversity and Inclusion Committee and the P@SHA Secretariat for their hard work in creating this white paper. Their effort and collaboration have made sure the insights here are practical and based on real experiences.

This paper reflects the voices of leaders, educators, and advocates who believe Pakistan's digital future must include all its talent. I invite women-led organizations, women professionals, and allies to join P@SHA. Together we can shape policies and programs that open doors for equal participation.

Our goal is clear. We want to build a technology ecosystem where diversity is the norm.

Dr. Sonia Saleem
Chair, Diversity & Inclusion Committee, P@SHA

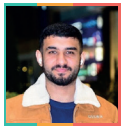# ACKNOWLEDGMENTS

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01 Overview

Pakistan's technology sector has evolved into one of the country's most dynamic economic engines. In the **financial year 2024–25, Pakistan's IT and IT-enabled services exports surged to a record USD 3.8 billion, reflecting strong global demand and a growing services footprint;** this marks a significant year-on-year increase from around USD 3.2 billion in the previous fiscal year. The industry supports a substantial workforce, with tens of thousands of professionals employed across more than 50 Software Technology Parks and e-Rozgaar centres; one such study notes over 4,600 IT professionals working in these parks alone.

Yet this growth story masks a persistent structural challenge: the workforce driving this success is not fully inclusive. According to P@SHA's diversity landscape report, women comprise only about 17 % of the IT industry workforce, significantly lower than their share of the overall labor force. Independent estimates similarly report women's representation at around 14 % of the IT workforce, underscoring an entrenched gender gap. Persons with disabilities, despite a legally mandated employment quota of 2 %, remain severely under-represented in formal employment; while reliable sector-level data are limited, multiple legal and sector reviews confirm that actual employment often falls well below the quota in both public and private sectors. Ethnic and religious minorities remain largely absent from decision-making roles within the tech industry, reflecting broader structural and societal exclusion that inhibits equitable access to leadership positions.

These gaps do not stem from a lack of talent; rather, they highlight systemic barriers across education pathways, hiring practices, career progression, and leadership access, which must be addressed to fully unlock Pakistan's digital economy potential.

For Pakistan's technology sector—where innovation, adaptability, and global competitiveness are critical—diversity and inclusion are directly linked to sustained growth. Recruiting diverse talent alone is insufficient. Organizations must ensure equitable progression, meaningful representation, and empowerment across the entire talent lifecycle, from entry-level roles to senior management and boardrooms.

This white paper emerges from insights gathered during the Diversity & Inclusion Roundtable at ITCN Asia 2025, convened by the Pakistan Software Houses Association (P@SHA). The roundtable brought together technology leaders, policymakers, educators, and inclusion advocates to examine systemic barriers and co-create practical solutions tailored to Pakistan's context.

The framework and recommendations presented in this paper are aligned with ISO 30415:2021 (Human Resource Management – Diversity and Inclusion), ensuring global relevance, credibility, and consistency with internationally recognized best practices.

The document synthesizes sectoral data, participant insights, policy analysis, and real-world case studies, and culminates in two concrete outputs:

- **A Diversity Pledge,** committing organizations to measurable and sustained inclusion actions
- **This White Paper,** serving as a roadmap for coordinated, accountable, and scalable inclusion across Pakistan's digital economy

[1] htttps://www.nation.com.pk/20-Jul-2025/it-exports-surged-to-all-time-high-of-dollar-3-8-billion-in-fy25?utm_source=chatgpt.com
[2] https://www.brecorder.com/news/40366886/it-ites-export-remittances-surge-by-237pc?utm_source=chatgpt.com
[3] https://www.pasha.org.pk/publications/psha-diversity-inclusion-it-ites-landscape/?utm_source=chatgpt.com
[4] https://en.dailypakistan.com.pk/13-Jun-2023/women-in-pakistan-s-tech-industry?utm_source=chatgpt.com

02 PURPOSE
AUDIENCE

Purpose

This white paper aims to:

Illuminate systemic barriers to inclusion across Pakistan's workplaces and education systems, highlighting how gender, disability, and ethnic or religious identity intersect to shape access, progression, and leadership outcomes in the technology sector.

Provide evidence-based and context-specific recommendations to dismantle structural, institutional, and cultural obstacles, translating policy intent into actionable practices for industry, government, and academia.

Position diversity and inclusion as an economic and growth imperative, demonstrating how inclusive talent strategies contribute to higher productivity, stronger innovation capacity, improved retention, and long-term competitiveness within Pakistan's digital economy.

Serve as a call to action for policymakers, corporate leaders, educators, investors, and civil society to treat inclusion not as a peripheral CSR activity, but as a core driver of sustainable economic growth, workforce resilience, and global market relevance.

Audience

The intended readership includes:

○ **P@SHA member companies and industry leaders,** seeking to operationalize diversity and inclusion through measurable policies, leadership accountability, and talent-development frameworks that strengthen organizational performance.

○ **Federal and provincial policymakers,** aiming to strengthen policy coherence, improve enforcement mechanisms, and align inclusion objectives with national digital economy and employment strategies.

○ **Academia and educational institutions,** responsible for developing a future-ready talent pipeline that reflects Pakistan's social diversity and meets evolving industry skill requirements.

○ **Development organizations and advocacy networks,** playing a catalytic role in piloting, scaling, and sustaining inclusion initiatives across education and employment ecosystems.

○ **Investors, venture capital firms, and development finance institutions,** for whom diversity and inclusion are increasingly recognized as indicators of strong governance, risk mitigation, and long-term value creation. For this audience, the paper outlines the return on inclusion—including improved innovation outcomes, access to wider talent pools, stronger organizational resilience, and enhanced ESG performance—positioning inclusive companies as more competitive, investment-ready, and future-proof.

03 METHODOLOGY

The insights presented in this white paper are derived from multiple qualitative and secondary sources, enabling a contextual and practice-oriented understanding of diversity and inclusion challenges and opportunities within Pakistan's technology sector. The methodology prioritizes depth of insight, sector relevance, and practical applicability over statistical generalization.

3.1 Roundtable Discussions

Primary insights were generated through a one-day Diversity & Inclusion Roundtable held at ITCN Asia 2025, convened by P@SHA. The roundtable brought together senior industry leaders, human resource practitioners, educators, policymakers, and inclusion advocates.

Participants engaged in structured breakout sessions and moderated open forums, examining barriers and solution pathways across:

Gender inclusion

Disability and neurodiversity

Ethnic and religious minority representation

Education-to-employment transitions

Sample Composition and Scope:

Approximately 90% of participating organizations were P@SHA member firms, reflecting the association's core constituency and leadership role within Pakistan's technology sector. While this ensured strong sectoral expertise and operational relevance, it also introduced a membership-based sampling bias. As such, findings should be interpreted as industry-informed insights rather than statistically representative of the entire national workforce.

This limitation is explicitly acknowledged, and the paper positions its findings as directional and strategic, intended to inform policy dialogue, organizational practice, and future research.

3.2 **Thematic Analysis**

A qualitative thematic analysis was conducted on roundtable notes, facilitated discussions, and participant inputs to identify recurring patterns, systemic challenges, and actionable recommendations.

To enhance analytical rigor:

○ Inputs were independently reviewed and coded by **multiple reviewers from the P@SHA Diversity & Inclusion Committee.**

○ Findings were then compared and reconciled through **consensus-based discussion,** serving as an **inter-rater validation mechanism** to reduce individual interpretation bias and improve the reliability of identified themes.

While formal quantitative inter-rater reliability scores were not calculated, this structured cross-review process strengthened the consistency and credibility of the qualitative findings.

3.3 **Policy and Framework Review**

The study includes a structured review of existing national laws, provincial strategies, and institutional frameworks related to:

○ Gender equality and workplace safety
○ Disability inclusion and employment quotas
○ Minority rights and anti-discrimination provisions

This review assessed both policy intent and implementation gaps, with particular attention to enforcement mechanisms, institutional overlap, and alignment with international commitments such as CEDAW and CRPD.

3.4 **Secondary Data Analysis**

To contextualize qualitative insights, the paper incorporates secondary data from credible national and international sources, including:

○ Securities and Exchange Commission of Pakistan (SECP)
○ Pakistan Bureau of Statistics (PBS)
○ International Labour Organization (ILO)
○ UNESCO, UNDP, and World Bank

These data points were used to illustrate workforce participation, leadership representation, education access, and sectoral gaps. Where sector-specific or disaggregated data were unavailable, this limitation has been transparently noted.

3.5 **Case Studies and Practice Examples**

The paper draws on real-world organizational and community-based case studies from Pakistan's technology and education ecosystems. These examples illustrate how inclusion initiatives can be operationalized, scaled, and sustained across diverse contexts.

Case studies are presented as illustrative practices, not as controlled evaluations, and are intended to inform replication and adaptation rather than prescriptive implementation.

3.6 **Ethical Considerations**

This white paper is based on voluntary participation, non-attributable discussions, and publicly available secondary data. No personal or sensitive individual-level data were collected.

While formal institutional ethics clearance was not required due to the consultative and non-experimental nature of the study, the process adhered to basic ethical principles, including:

○ Informed participation
○ Anonymity of individual contributors
○ Responsible and non-harmful use of insights

Methodological Limitations

The authors acknowledge the following limitations:

○ A sector-weighted sample, primarily comprising P@SHA member firms
○ Reliance on qualitative insights, which emphasize depth over statistical generalizability
○ Limited availability of disaggregated national data on disability, minority status, and leadership representation

These limitations underscore the need for future large-scale, multi-sectoral research, while not detracting from the paper's value as a practice-informed, policy-relevant contribution to Pakistan's inclusion discourse.

04 EXECUTIVE SUMMARY

Pakistan has made meaningful progress in articulating inclusion-focused policies and commitments; however, systemic barriers persist across the entire talent lifecycle—from education and entry into the workforce to leadership and governance. These barriers are not isolated; they are interconnected, reinforcing cycles of exclusion that limit individual opportunity and constrain national economic potential.

Key Insights

Gender

Women continue to face entrenched leadership bias, limited access to professional networks, and career interruptions driven by societal and organizational norms. Despite growing awareness of diversity targets, women hold only an estimated 8% of leadership roles in the technology sector. The "glass ceiling" remains firmly in place, reinforced by unequal access to mentorship, sponsorship, and decision-making platforms. In certain workplace contexts, resistance to female leadership remains pronounced, underscoring the need for sustained sensitization, leadership counseling, and accountability mechanisms rather than symbolic representation alone.

Disability and Neurodiversity

While policy frameworks exist, implementation remains fragmented and workplace readiness is low. Fewer than 15% of educational institutions are physically or digitally accessible, and only approximately 0.3% of the formal workforce identifies as persons with disabilities, far below the legally mandated 2% quota. Beyond physical access, workplace design remains largely non-inclusive—from rigid work environments to inflexible communication norms—creating significant barriers for persons with disabilities and neurodiverse, high-potential individuals, whose strengths are often overlooked due to the absence of inclusive design, accommodations, and adaptive management practices.

Ethnic and Religious Minorities

Representation of ethnic and religious minorities at senior and decision-making levels remains disproportionately low. Identity-based barriers, compounded by socio-economic marginalization, reinforce structural exclusion. Even when minorities are hired into entry- or mid-level roles, pathways to leadership remain opaque or inaccessible, reflecting deeper issues of trust, visibility, and institutional bias.

Education Pipeline

A persistent misalignment between academic curricula and industry requirements leaves many graduates underprepared for modern, technology-driven workplaces. Marginalized learners—including girls, persons with disabilities, and minority students—face additional barriers such as limited digital access, lack of assistive technologies, inadequate counseling, and weak transition support from education to employment. Rural girls' restricted access to mobile devices and internet connectivity further compounds digital exclusion.
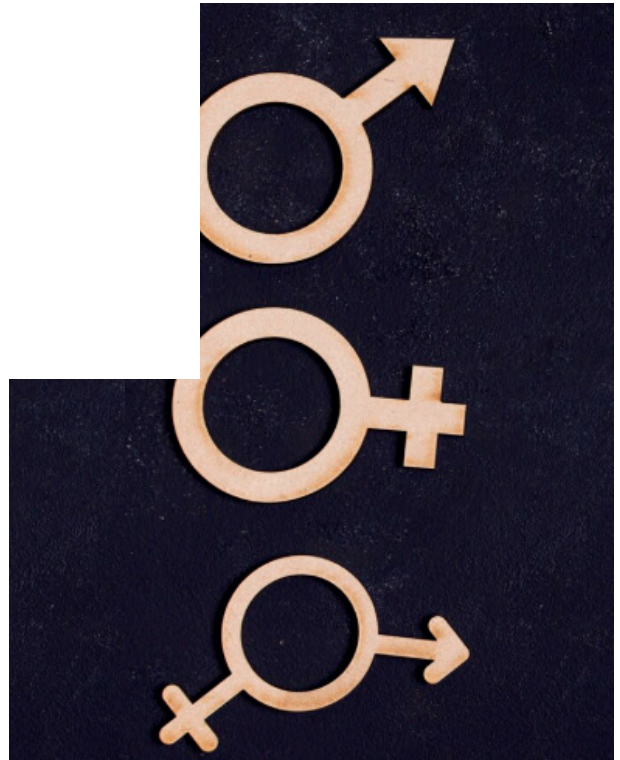
Policy and Implementation Gaps

Despite the presence of laws, quotas, and corporate commitments, progress is undermined by fragmented implementation, weak enforcement, and short-term program design. Many corporate inclusion initiatives operate for only 6–12 months, limiting their ability to produce structural or cultural change. The absence of robust monitoring, cross-sector coordination, and outcome-based metrics further dilutes impact.

Societal Norms and Cultural Barriers

Deeply embedded cultural expectations continue to restrict women's mobility, leadership participation, and career continuity. Stigma surrounding disability and resistance to workplace adaptation slow the adoption of inclusive practices. These societal norms interact with institutional gaps, reinforcing exclusion unless addressed through coordinated awareness, policy enforcement, and leadership accountability.

Opportunities for Scalable Impact

Encouragingly, innovative models across Pakistan—such as digital micro-schools, inclusive skills programs, corporate mentorship initiatives, and adaptive workplace pilots—demonstrate that scalable and sustainable inclusion is achievable. The most successful interventions emerge when the government provides enabling policy and enforcement, industry drives implementation and investment, and communities support outreach and trust-building. Alignment across these three pillars is critical for long-term impact.

Inclusion KPIs: Baseline and 2027 Targets

Indicator	Current Status (2024–25)	Target by 2027
Women in tech leadership roles	~8%	≥20%
Women in the overall tech workforce	~15–17%	≥25%
Persons with disabilities in formal employment	~0.3%	≥1.5% (toward 2% quota)
Educational institutions with accessibility features	<15%	≥40%
Companies with structured D&I policies and KPIs	Limited / ad hoc	≥60% of mid–large tech firms
Inclusion programs exceeding 24 months	Rare	Standard practice

Targets are indicative and intended to guide policy alignment, corporate action, and investment priorities.

05 THEMATIC ANALYSIS OF
CHALLENGES

5.1 Gender Barriers

Women in Pakistan's technology sector confront multiple, interrelated barriers that restrict access to leadership, career continuity, and equitable opportunity. These barriers operate across formal and informal systems—from organizational cultures and networks to societal norms and structural design—creating a "glass ceiling" that persists even in sectors with formal inclusion targets.

Leadership Bias and Representation Gaps

Despite the presence of gender quotas in some domains, women remain vastly underrepresented in decision-making roles within the tech sector. A recent landscape analysis commissioned by P@SHA estimated that to achieve board-level participation aligned with global benchmarks, Pakistan's corporate ecosystem would require approximately 1,000 women with board-ready profiles. Of these, 187 women have been identified, and only 17 are widely recognized within formal leadership pipelines (P@SHA Diversity Report, 2025). This stark gap highlights not a deficit of capability but systemic constraints in leadership development, sponsorship, and visibility.

Professional Networks and Mentorship Access

Access to influential professional networks and mentorship remains limited for women due to cultural norms and workplace segregation. In many organizations, cross-gender mentorship is stigmatized, inhibiting access to senior sponsors who play a critical role in career progression. The absence of cross-gender sponsorship models disproportionately restricts women's access to leadership pipelines and strategic assignments.

Domestic Responsibilities and Time Poverty

Women disproportionately shoulder unpaid domestic and caregiving responsibilities, which affect career continuity, mobility, and work opportunities. National time-use data indicate that women spend approximately five times more hours on unpaid domestic and care work than men, constraining their ability to participate in extended work hours, travel, or career development activities (Pakistan Bureau of Statistics, Time Use Survey, 2023). This "time poverty" effect is exacerbated in dual-career families, single-parent households, and rural communities, further limiting women's full participation in the tech workforce.

Workplace Resistance and Inclusive Culture Gaps

In some workplaces, resistance to reporting to female managers has been documented, signaling deeper cultural and organizational barriers. This resistance underscores the need for targeted counseling, organizational sensitization, and inclusive management training. Without intentional change management and accountability, female leaders may face invisible pushback that undermines their authority, influence, and retention.

Short-Lived Inclusion Programs

Many corporate inclusion initiatives are designed as short-term programs (6–12 months) tied to annual reporting cycles or CSR calendars. Without sustained leadership commitment, long-range funding, and embedded metrics, these programs often fail to produce systemic or cultural change. Continuity and measurement—especially beyond a single reporting period—are essential for moving from symbolic inclusion to operational inclusion.

Business Case for Inclusion

The economic rationale for gender inclusion is well documented. According to McKinsey & Company's Diversity Wins report, organizations with more gender-diverse leadership teams are 27% more likely to outperform their peers on earnings before interest and taxes (EBIT). This correlation between gender diversity and profitability demonstrates that inclusion is not merely a compliance or reputational objective—it is a core business strategy that drives financial performance, innovation, and competitive advantage.

Sector Example: Banking Pipeline Challenges

In the financial sector, the State Bank of Pakistan (SBP) has articulated a 20% women pipeline target for leadership roles in banking. However, this target has been difficult to realize in practice due to low female enrollment in finance and banking programs at the tertiary level and limited early-career pipelines feeding into the sector. This mismatch between educational outcomes and industry targets illustrates how constraints in the broader talent ecosystem—beyond workplace policy—shape workforce realities.

5.2 Disability Inclusion

The landscape for persons with disabilities in Pakistan highlights systemic neglect, reflecting gaps in policy, infrastructure, and workplace practices that collectively limit their participation in education and the labor market.

Policy Fragmentation

While national policies for persons with disabilities exist, including the National Policy for Persons with Disabilities (2022) and the Disabled Persons (Employment and Rehabilitation) Ordinance (1981), implementation is inconsistent across provinces and sectors. This fragmentation results in uneven enforcement of employment quotas, accessibility standards, and inclusion mandates, leaving many persons with disabilities without the protections or opportunities intended by law.

Accessibility Gaps in Education

Educational systems continue to fail to accommodate diverse learning needs:

Deaf students are often blocked from honors-level programs, restricting academic progression.

Visually impaired students lack access to audiobooks and assistive technologies, limiting meaningful engagement with curricula.

Overall, less than 15% of schools provide adequate physical or digital accommodations for persons with disabilities, creating persistent barriers to learning and skills development.

Workforce Inclusion

Participation of persons with disabilities in the formal workforce remains extremely low, with only 0.3% of employees identifying as having a disability, far below the 2% legal employment quota. Employers frequently lack awareness or capacity to provide appropriate accommodations, while societal stigma continues to suppress expectations for the professional contributions of persons with disabilities. These combined factors result in underrepresentation in entry-level, mid-level, and leadership roles.

Neurodiversity

Students with autism spectrum disorders and other neurodiverse conditions encounter educational and workplace environments that fail to recognize or nurture their unique potential. The absence of tailored teaching methods, flexible assessment approaches, or adaptive work practices leaves a significant pool of talent untapped, depriving both individuals and organizations of valuable contributions.

5.3 **Ethnic and Religious Minorities**

Ethnic and religious minorities in Pakistan continue to face systemic underrepresentation in leadership positions, reflecting structural, cultural, and institutional barriers. Although minorities comprise approximately 4% of the national population, they occupy less than 1% of senior leadership roles in the technology sector. This disparity highlights exclusion that persists despite legal protections and diversity commitments.

1. Curricula and Organizational Culture

Organizational norms, workplace culture, and curricula are often aligned with the majority identity, limiting a sense of belonging and opportunity for minority employees. Language, content, and social practices within institutions can reinforce unconscious biases, resulting in lower engagement, restricted career progression, and invisibility of minority contributions.

2. Intersectionality

The impact of identity barriers is compounded for those facing multiple dimensions of marginalization. For example, minority women or persons with disabilities experience overlapping constraints related to gender, ability, and ethnic/religious identity. These intersectional barriers restrict access to mentorship, sponsorship, and leadership pipelines, leaving many qualified individuals without equitable opportunities for advancement.

3. Inclusion of Transgender Persons (Khwaja Sira Community)

Transgender persons, including the Khwaja Sira community, face extreme marginalization across education, employment, and leadership pathways. Social stigma, limited legal protections, and cultural exclusion restrict participation in formal workplaces. In the technology sector, transgender representation remains nearly non-existent, reflecting broader societal barriers to skill development, employment, and leadership.

4. KPI for Transgender Inclusion

Indicator	Current Status (2025)	Target by 2027
Transgender persons in the tech workforce	<0.1%	≥0.5% (entry-level pipeline focus)

Efforts to promote transgender inclusion require targeted policy interventions, workplace sensitization, and partnerships with civil society, along with structured programs for education-to-employment transitions. Such measures will help integrate transgender talent into the formal economy and contribute to a truly inclusive sector.

5.3 **Education and Skills Pipeline**

The talent pipeline feeding Pakistan's technology sector faces systemic gaps across curriculum design, skills development, and access to practical learning opportunities. These challenges disproportionately affect marginalized learners, including women, persons with disabilities, and ethnic/religious minorities.

1. Curricular Misalignment

Current IT and computer science programs in universities are 3–5 years behind evolving industry requirements, leading to graduates who lack exposure to contemporary technologies and frameworks (P@SHA Skills Survey, 2024; World Bank, 2023). This misalignment limits employability and increases onboarding and retraining costs for employers.

Rough Cost for Curriculum Modernization

Low: Update syllabus with modular electives and soft skills integration (minor adjustments)
Medium: Incorporate hands-on labs, industry projects, and faculty training
High: Full-scale digital infrastructure upgrade, work-integrated learning platforms, and nationwide faculty capacity-building programs

2. Soft Skills Deficit

Employers report that only 35% of new graduates demonstrate adequate communication, teamwork, or adaptability skills (P@SHA Skills Survey, 2024). This deficit hinders performance in collaborative and client-facing roles, reducing productivity and limiting career progression, especially for marginalized students who lack access to mentoring and experiential learning opportunities.

3. Digital Access Barriers

Access to digital learning remains uneven. Rural girls frequently lack mobile devices and reliable internet connectivity, preventing meaningful participation in online learning platforms and hybrid educational programs. These constraints reinforce existing gender gaps in IT literacy and workforce readiness.

4. Vocational and Work-Integrated Learning Gaps

Career counseling, internships, apprenticeships, and vocational training for marginalized learners remain insufficient or poorly coordinated. Without structured pathways from education to employment, young women, persons with disabilities, and minority students are less likely to secure meaningful employment in competitive technology roles.

5. Implications

Unless addressed, these gaps will continue to constrain the diversity, inclusion, and quality of the talent pool, undermining both industry growth and national competitiveness in the digital economy. Investments in curriculum modernization, soft skills development, and accessible learning infrastructure are critical to enable equitable workforce participation and sustained sectoral growth.

5.5 **Policy and Structural Gaps**

Progress on diversity and inclusion in Pakistan is constrained by fragmented governance, weak enforcement, and limited transparency, resulting in uneven implementation of policies across sectors.

01 Fragmented Governance

— Overlapping mandates across federal and provincial ministries, regulatory bodies, and education agencies often lead to conflicting priorities and inefficiencies. For instance, responsibilities for inclusive education, labor rights, and ICT development are dispersed across multiple departments, reducing accountability and slowing coordinated action.

02 Weak Enforcement

— While anti-discrimination and inclusion laws exist—including the Protection Against Harassment of Women at the Workplace Act (2010), the Disabled Persons (Employment and Rehabilitation) Ordinance (1981), and provincial accessibility codes—their enforcement remains weak. Many organizations lack structured compliance mechanisms, leaving marginalized groups without effective protection or redress.

03 Limited Data Transparency

— Most organizations do not track or publicly report diversity metrics, including workforce composition by gender, disability status, ethnic/religious identity, or transgender representation. The absence of standardized reporting inhibits benchmarking, accountability, and strategic planning for inclusive talent pipelines.

04 Accessibility Laws and Codes

— In addition to employment laws, several codes and regulations address physical and digital accessibility, such as provincial building codes mandating ramps and accessible facilities. However, compliance is uneven, and enforcement mechanisms are limited, especially in rural or private institutions.

05 Risk Considerations

— Implementing inclusion initiatives without proper planning can expose organizations to operational, reputational, and legal risks. Key risk areas include:

Risk Type	Description	Mitigation
Backlash	Resistance from employees or communities opposed to rapid inclusion changes	Sensitization workshops, inclusive communication campaigns
Security	Privacy risks when collecting personal data on disability, gender, or minority status	Data anonymization, secure storage, and access protocols
Legal Compliance	Misinterpretation or incomplete application of laws	Regular audits, legal review, and alignment with national and international standards

By proactively addressing these gaps and risks, organizations and policymakers can strengthen inclusion frameworks, improve compliance, and foster trust among stakeholders.

5.6 **Societal and Cultural Barriers**

Beyond formal policies and organizational practices, societal and cultural norms play a decisive role in shaping inclusion outcomes in Pakistan. These deeply ingrained norms often limit women's mobility, leadership opportunities, and participation in public life, particularly in conservative or rural areas. Even highly qualified women may face skepticism or subtle resistance when pursuing managerial or executive roles, reinforcing systemic inequalities despite formal quotas or corporate programs.

Disability is similarly stigmatized, with persons with disabilities frequently perceived as dependents rather than contributors. This cultural lens influences both education and employment, leading to low expectations, limited accommodations, and social exclusion. Families, peers, and employers may unconsciously reinforce barriers, curbing opportunities for persons with disabilities to participate fully in economic and civic life.

At the community level, resistance to change slows the adoption of inclusive practices, whether through localized biases, misconceptions about gender roles, or cultural reluctance to accept diversity in leadership.

Finally, intersectional discrimination compounds these challenges. Women from ethnic or religious minorities, or women with disabilities, face overlapping barriers that limit access to mentorship, sponsorship, education, and career advancement. These multilayered obstacles create a landscape where talent exists but is too often underutilized and undervalued, underscoring the need for comprehensive strategies that address both structural and cultural dimensions of inclusion.
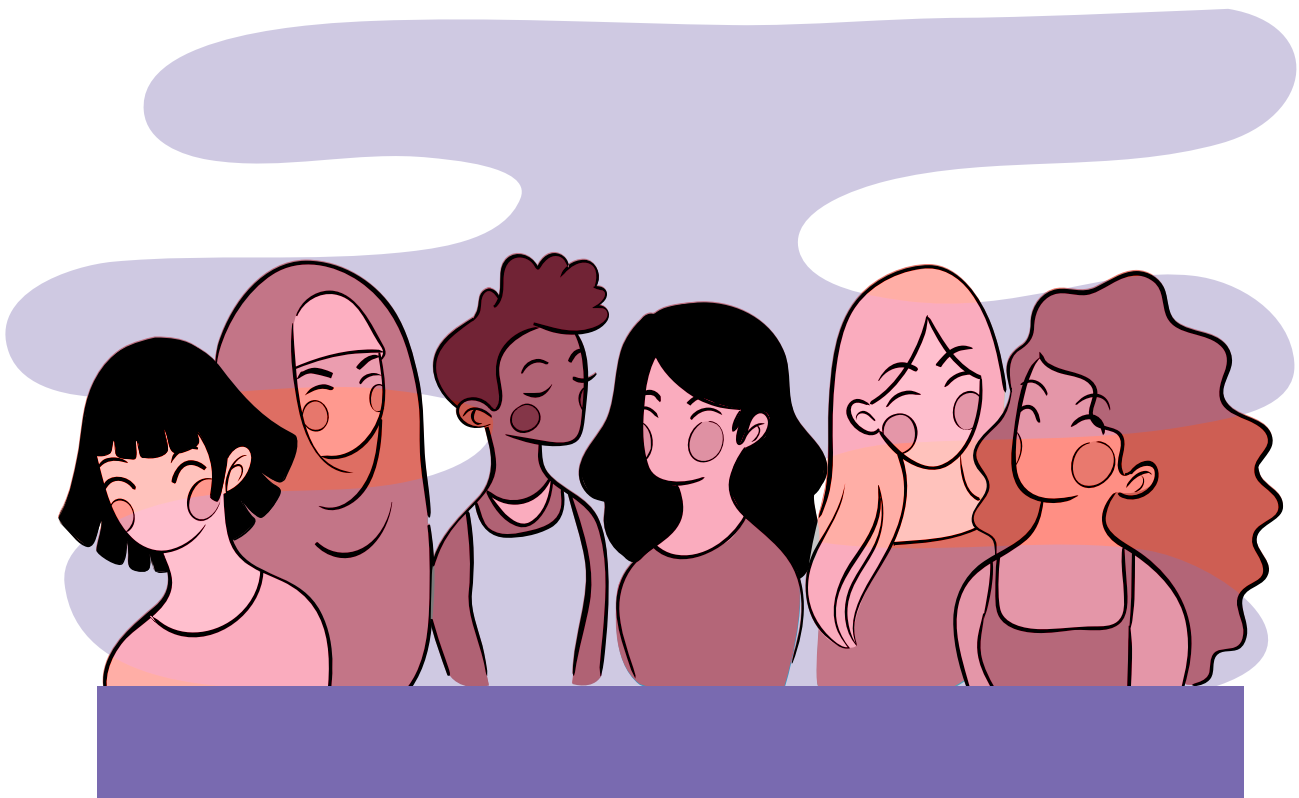
06 EMERGING PRACTICES & SUCCESS STORIES

Despite systemic barriers, Pakistan's technology sector and allied education initiatives have demonstrated innovative and scalable approaches to inclusion. These practices highlight pathways to transform policy intent into measurable impact.

6.1 Digital and Community-Based Learning

Community-driven and technology-enabled learning programs are bridging access gaps for marginalized students, particularly girls and out-of-school learners.

Teach the World Foundation (TTWF) provides a compelling example:

- **100 micro-schools,** each 200 sq. ft., delivering education within local communities
- **Three 40-minute sessions per day** tailored to foundational literacy and numeracy
- **52% girls** among enrolled students
- Over **10,000 teachers trained,** reaching **50,000+ students** nationwide

These models are highly scalable and effective in addressing gender, geographic, and socio-economic barriers, demonstrating that even resource-constrained interventions can yield significant impact.

6.2 Organizational Inclusion Practices

Progressive organizations are connecting diversity and inclusion policies with everyday practices, creating environments where all employees can thrive. Key initiatives include:

- **Mentorship and Skill-Building:** Structured programs pairing senior leaders with women, minorities, and persons with disabilities, ensuring skills transfer, career guidance, and access to networks.
- **Role Modeling:** Visibility of diverse leaders inspires aspirational pathways and normalizes inclusion at every organizational level.
- **Flexible Work Policies:** Beyond remote work and parental leave, leading firms offer flexible hours, childcare support, cultural holidays, and accessibility accommodations, enabling retention and progression of marginalized talent.
- **Anti-Discrimination Policies:** Comprehensive frameworks with clear reporting mechanisms, training modules, and Employee Resource Groups (ERGs) reinforce a culture of inclusion and accountability.

Supplier Diversity Spend: Currently, most organizations do not have a formal supplier-diversity spend, reflecting a baseline that needs to be established and tracked as part of broader inclusion strategies.

6.3 Corporate Case Examples

Several organizations have implemented targeted inclusion programs with measurable results:

- **Systems Limited – "EmpowerHer":** Mentorship, career re-entry programs, and inclusive hiring practices resulted in a 25% increase in female managerial representation (2022–2024).
- **Engro/Thar Projects:** Women were successfully integrated into non-traditional roles in challenging environments, demonstrating that industry can actively expand access for women even in conservative or operationally demanding contexts.

6.4 Cross-Sector Collaborations

Multi-stakeholder partnerships are proving essential for scalable and sustainable inclusion:

- Collaboration between P@SHA, HEC, and social enterprises such as DeafTawk and WonderTree illustrates how education, technology, and employment initiatives can be integrated to create pathways for underrepresented groups.
- These ecosystems leverage community engagement, skill-building, mentorship, and technology to support meaningful participation of women, minorities, and persons with disabilities in Pakistan's digital economy.

07 LEGAL AND POLICY
FRAMEWORKS
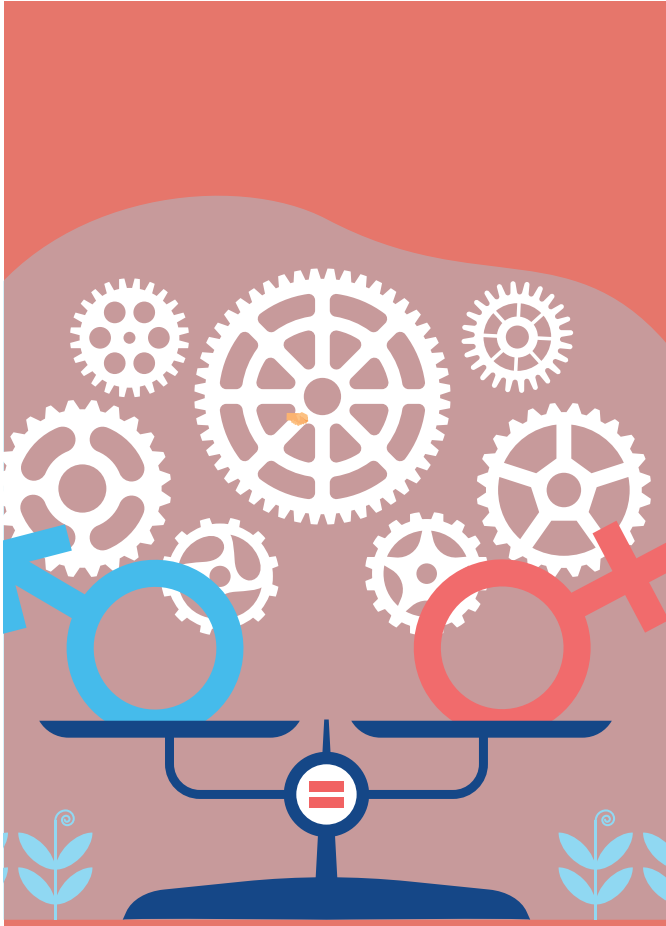
A robust understanding of Pakistan's legal and policy landscape is essential to advancing diversity and inclusion across the technology sector. This section outlines key frameworks for women, persons with disabilities, and minorities, as well as relevant international commitments.

7.1 **Women**

Protection Against Harassment of Women at Workplace Act (2010):

Establishes mechanisms for preventing sexual harassment in workplaces, including complaint procedures, inquiry committees, and employer responsibilities.

Punjab Gender Parity and Women's Empowerment Strategy (2025):

Provides a provincial roadmap to increase women's labor force participation, leadership representation, and access to safe, inclusive workplaces.

7.2 **Persons with Disabilities**

○ **Disabled Persons (Employment and Rehabilitation) Ordinance, 1981:** Full Text of the Ordinance Requires employers to reserve at least 2% of positions for persons with disabilities and sets obligations for workplace accessibility.

○ **National Policy for Persons with Disabilities (2022):** Provides a comprehensive framework for inclusive education, employment rights, accessibility standards, and social protection, aiming to address systemic barriers faced by persons with disabilities in Pakistan.

7.3 **Minorities**

○ **Constitution of Pakistan, Article 25:** Guarantees equality of all citizens and prohibits discrimination on grounds including religion, ethnicity, or gender.

○ **Protection Against Discrimination (Draft Bill):** Currently under consultation, this proposed legislation seeks to explicitly outlaw employment discrimination against minorities, reinforcing constitutional protections.

7.4 **International Commitments**

Pakistan has ratified multiple international conventions that guide national policy and corporate practice on inclusion:

○ **CEDAW (Convention on the Elimination of All Forms of Discrimination Against Women):** Obligates Pakistan to eliminate gender discrimination and promote equal opportunities in education, employment, and leadership.

○ **CRPD (Convention on the Rights of Persons with Disabilities):** Commits Pakistan to ensuring the full participation of persons with disabilities in society, including access to education, employment, and inclusive environments.

By aligning corporate practices with these national laws, provincial policies, and international commitments, organizations can strengthen compliance, reduce legal risk, and foster systemic inclusion in Pakistan's tech ecosystem.

08 STRATEGIC
RECOMMENDATIONS

8.1 Governance and Policy Coherence

Effective diversity and inclusion (D&I) initiatives require strong governance structures and policy alignment across federal, provincial, and organizational levels. Fragmented mandates and weak coordination have historically slowed progress, but targeted interventions can create systemic impact.

Key Actions

Inter-Ministerial Council on Inclusive Growth	Establish a cross-sector council linking Education, Labor, and ICT ministries to harmonize policies, set national inclusion targets, and oversee implementation across sectors.
Provincial Action Plans	Align provincial strategies with SDG 5 (Gender Equality) and SDG 8 (Decent Work and Economic Growth), ensuring local priorities are contextualized and actionable.
Standardization of Reporting	Introduce consistent data collection and reporting protocols to measure representation, progression, and program effectiveness.

Narrative Context

By centralizing governance and linking policy across ministries, Pakistan can translate inclusion commitments into measurable outcomes. For example, coordinated oversight ensures that education policies, employment quotas, and digital literacy programs work together, rather than in isolation, amplifying the impact of each initiative.

8.2 **Education and Skills Pipeline**

A robust, inclusive talent pipeline is the backbone of Pakistan's technology sector. Current gaps in curricula, skill-building, and experiential learning disproportionately impact women, persons with disabilities, and minority students, leaving a wealth of potential untapped.

Key Actions

Curriculum Modernization	Regularly update IT and tech-related programs with direct industry input, ensuring alignment with contemporary and emerging technologies such as artificial intelligence, cybersecurity, cloud computing, and data analytics. This approach keeps graduates job-ready and equipped for high-value roles.
Soft Skills & Career Readiness	Integrate modules on communication, teamwork, adaptability, and professional ethics, alongside digital literacy and career guidance, to prepare students for diverse workplace environments.
Experiential Learning	Expand internships, apprenticeships, and industry mentorship programs, particularly targeting marginalized youth. Hands-on experience allows students to apply classroom learning, build networks, and gain confidence in professional settings.
Emerging Tech Inclusion	Special focus on emerging technologies ensures that all learners, including women and persons with disabilities, gain early exposure to high-demand skill areas, reducing future gaps in leadership and innovation roles.

Narrative Context

By bridging education and industry, Pakistan can ensure that its workforce is not only diverse but also equipped to drive innovation in cutting-edge technology sectors. Programs that combine technical training, soft skills, and inclusive access empower students to navigate systemic barriers, while hands-on opportunities in real-world environments foster confidence, competence, and career progression.

8.3 **Inclusive Workplace Culture**

Building an inclusive workplace culture is critical for translating policy intent into everyday practice. Organizations must move beyond compliance, embedding diversity, equity, and inclusion (DEI) into the core of their operations, decision-making, and leadership pipelines.

Key Actions

Normalize Leadership Diversity	Promote women, ethnic and religious minorities, and persons with disabilities into decision-making and executive roles. Visibility of diverse leaders signals opportunity, challenges stereotypes, and creates aspirational pathways for emerging talent.
Bias Audits and Inclusive Recruitment	Conduct regular audits to identify and mitigate unconscious bias in recruitment, performance evaluation, and promotion processes. Institutionalize skill-based hiring practices that focus on capabilities rather than demographics or background, ensuring meritocracy and fairness.
Sponsorship Programs	Launch structured sponsorship initiatives pairing senior leaders with high-potential underrepresented talent. Unlike mentorship, sponsorship actively advocates for career opportunities, promotions, and visibility, accelerating progression for women, minorities, and persons with disabilities.
Cultural Integration	Embed DEI values across policies, from onboarding and training to performance management and recognition programs, ensuring that inclusive behaviors become part of the organizational DNA.

Narrative Context

An inclusive workplace is not merely a compliance requirement—it is a strategic enabler of innovation, retention, and growth. Employees who see themselves represented at senior levels, have equitable access to opportunities, and experience an environment free of bias are more likely to contribute fully, drive collaboration, and deliver superior business outcomes. By normalizing inclusion, organizations not only fulfill social responsibilities but also enhance organizational resilience and competitiveness in Pakistan's evolving digital economy.

8.4 **Measurement and Transparency**

Transparent measurement and reporting are essential to ensure accountability and track progress in diversity and inclusion initiatives. Without robust metrics, well-intentioned programs risk remaining symbolic rather than transformative.

Key Actions

Mandatory Diversity Reporting	Require all SECP-registered companies to report annually on diversity metrics, including workforce composition, recruitment, retention, promotion, and leadership representation. Reporting should cover gender, ethnic/religious minorities, persons with disabilities, and other underrepresented groups.
Track Critical KPIs	Include key indicators such as board-level representation, National Assembly seats, public sector leadership roles, and other relevant benchmarks. This provides a national and sectoral snapshot of progress toward inclusion targets.
Align with ISO 30415	Companies should adopt the ISO 30415: Human Resource Management – Diversity and Inclusion indicators, which cover:

- ○ **Policy & Strategy:** Existence and clarity of D&I policiesto education, employment, and inclusive environments.
- ○ **Recruitment & Selection:** Inclusive hiring practices
- ○ **Development & Advancement:** Access to mentorship, sponsorship, and promotion opportunities
- ○ **Culture & Environment:** Organizational culture that fosters belonging
- ○ **Measurement & Reporting:** Data collection, monitoring, and transparency

External Verification	Engage reputable external auditors such as ICAP (Institute of Chartered Accountants of Pakistan) or ACCA (Association of Chartered Certified Accountants) to validate reporting, ensuring credibility, consistency, and comparability of data.
Annual Progress Reports	Publicly disseminate D&I progress reports to foster accountability, encourage sectoral benchmarking, and inspire continuous improvement.

Narrative Context

By integrating ISO-aligned indicators and external auditing, organizations move beyond internal monitoring, creating trust with stakeholders and reinforcing the business and social case for inclusion. Transparent reporting highlights successes, identifies gaps, and drives evidence-based interventions, allowing Pakistan's tech sector to systematically build inclusive talent pipelines and equitable leadership structures.

8.5 **Community and Civil Society Engagement**

Inclusion extends beyond corporate walls and policy frameworks—it requires active engagement with communities and civil society to create lasting change. Grassroots initiatives, partnerships, and advocacy campaigns amplify impact and ensure that underrepresented groups gain equitable access to education, employment, and leadership opportunities.

Key Actions

Partnerships with NGOs and Local Networks

Collaborate with organizations that have deep community reach and expertise in gender, disability, and minority inclusion. These partnerships can facilitate micro-schools, vocational training, digital literacy programs, and mentorship initiatives, particularly in underserved rural and semi-urban areas.

Role Modeling and Success Stories

Identify and spotlight local leaders and community champions, showcasing women, persons with disabilities, and minority professionals who have successfully navigated systemic barriers. These stories inspire aspirational pathways, challenge stereotypes, and build confidence among the next generation of talent.

Digital Storytelling and Advocacy

Leverage social media, video campaigns, and online learning platforms to raise awareness, normalize inclusion, and shift societal perceptions. Storytelling can humanize challenges, celebrate achievements, and mobilize public support for systemic change.

Community Feedback Loops

Establish channels for continuous engagement and feedback, enabling programs to remain responsive to local needs, culturally sensitive, and scalable across regions.

Narrative Context

By actively engaging civil society and communities, Pakistan can bridge the gap between policy and lived experience. Inclusion becomes tangible, visible, and aspirational, allowing the tech sector—and society at large—to benefit from the full potential of its diverse talent pool. When industry, government, and civil society collaborate, the result is sustainable empowerment and systemic transformation, creating pathways for women, minorities, and persons with disabilities to thrive.

09 IMPLEMENTATION
ROADMAP (2025–2027)

Implementation Roadmap (2025-2027)
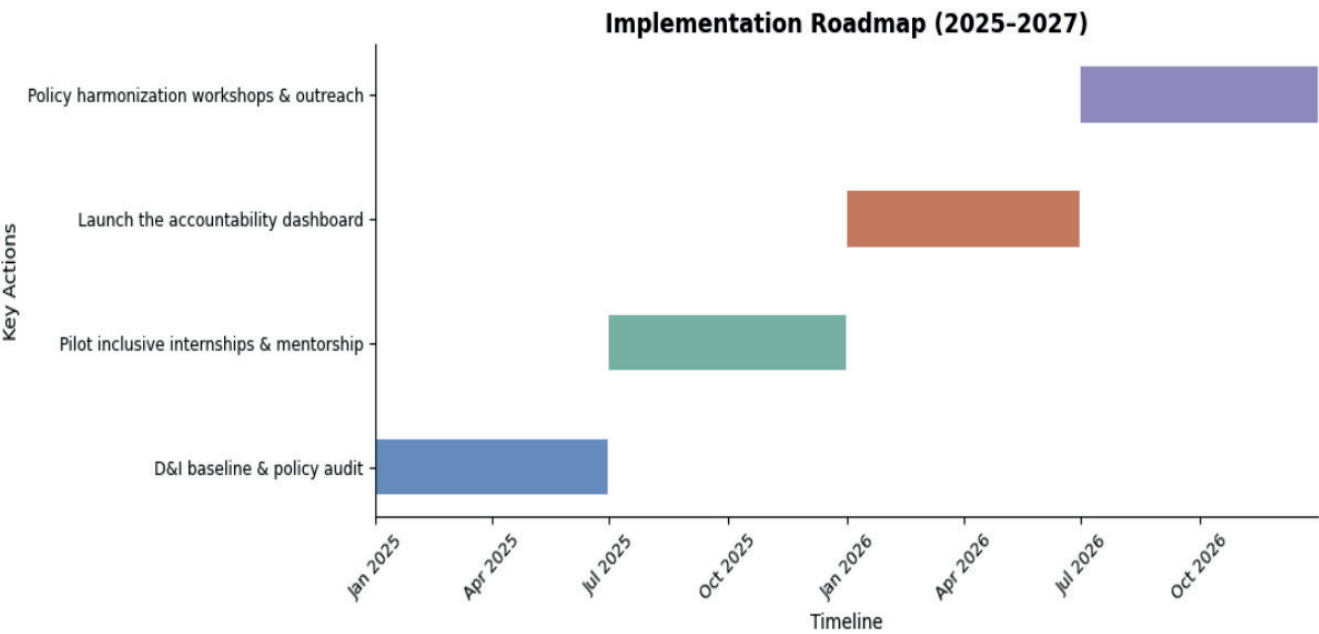
10 CALL TO ACTION

True inclusion is not a symbolic gesture or a compliance checkbox—it is a strategic imperative for Pakistan's digital economy. The nation's technology sector can only achieve its full potential when every talented individual, regardless of gender, disability, ethnicity, or background, is empowered to contribute, innovate, and lead.

For Policymakers

○ Embed diversity and inclusion as a core element of national and provincial digital economy strategies.
○ Strengthen enforcement of existing laws and close policy gaps that hinder equitable participation.
○ Support scalable programs that bridge education and industry, particularly for underrepresented communities.

For Educators and Academia

○ Design curricula and learning environments that reflect diversity, equity, and accessibility.
○ Equip students with both technical and soft skills, preparing them for inclusive workplaces.
○ Partner with industry to provide internships, apprenticeships, and mentorship for marginalized learners.

For Organizations

○ Integrate inclusion into business strategy, leadership development, and daily operations.
○ Commit to measurable targets, such as those outlined in the Diversity Pledge, and track progress through transparent reporting.
○ Build inclusive cultures that value diverse perspectives, provide equitable opportunity, and support career progression for all talent.

For Investors and Development Partners

○ Recognize that diverse, inclusive teams outperform homogeneous teams in innovation, productivity, and financial performance (e.g., 27% higher EBIT for diverse leadership, McKinsey 2020).
○ Align investments with organizations that prioritize inclusion, thereby driving both social impact and business return.

The P@SHA Call

P@SHA urges industry, government, academia, and civil society to unite behind a shared vision: a technology sector that is fully inclusive, equitable, and globally competitive. By committing to the Diversity Pledge, implementing the white paper recommendations, and tracking outcomes transparently, Pakistan can unlock the full potential of its human capital, ensuring economic growth, social equity, and a future-ready digital workforce.

11 REFERENCES

Engro Foundation. (2023). Women in non-traditional roles: Case study of Thar Projects. Retrieved December 10, 2025, from https://www.engrofoundation.org/thar-projects

International Labour Organization. (2024). Women in leadership report 2024. Geneva: ILO. https://www.ilo.org/global/publications/books/WCMS_844432/lang--en/index.htm

McKinsey & Company. (2020). Diversity wins: How inclusion matters. https://www.mckinsey.com/business-functions/organization/our-insights/diversity-wins-how-inclusion-matters

Pakistan Bureau of Statistics. (2023). Labour Force Survey 2023. Islamabad: Government of Pakistan. https://www.pbs.gov.pk/content/labour-force-survey P@SHA. (2024). Skills survey report 2024. Pakistan Software Houses Association. Internal publication.

State Bank of Pakistan. (2024). Women's pipeline in finance sector: Statistics and targets. Islamabad: SBP. https://www.sbp.org.pk/reports

Teach the World Foundation. (2025). Annual impact report: Digital micro-schools and teacher training in Pakistan. Karachi: TTWF. https://www.teachtheworldfoundation.org/impactUNESCO. (2022).

Education for all in South Asia: Progress and challenges. Paris: UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000375452

United Nations Development Programme. (2024). Human Development Report 2024: Beyond averages—Breaking barriers. New York: UNDP. https://hdr.undp.org/content/human-development-report-2024

ISO. (2021). ISO 30415: Human resource management – Diversity and inclusion. Geneva: International Organization for Standardization. https://www.iso.org/standard/77666.html

Constitution of Pakistan. (1973). Constitution of the Islamic Republic of Pakistan, Article 25: Equality of citizens. Government of Pakistan. https://www.pakistani.org/pakistan/constitution/

Disabled Persons (Employment and Rehabilitation) Ordinance, 1981. (1981). Government of Pakistan. Full text: https://www.na.gov.pk/uploads/documents/1349270480_464.pdf

Protection Against Harassment of Women at Workplace Act, 2010. Government of Pakistan. https://www.na.gov.pk/uploads/documents/1288294542_317.pdf

National Policy for Persons with Disabilities, 2022. Ministry of Human Rights, Pakistan. https://www.humanrights.gov.pk/policy/pwd

SECP. (2025). Board-level representation statistics and annual reports. Securities and Exchange Commission of Pakistan. https://www.secp.gov.pk/publications

World Bank. (2023). Inclusive growth diagnostics: Pakistan. Washington, DC: World Bank. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/63232162325432865

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