ROUND TABLE DISCUSSION

DATA IS POWER

TOWARDS A DATA INFORMED NATION

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INSTITUTE FOR STRATEGIC STUDIES, RESEARCH & ANALYSIS

Conversations

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POST EVENT REPORT
ROUNDTABLE DISCUSSION

DATA IS POWER:
TOWARDS A DATA INFORMED NATION

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Introduction

In today's rapidly evolving digital landscape, data is central to national development, underpinning policy decisions across security, economic growth, and social welfare. While advanced economies leverage data to design precise and responsive policies, Pakistan continues to face systemic challenges in data availability, accessibility, and utilisation. Fragmented data ecosystems, outdated and siloed datasets, overreliance on external sources, and regulatory barriers undermine evidence-based policymaking.

Recognising the urgency to address these gaps, on **29 April 2025,** the **Institute for Strategic Studies, Research and Analysis (ISSRA), National Defence University (NDU)** convened a high-level roundtable discussion. The discussion featured 4 key themes, presented by four distinguished speakers;

- Data Accessibility and Challenges: Private Sector Perspective by Dr Seemab Latif, CEO Awaaz
- Management and Accessibility of Data For Research Purposes: International Perspective by Dr Abid Hussain, Professor, Copenhagen Business School
- Indigenous Data Availability vs Foreign Dependencies: Domestic Perspective by Dr Naeem Uz Zafar, Chief Statistician, Pakistan Bureau of Statistics
- Data Accessibility and Challenges: Public Sector Perspective by Dr Monis Akhlaq, NADRA
- And the moderator, Mr Ather Imran Nawaz, CEO Sybrid.

The event brought together policymakers, researchers, and industry leaders to explore practical ways to strengthen Pakistan's data infrastructure, enhance public-private collaboration, and promote a transparent, data-driven policy environment to support national progress.

Key Takeaways

- Pakistan possesses a vast reservoir of indigenous data across both public and private sectors. However, this data remains underutilised due to fragmentation, a lack of coordination, and limited development of use cases.

- Government departments in Pakistan often operate in silos, with limited data sharing and a culture of mistrust, thereby limiting the data utilization. Therefore, a unified framework with privacy safeguards and engagement protocols is needed to enable collaboration and maximise the public sector's data value.

- Inconsistent data collection methods and revision schedules, across institutions, undermine usability. An integrated data framework is essential to reduce duplication, streamline updates, and improve data coherence.

- Limited data accessibility remains a key barrier in Pakistan. Adopting global best practices like open data initiatives can enhance access, reliability, and the impact of its data usability.

- There is a need to streamline data usage across sectors. Achieving this requires a decentralised data architecture supported by a unified governance framework, to reduce regulatory overlaps and enhance secure data sharing.

- Ensuring data sovereignty is essential. Sensitive data should be stored within secure, government-managed infrastructure to safeguard privacy and national interests.

- Public-private data sharing can unlock smarter policymaking in critical areas like health, urban planning, and financial inclusion. Therefore, building trusted collaboration between platforms requires active stewardship by regulators and industry bodies.

- Public institutions need to enhance communication strategies to ensure that data regulations, platforms, and services are well understood, accessible, and effectively utilised.

- To foster a data-driven society, data literacy must be embedded in the education system, equipping students with the skills to understand, interpret, and responsibly use data across sectors.

- It is high time to de-weaponise data, the public and private sector needs to develop trust, access and integrate databases. Collaborative access and integration will unlock the full developmental value of existing datasets.

Summary of The Proceedings

- Three prime problems relating to data are its accessibility, reliance on foreign data and classification of data, and in light of this Pakistan needs to develop best practice for better administration of state affairs.

- In Pakistan, the biggest sign that it isn't a data-driven economy is not just found in reports or surveys, but in the lack of major cloud companies, very few startups built around data, and the large part of the economy that still operates without proper records.

- Pakistan's lack of major cloud infrastructure reflects its low data maturity. Unlike regional hubs like Riyadh and Abu Dhabi that attract global cloud providers due to high volumes of digital activity, Pakistan still lacks the scale of digital data generation needed to justify such investment.

- Pakistan's startup ecosystem reveals a deeper gap in data infrastructure. In digitally advanced markets, startups are increasingly built entirely around data. In contrast, Pakistan sees few such ventures, not due to lack of talent, but due to the absence of clean, accessible, and abundant data.

- Public-Private data collaboration platforms offer a transformative opportunity for Pakistan, enabling secure, anonymised data sharing to drive smarter policymaking in areas like urban planning, healthcare, and financial inclusion. Realising this potential demands robust governance, clear technical standards, and institutional trust, roles well-suited to regulators, think tanks, and industry associations.

- Robust data management practices, ensuring data quality, standardised metadata, and secure access are critical for evidence-based policymaking. Without these foundations, data remains fragmented and underutilised across government institutions.

- Global data presents Pakistan's research production to be low but there is a positive sign as the Q1 research production is more than 28% of the global research. Which is indicative of Pakistan's research quality but lack of sophisticated data has limited the desired growth.

- National progress depends on shared responsibility, government must build trustable frameworks and infrastructure, organisations must support collaboration and data openness; and researchers must uphold integrity, transparency, and continuous learning.

- Internationally open data initiatives are being practiced to enhance the access, reliability and usage of data for enhancing governance frameworks. These open data initiatives will not only generate transparency for governance but will also enhance research productivity across the sectors.

- Pakistan needs to create a culture of data sharing, generating trust among the departments and the public. This trust will only be fruitful if the stakeholders first address the issue of data privacy and develop a privacy framework to establish a policy of engagement with data stakeholders.

- In Pakistan, Pakistan Bureau of Statistics (PBS) and NADRA stand as two largest data centers, with more than 40 million houses geo-referenced data, but the issue is of coordination among government entities.

- Data itself is nothing unless it is adequately used to enhance productivity; there is a need to create business cases for diverse sectors, ranging from agriculture, governance and entrepreneurship, supply chain, creation of digital platforms to enhance policy efficacy.

- Technological progress has made data collection and analysis more efficient, but without a clear, policy-driven vision for its use, the potential remains untapped. It is essential to align data capabilities with national priorities to generate actionable insights and support evidence-based policymaking.

- Public sector data collection and its aggregate access is readily available for users. NADRA holds the largest database of personal identifiable information including biometric data of Pakistani citizen.

- Effective public sector data access in Pakistan is hindered by regulatory tensions, outdated IT infrastructure, lack of standardisation, bureaucratic barriers, and limited data literacy calling for a unified national data governance framework to unlock its full potential.

- Balancing transparency with privacy is a key challenge in public sector data sharing, as existing laws restrict access while new policies promote openness. Establishing a national data governance framework offers a vital opportunity to align these regulations and enable secure, responsible data use.

- Outdated IT systems in public institutions limit effective data extraction and integration. Modernizing these systems is a critical opportunity to build a foundation for improved data accessibility and digital governance.

- Lack of data standardisation hampers interoperability across sectors. Implementing national data standards under the Digital Nation Pakistan Act 2025 presents a key opportunity to unify data formats and enhance cross-sector collaboration.

- Data initiatives in Pakistan are hindered by regulatory complexity, unclear laws, slow

procedures, and resistance within institutions due to political concerns and risk-averse mindsets. Clear, nationally coordinated policy frameworks are crucial to overcome these barriers and ensure timely, effective data sharing for better public services.

- Although data is accessible, a lack of awareness and capacity to effectively analyse it limits research outcomes and civic improvements. Establishing a centralised, user-friendly data repository is essential to enhance transparency, usability, and the overall impact of public data.

- While Pakistan's data ecosystem has faced challenges like institutional silos and resistance, initiatives by the Ministry of Planning, such as the Intelligent Project Automation System (IPAS), demonstrate progress in data digitization and accessibility. These efforts reflect growing institutional readiness and improve project monitoring and effectiveness.

- Coordination between public sectors is crucial to improving data-sharing, but institutional and cultural barriers continue to exist. These barriers are often more about mindset and fear of transparency than technical challenges. The lack of coordination creates discrepancies in data reporting, making it difficult for researchers and policymakers to access reliable information.

- In recent years, Pakistan has made progress in establishing "Open Data Pakistan" to help provide open data to all kinds of users, such as researchers, policymakers, communities, and businesses but the initiative is hindered by the lack of culture of data openness in the country, which needs to be installed through policy measures.

- Generative AI has fundamentally transformed the informational pillar of decision making but it is biased towards western datasets. This is primarily because of unavailability of indigenous data for Large Learning Models, thus limiting not just the usage of modern technology but also increasing our vulnerability towards decisions that are non-reflective of genuine issues.

- Pakistan's data landscape exists in stark contrast with the international practices. Internationally, government departments are more inclined towards offloading data to a centralized system but in Pakistan departments draw a sense of power and authority in hoarding data. This not only limits the scope of solutions but also negates the effectiveness of developing technological solutions for enhanced effectiveness.

- In the development sector, integrating interdisciplinary datasets, such as combining environmental, health, and economic data, is necessary to tackle complex issues like environmental security. However, without reliable and structured data, meaningful solutions remain elusive.

- Inconsistent data collection and update frequencies across institutions contribute to temporal fragmentation, making it difficult to integrate, compare, and utilize data effectively for timely and informed decision-making. Therefore, there is a need to develop an integrated public and private sector data, in order to corroborate the available data and reduce inconsistencies in its usage.

- A decentralized data structure with controlled access, along with a strong data protection law, would facilitate data sharing while protecting privacy. In this regard, data ranging from demographics, economics to ecological can be readily made available for developing accurate yet useful business cases.

- Pakistan has a very intrinsic data landscape model, where IT is a provincial subject and each province has devised its own line of data management, we need to develop one landscape for data governance, with layers of management models working in perfect synergy.

- The absence of a dedicated data governance authority has created regulatory gaps and overlaps in Pakistan. While the Digital Pakistan Authority is a step forward, it lacks the mandate to address these issues fully, highlighting the need for a specialized body to standardize data sharing and enable cross-sector coordination.

- Accepting foreign-generated information and indices at face value is problematic, as these too are shaped by geopolitical interests. Pakistan needs to develop its own credible, indigenous data systems and assessment mechanisms rather than relying solely on external benchmarks, which can be volatile or politically biased.

Conclusion

The roundtable underscored that despite having valuable data assets, Pakistan continues to face systemic challenges stemming from fragmented systems, regulatory overlaps, outdated infrastructure, and institutional silos. These issues constrain the country's ability to fully leverage data for evidence-based policymaking, innovation, and economic growth. Building trust between public and private stakeholders, enhancing interoperability, and ensuring secure, standardised data sharing must now become national priorities. Moving forward, the establishment of a robust and coordinated data governance framework—supported by legal clarity, modern infrastructure, and a shared vision for data as a public good—will reflect that data is not just a tool, but 'Data is Power, that engines an informed and progressive nation'.

Picture Gallery

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