PAKISTAN BUREAU OF STATISTICS
Government of Pakistan

PBS Datafest

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DataFest 2024

A Pioneering Event

"Unleashing the power of data for development & empowering decisions with data"
(21st & 22nd October 2024)

Pak-China Friendship Centre, Garden Avenue,
Shakarparian Road, Islamabad

DATA FEST 2024

UNLEASHING THE POWER OF DATA FOR DEVELOPMENT

October 21, 2024 | October 22, 2024

PAKISTAN BUREAU OF STATISTICS
Government of Pakistan

Pakistan Bureau of Statistics
Ministry of Planning and Development & Special Initiatives

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About the Festival

National Data Fest 2024 was a crucial event where experts, researchers, and enthusiasts gather to share knowledge and skills about data. This festival is important because it promotes learning, new ideas, and teamwork in using data to solve problems and make decisions. It's not just about learning new skills or showing off new technology. It's about connecting people from different fields, boosting our economy, and leading our country in using data to create new ideas and improve our lives.

At "The Data Fest-2024," we celebrated how important data is for making decisions, being creative, and planning for our future. This festival was more than just a party. It was the start of many projects to use data to make life better for everyone

About the Organizers

Pakistan Bureau of Statistics (PBS) is the prime official agency of Pakistan, responsible for collection, compilation and dissemination of reliable and timely statistical information to the policy makers, planners and researchers. It publishes a variety of reports, based on primary and secondary data, especially on economics and social aspects of the country. After independence of Pakistan, Central Statistical Office (CSO) was setup by the Government of Pakistan in 1950 as an attached department of Economic Affairs Division. Since then statistical system was reviewed from time to time by

both local and foreign consultants. In 1972, on the recommendation of IBRD Mission, Central Statistical Office (CSO) was upgraded to a full-fledged Statistics Division. The Division was re-organized in 1981 and its technical wing (the then CSO) was converted into Federal Bureau of Statistics (FBS) as one of its attached departments. As a step forward Government of Pakistan has established Pakistan Bureau of Statistics, by merging Federal Bureau of Statistics, the Population Census Organization, The Agriculture Census Organization, and the Technical wing of Statistics Division.

Pakistan Bureau of Statistics (PBS), the nation's primary official statistical body, is entrusted with the responsibility of collecting, compiling, and disseminating reliable and timely statistical data. This information is essential for policymakers, planners, and researchers. PBS regularly publishes various reports derived from both primary and secondary data, with a particular focus on the economic and social dimensions of Pakistan.

Following the successful completion of the Digital Census, the pivotal role of PBS in shaping national policy has been further emphasized. Knowing this significance minister for Planning, Development and Special Initiatives, Ahsan Iqbal officially announced the launch of a Data Festival on March 15, 2024. This event is designed to bring together data professionals and policymakers, with the objective of fostering collaboration, innovation, and advancement within the field of data and statistics.

The successful execution of DataFest 2024 stands as a testament to the dedication and hard work of the Pakistan Bureau of Statistics (PBS) and its partners. Organizing such a large-scale event required months of meticulous planning, coordination, and collaboration across multiple sectors. The PBS, in collaboration with key stakeholders from the government, academia, international organizations, and the private sector, overcame various logistical and operational challenges to ensure the event's success. From securing partnerships to curating relevant content, the team worked tirelessly to create a platform that would not only highlight the importance of data but also inspire future action in data-driven governance and development.

DataFest 2024, organized by the Pakistan Bureau of Statistics (PBS), successfully brought together key stakeholders from various sectors, including government, academia, international organizations, and the private sector. Held on October 21st and 22nd at the Pak-China Centre, the event served as a vibrant platform for promoting data-driven decision-making, policy making, innovation in data visualization, fostering collaboration, enhancing data literacy and overcoming challenges in data ecosystems. It underscored the critical role of data in shaping future policies and driving socio-economic development in Pakistan.

The event featured a diverse array of activities, including keynote speeches, panel discussions, workshops, technical sessions, and stall exhibitions. Over 5,000 attendees participated in the two-day event, with more than 2,000 visitors exploring 48 exhibition stalls showcasing innovative data tools and solutions. The workshops, attended by over 1000 participants, provided hands-on training in areas such as data literacy, data science tools, machine learning, and policy analysis. Moreover, six keynote speeches and multiple panel discussions addressed critical topics such as data governance, artificial intelligence, sustainable development, and their intersection with Pakistan's socio-economic priorities.

DataFest, the first-of-its-kind festival in Pakistan aimed to promote statistical literacy and raise awareness about data's crucial role, demystify data science and demonstrated its practical applications in sustainable development. The event aimed to harness the transformative power of data to drive innovation, inform policy-making and overcome technological challenges. Here are the primary objectives of the event:

1. **Promote Data-Driven Decision Making**: Encourage the use of data in policymaking, business strategies, and public services to enhance efficiency and effectiveness.
2. **Directly Engage Data Producers with Data Users:** Facilitate interactions to bridge the gap between data creators and users. Bring together experts, researchers, practitioners, and policymakers from various sectors to share knowledge, ideas, and best practices in data science and its applications.
3. **Showcase benefits of Data Integration and Sharing:** Highlight how data amalgamation can generate holistic insights for informed decision-making. The event provided a platform for showcasing the latest advancements in data analytics, artificial intelligence, machine learning, and other data-driven technologies.
4. **Foster Data Literacy and Visualization Skills:** Provide training on data analysis and visualization to empower participants understanding and skills enabling them to leverage data more effectively in their respective fields.
5. **Create a Marketplace for Data Exchange:** Facilitate networking opportunities for participants to connect with peers, mentors, and potential collaborators, fostering a community of data enthusiasts and professionals where data can be traded, accessed, and utilized effectively.
6. **Encourage Research and Development**: Stimulate interest in data-related research and development, encouraging academic and practical innovations that address real-world challenges.
7. **Highlight Success Stories**: Share case studies and success stories of leading organization from various sectors i.e. government, semi government, academia and private, demonstrating the impactful use of data and innovation, inspiring others to adopt data-driven approaches.
8. **Drive Sustainable Development**: Support the achievement of sustainable development goals by promoting data initiatives that address social, economic, and environmental issues.
9. **Policy Advocacy**: Advocate for policies that support data accessibility, privacy, and ethical use, ensuring data is used responsibly and for the greater good.
10. **Capacity Building**: Provide training and workshops to build the capacity of individuals and organizations in data management, analysis, and application.
11. **Foster International Collaboration and Involvement:** Encouraged international organizations and global partnerships to share experiences, knowledge, resources, and best practices in data science that have proven successful in their respective countries. Engage with international organizations and experts to enhance the global impact of data-driven initiatives and ensure that Pakistan benefits from the latest global advancements in data technology.

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Event Location Highlights

The Data Festival took place at **Pak China Friendship Centre, Garden Avenue, Shakarparian Road,** Islamabad.
The PBS hosted a two day Data Fest on 21st to 22nd October 2024.

Message from Ahsan Iqbal

Dear Participants and Guests,

I'm delighted to extend my heartfelt appreciation to the organizers and management team of DataFest 2024 for their exceptional efforts in bringing this groundbreaking event to life. For the first time in the history of the Pakistan Bureau of Statistics (PBS), this pioneering initiative showcased the transformative power of data in shaping Pakistan's future.

DataFest 2024 was a shining example of PBS's commitment to fostering a data-driven culture across all sectors. By convening experts from government, private sector, academia, and international community, the event created a dynamic platform for knowledge-sharing, collaboration, and innovation.

The event highlighted the importance of embracing modern data analytics and digital tools to address national challenges and drive meaningful change. It served as a wake-up call for policymakers, researchers, and practitioners to prioritize evidence-based decision-making and invest in strengthening Pakistan's data infrastructure.

I commend the entire PBS team and event organizers for their meticulous planning and flawless execution. Their dedication and hard work set a new benchmark for excellence, proving Pakistan's capability to host events of international standards.

As we move forward, I urge all stakeholders to carry forward the momentum created by DataFest 2024. Let's collectively harness the potential of data for informed policymaking, sustainable development, and progress of our nation. By fostering collaboration and innovation, we'll unlock accurate and efficient data-driven strategies for Pakistan's prosperity.

Let us continue this journey of harnessing data to make decisions that build a better, brighter future for Pakistan. The data revolution is here—let us embrace it with optimism and determination!

Warm regards,
Professor Dr. Ahsan Iqbal,
Ministry of Planning Development E Special Initiatives, Islamabad

DataFest 2024, held on **October 21st & 22nd** at the **Pak-China Centre**, marked a significant milestone in the **Pakistan Bureau of** decision-making. Spearheaded under the guidance of **Prof. Ahsan Iqbal** (Minister of Planning, Development & Special Initiatives), the event exemplified the Bureau's dedication to leveraging data as a catalyst for Pakistan's progress.

The festival brought together a diverse range of participants, including representatives from International organizations, Government and Semi-government sectors, Private sectors, Academia and research institutions, NGOs & civil societies, and Information Technology and Telecommunications sectors. **DataFest 2024** served as a dynamic platform for data scientists, statisticians, policymakers, and development experts to discuss and explore how data-driven solutions can improve social and economic planning across Pakistan.

The event underscored the importance of a robust and reliable data system to guide evidence-based policymaking. Panel discussions emphasized innovative approaches to utilizing data for solving real-world challenges and promoting sustainable development.

This event reinforced PBS's commitment to fostering a culture of data-driven decision-making. **DataFest 2024** not only showcased PBS's efforts in advancing data systems but also inspired collaboration across sectors, reaffirming the role of data as a cornerstone for a brighter and more sustainable future for Pakistan.

In the end, I extend my gratitude to **Mr. Muhammad Sarwar Gondal** (Member, Support Services and Resource Management) for his exemplary leadership and guidance in making this event a success. I also wish to extend my sincere appreciation to the **DataFest Secretariat**, under the supervision of **Ms. Rabia Awan** DDG (DataFest/CPMU/PSLM), which played a pivotal role in the seamless execution of the event.

I hope together we will able to achieve more and more event a regualr future event "**Unleashing the Power of Data for Development**".

Dr. Naeem-uz-Zafar (ستاره امتیاز)
Chief Statistician
Pakistan Bureau of Statistics
Islamabad

Acknowledgment

On behalf of the **Pakistan Bureau of Statistics (PBS)**, I would like to express my profound gratitude to everyone who contributed to the success of **DataFest 2024**, held on **October 21st & 22nd** at the **Pak-China Centre**. This landmark event was made possible through the collective efforts of a dedicated team, supportive partners, and enthusiastic participants.

First and foremost, I extend my heartfelt thanks to **Dr. Naeem-uz-Zafar**, (**Chief Statistician)**, for his visionary guidance and unwavering support, which inspired us to deliver an impactful and meaningful festival. His emphasis on fostering a culture of evidence-based decision-making was the driving force behind this initiative. Under his leadership, the event showcased creative applications of data in addressing national challenges while aligning with global development objectives.

I am deeply appreciative of the invaluable contributions from our organizing team, whose tireless efforts ensured the seamless execution of this event. A special acknowledgment goes to **Ms. Rabia Awan**, **DDG (DataFest/CP&C/PSLM)**, for her exceptional coordination, creativity, and dedication throughout the planning and execution process. My special gratitude for the **DataFest Secretariat Team**; which worked tirelessly for making this event a success.

I am thankful to all Government representatives, International organizations, Private sectors, Academia & Researchers, and IT and Telecommunications professionals for their expertise, active participation, and insightful discussions. Their contributions turned DataFest 2024 into a dynamic center of collaboration and innovation.

Finally, I am deeply grateful to our esteemed partners and sponsors **UNFPA, UNICEF, The World Bank, FAO, UNHCR, ADB, and ILO** whose unwavering support was instrumental in bringing this vision to life. Their contributions underscore a shared commitment to leveraging data for Pakistan's sustainable development. As we reflect on the success of **DataFest 2024**, let us carry forward the momentum and continue exploring innovative ways to "**Harness the Power of Data**" for a brighter, more inclusive future.

Muhammad Sarwar Gondal (ستاره امتیاز)
Member (SS/RM)
Pakistan Bureau of Statistics
Islamabad

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Government Sector:
Federal Government
Agencies
Provincial Government
Departments
Local Government Bodies
Regulatory Authorities
Public Sector Enterprises

Private Sector:
Large Corporations
Small and Medium
Enterprises
Financial Institutions
Private Healthcare
Providers
Education Providers

NGOs and Civil Society:
Human Rights
Organizations
Community-Based
Organizations
Development NGOs
Environmental NGOs

Academia and Research Institutions:
Universities and Higher
Education Institutions
Research and
Development
Organizations
Think Tanks and Policy

Stakeholders for Coordination and Engagement

International Organizations:
United Nations Agencies
International
Development Agencies
International
Non-Governmental
Organizations

Semi-Government Organizations:
Public-Private Partnerships
Industry Associations
Development Authorities
Potential IT and Data Organizations
Tech Companies
Data Analytics Firms
Startups and Innovators

Private Associations and Unions:
Pakistan Software Houses
Association (PSHA)
All Pakistan Trade Union
Federation (APTUF)
Pakistan Pharmaceutical
Manufacturers'
Association (PPMA)

All Pakistan Textile Mills
Association(APTMA)
Federation of Pakistan
Chambers of Commerce &
Industry (FPCCI)
Pakistan Medical
Association (PMA)
Pakistan Bar Council (PBC)

Data Festival Key Features

Over three days, 300 people from different groups like businesses, universities, governments, and organizations that work on research and development come across. They include data experts and offices that collect statistics. Together, they discussed about the utilization of data. This event fetched together people who need, collect, and analyze data. They worked together to come up with new ideas and planned to make sure data helps make our world better.

Themes

Data for Life and Equity

Data for Governance and Growth

Harnessing Data for Fiscal Resilience

Climate Change, Adaptation, and Disaster Risk Management

Data Integration and Visualization for Development

Formats

- Keynote Presentations
- Panel Discussions
- Workshops
- Exhibition/Stall
- Networking
- Data Product Demonstration

DataFest-2024

STRATEGIC PLANNING

Muhammad Sarwar Gondal (ستاره امتیاز)
Member (SS/RM), Spokes Person
Pakistan Bureau of Statistics

Ms. Rabia Awan
Deputy Director General
Pakistan Bureau of Statistics

Contributors to Report	
Ms. Hina Kanwal	Statistical Officer
Ms. Shaista Zahir	Statistical Assistant
Ms. Hina Javed	Statistical Assistant

Program

1. Data for Life and Equity
2. Data for Governance and Growth
3. Harnessing Data for Fiscal Resilience
4. Climate Change, Adaptation, and Disaster
5. Data Integration and Visualization for Development

Day-1: 21st October 2024

Activities / Tasks	Time	Activities / Task	Time
Registration & Welcome	09:00 AM		
▪ Inauguration by Honorable Prime Minister / Minister for PD&SI	09:30 AM		
▪ MoU Singing Ceremony	10.30 AM		
Workshops ▪ Exhibition / Stalls ▪ Networking events ▪ Data Product Demonstration ▪ Data Visualization Competition	11:00 AM	6 x Workshops	12:00 PM To 01:00 PM
A special session with the **International NSOs and Experts** for sharing their experiences for innovative data visualization for effective utilization of data for decision making.	12:00 PM To 01:00 PM		
01:00 PM Lunch Break			
Hall-1: Panel Discussion- 1. **Data for life & Equity:** Harnessing Demographic Data for Policy and Legislation to addressing Pakistan's high population Growth rate	02:00 PM To 04:00 PM	6x Workshops	02:00 PM To 3.00 PM
Hall-2: 2. **Data for Life & Equity**: Closing Education Gaps on Access and Learning	02:00 PM To 04:00 PM	6x Workshops	3:15 PM To 4.15 PM
Informal meet and greet Opportunity to interact with experts and each other	04:00 PM		

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DataFest-2024

Activities / Tasks	Time	Activities / Task	Time
Registration	09:00 AM		
Exhibition / Stalls Networking Data Product Demonstration Data vise Competition	09:30 AM	**6 x Workshops**	**10:00 AM to 11:00 AM**
Hall-1: 1. **Data for Life & Equity:** Welfare Monitoring for Better Policy Decision-making **Hall-2:** **Panel Discussion /** Keynote Presentations 2. **Climate Change, Adaptation, and Disaster Risk Management:** Key indicators for Asia and the Pacific-2024: data for climate action **by ADB Representative**	**11:00 AM to 01:00 PM**	**6 x Workshops**	**11:30 AM To 12:30 PM**
01:00 PM Lunch Break			
Hall-1: **Panel Discussion /** Keynote Presentations- 1. **Data Integration & Visualization for Development**: Bridging Data Gaps: Inclusive Data Systems for effective policy making. **Hall-2:** 2. **Data for life & Equity& Growth:** Data Integration for Growth & development	**02:00 PM To 04:00 PM**	**6 x Workshops**	**02:00 PM To 03:00 PM**
Closing of Data Fest by Minister for PD&SI	04:00 PM	**6 x Workshops**	**03:30 PM To 04:30 PM**
Family Fun Day Live Performance Food and Beverages	06:00 PM		
Networking Dinner at President House / Prime Minister by Minster PD&SI	08:00 PM		

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The First-Ever Pioneering event DataFest 2024 powered by Pakistan Bureau of Statistics started at 21st October 2024 with the transformative power of data, bringing together visionaries, innovators, and leaders from around the world to explore data-driven solutions. The event brought together diverse activities and engagements spread over two eventful days, each carefully curated to foster collaboration, innovation, and knowledge sharing. The event was inaugurated by Minister for Planning, Development, and Special Initiatives, Prof. Ahsan Iqbal, who emphasized the critical role of data in driving informed decision-making and sustainable development. In his address, the minister highlighted the importance of collaborative efforts between government sector, private sector and academia in leveraging data for national progress.

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During the visit to DataFest 2024, the Federal Minister for Planning, Development, and Special Initiatives, Ahsan Iqbal and secretary Planning, Development, and Special Initiatives, Mr. Awais Manzur Sumra toured various stalls and workshops, showcasing the latest advancements in data science and technology. They engaged with exhibitors, learning about innovative data tools and solutions designed to tackle key challenges in governance, healthcare, and education.

In the workshops, Ahsan Iqbal observed hands-on sessions where participants were actively involved in data integration techniques and data visualization practices. He interacted with attendees and instructors, appreciating their efforts and the collaborative environment fostered by the event. The Minister's presence not only highlighted the importance of data-driven innovation but also encouraged participants by acknowledging their contributions to Pakistan's data landscape. His visit underscored the government's commitment to supporting and advancing the field of data science in the country.

At each stall, the Minister took the time to discuss the potential impact of these technologies with representatives, demonstrating keen interest in their applications and development. Throughout his visit, Ahsan Iqbal commended the exhibitors for their innovative work and encouraged them to continue developing data solutions that can address Pakistan's key challenges. His tour underscored the government's commitment to embracing technology and data-driven decision-making as vital components of the country's future development strategy.

The MOU signing Ceremony was a significant highlight of the first day of DataFest 2024. Pakistan Bureau of Statistics (PBS) formalized partnerships with the following organizations and institutions to enhance collaboration and promote data-driven initiatives:

1. Competition Commission of Pakistan (CCP)
2. National Database and Registration Authority (NADRA)
3. Controller General of Accounts (CGA)
4. House Building Finance Corporation (HBFC)
5. University of Management & Technology, Lahore (UMT)
6. FAST National University of Computer and Emerging Sciences (FAST)
7. Rawalpindi Women University (RWU)
8. Pakistan Institute of Education (PIE)
9. University of Sargodha (UOS)
10. Forman Christian College (FCC)
11. Pakistan Telecommunication Authority (PTA)
12. Faisalabad Business School (FBS_NTU)
13. Lahore University of Modern Sciences (LUMS)

These MOUs symbolize a commitment to fostering a collaborative environment that leverages data for the benefit of various sectors. By partnering with these esteemed organizations, PBS aims to enhance data sharing, improve data quality, and drive innovation across multiple domains. This collaboration will facilitate more comprehensive and accurate data collection, analysis, and dissemination, ultimately contributing to better-informed decision-making and policy development. The ceremony featured representatives from each organization who expressed their enthusiasm for the collaboration and their commitment to contributing to Pakistan's data ecosystem. This initiative underscores the importance of partnerships in achieving sustainable development goals and highlights the role of data in driving progress and innovate

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International organizations played a vital role in Data Fest, contributing meaningfully through physical presence and virtual participation. Experts from international organizations attended as keynote speakers/panelists, sharing insights on data-driven solutions for global challenges.
A virtual networking space was established for international organizations, allowing participants to engage with global experts.
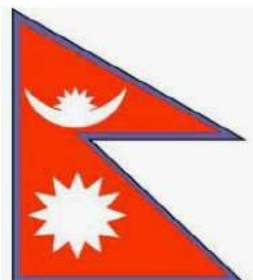
Oman

Thailand

Azerbaijan

Australia

Iran

Nepal

Uzbekistan

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Name & Designation	Designation	Country Name
Mr.Maddhu Sudan Burlakoti	Chief Statistician, NSO Nepal	Nepal
Dr.Hem Raj Regmi	Deputy Chief Statistician , NSO Nepal	Nepal
Mr.Manohar Ghimire	Director, NSO Nepal	Nepal
Mr.Bishwaroop Dahal	under Secretary, NSO Nepal	Nepal
Mr.Mukti Ram Aryal	Under Secretary, OPMCM Nepal	Nepal
Ahmed Abdullah Hilal Al Rumhi	Statistician	Sultanate Of Oman
Hilal Abdul Rahman Mohamed Al Abri	Head of Population Statistics	Sultanate of Oman
Don McNeil, MacQuarie	University Sydney Australia, Professor	Australia
Ms. Rusma Kaleng ,	Lecturer Prince Songkla University, Australia	Thailand
Dr Mayuening Eso,	Lecturer, Prince Songkla University,	Thailand
Dr. Saleha Naghmi,	Professor Kinnaird College Lahore.	Pakistan

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Dr. Saleha Naghmi, a **renowned professor from Kinnaird College Lahore**, extended a warm welcome to representatives of international organizations at Data Fest 2024 in Pakistan. She skillfully hosted a dynamic session of international discussions, fostering meaningful collaboration among global participants. The session provided a valuable platform for exchanging innovative ideas and exploring solutions to pressing global data challenges, leaving a lasting impact on all attendees.

Manohar Ghimire, **Director at the National Statistics Office (NSO) of Nepal**, attended the Data Fest 2024 in Pakistan. His presentation covered key aspects of Nepal's census and survey methodologies. Advanced data collection tools were emphasized for their role in improving accuracy. Participants appreciated the focus on technology's role in enhancing statistical operations. The presentation fostered dialogue on adopting best practices across South Asia.

Ahmed Abdullah Hilal Sulaiman, representing **Oman's Bureau of Statistics**, visited Pakistan to participate in **Data Fest 2024.** During the event, he gave a **country presentation**, showcasing the **methodologies and techniques** employed in Oman's **census operations**. His presentation emphasized the **innovative strategies** and **advanced technologies** used to **enhance the accuracy**, **efficiency**, and **reliability** of data **collection and analysis**. The session served as a platform for **sharing knowledge** and **best practices**, **fostering collaboration** between Oman and Pakistan in the field of statistical research and data management.

Don McNeil, a professor at Macquarie University in Sydney, Australia, participated in the Data Fest 2024 in Pakistan. The focus was on leveraging statistical models for effective decision-making in public policy. His insights highlighted the importance of data-driven approaches in addressing global challenges. Participants valued the practical examples he provided from his work in Australia and other regions.

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PBS set up a **Stall Management Committee** responsible for overseeing the stall arrangements from the initial planning stages through to the event's conclusion. The stalls were categorized as follows:

1. **Premium Stalls** (20x10 ft) - High-visibility spaces for maximum exposure.
2. **Essential Stalls** (18x9 ft) - Mid-range with moderate visibility.
3. **Standard Stalls** (18x9 ft) - Basic options with reasonable presence.
4. **Basic Stalls** (9x9 ft) - Affordable, compact stalls ideal for smaller organizations.

Each stall type was offered at a specific price point, with precise measurements to ensure organizations could choose the setup best suited to their requirements. Detail of exhibition stalls by type is given below.

Table 1: - Detail of Exhibition Stalls by Type in Datafest-2024

Sr. No.	Type	Total	PBS Sponsored	Self-Sponsored
1	Premium	5	2	3
2	Essential	10	7	4
3	Medium	13	10	3
4	Basic	20	16	4
Total		**48**	**35**	**14**

Pakistan Bureau of Statistics played a vital role as the primary organizer, with six premium stalls presenting real-time data from key sectors, including the 2023 Population and Housing Census, Agriculture Census, National Accounts, GIS, Price Statistics, and interactive dashboards from the Data Processing Center. Additionally, three essential stalls highlighted critical data from national surveys such as the Pakistan Social and Living Standards Measurement (PSLM), Social Statistics (SS), Trade & Industry Statistics, and the Labour Force Survey (LFS), offering insights into socio-economic indicators.

UNICEF briefed attendees at DataFest 2024 on their efforts to protect children's rights and address food insecurity. They highlighted their contributions to food systems reform aimed at preventing child food poverty, showcasing various projects focused on improving children's nutritional health. At their stall, UNICEF presented key publications and demonstrated their work in advocating for children's rights and promoting healthier, more sustainable food systems to support the well-being of children globally.

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The World Bank participated in DataFest 2024, sharing its impactful contributions towards reducing poverty and hunger, fostering sustainable growth, and driving job creation. They highlighted their efforts in promoting human development, fiscal and debt management, food security, and ensuring access to clean air, water, and affordable energy. At their stall, the World Bank showcased key publications and demonstrated their ongoing work in these critical areas, emphasizing their role in advancing development through data-driven solutions and policy interventions.

United Nations Population Fund (UNFPA) presented their different publications on stall briefing the visitors about their contribution for population welfare with the collaboration of different governments in the world at country and regional level. They highlighted the areas which include logistic management information system in health structures, national strategy for accelerating the reduction of maternal and neonatal mortality, national behavior change communication strategy and action plan, their support for integrating cash assistance into gender-based violence case management etc.

NADRA Showcased Local Biometric Technology at locally assembled biometric devices. The exhibition featured a range of innovative products including self-service kiosks for public use, integrated biometric devices for efficient data collection, secure identity verification devices and streamlined registration kits. The event demonstrated NADRA's innovative contributions to enhancing service delivery and identity security, setting new standards for digital technology adoption in Pakistan and advancing the vision of a digitally empowered society.

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Pakistan Software Export Board stall highlighted a range of initiatives aimed at promoting the software export industry in Pakistan. Participants explored programs such as E-rozgar, Data Nodes, and various training and internship opportunities. The engaging presentations illustrated PSEB's dedication to nurturing talent and fostering growth within the software export sector.

National University of science and Technology featured a diverse array of data projects, highlighting their real-world applications and to explore innovative solutions. Workshops provided hands-on sessions on integrated approaches to data analysis and visualization, and cutting-edge skills to address critical socio-economic challenges effectively. A session on data visualization with R guided participants in using R programming to create clear, impactful visualizations, making complex data more accessible and actionable. Lastly, digital governance methods for NGOs/INGOs introduced tools and techniques for using data to improve transparency, accountability, and operational efficiency within non-governmental organizations.

Lahore University of Management Sciences showcased LUMS' cutting-edge data initiatives Digital Twin for Data Centers, National Open Data Portal, Digital Pakistan initiatives and more comprehensive series of projects focused on building robust digital infrastructure and promoting digital literacy nationwide. These initiatives sought to bridge the digital divide, foster e-governance, and support the growth of Pakistan's digital economy. The stall provided an engaging space where attendees could interact with these innovative data solutions, explore potential collaborations, and understand the impact.

KP IT Board envisaged the innovative solutions in data presentation and visualization. Attendees engaged with interactive materials that demonstrated how the KP IT Board is leveraging technology to improve governance and service delivery. The stall effectively communicated the Board's commitment to driving digital transformation in Khyber Pakhtunkhwa. They commented that Excellent networking sessions allowed attendees to connect with industry professionals and share ideas effectively.

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Food and Agriculture Organization (FAO) is a specialized agency of the United Nations participated in data fest 2024. They briefed the attendees about their efforts to defeat hunger. They presented their publications about their achievements which includes food security and regular access to enough high-quality food to lead active and healthy life. Their work focuses on improving agricultural productivity, enhancing nutrition, and promoting sustainable farming practices to ensure that people, especially in vulnerable communities, can access sufficient and nutritious food. Through their initiatives, the FAO aims to address the root causes of hunger and malnutrition, contributing to the achievement of the United Nations' Sustainable Development Goal of Zero Hunger

Punjab Information Technology Board (PITB) participated in Data Fest 2024, showcasing its role in providing technical support and coordination for Punjab government's development projects. The stall highlighted innovative e-learning solutions and the "Maryam ki Dastak" initiative. Presentations demonstrated PITB's commitment to improving educational access and quality through technology, with interactive materials illustrating the transformative impact of digital education on communities.

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AJ&K IT Board presented a range of applications focused on data presentation and visualization. Participants were introduced to innovative solutions aimed at enhancing data accessibility and usability in Azad Jammu and Kashmir. The stall highlighted the AJK IT Board's efforts to empower local stakeholders through effective data management strategies.

SUPARCO presented a range of innovative technologies and initiatives under the theme "Space on Aid." Highlights included demonstrations of GNSS (Global Navigation Satellite System) Receivers, Pak-SBAS (Pakistan Satellite-Based Augmentation System), and Pak-GBAS (Ground-Based Augmentation System), GreS (Geospatial Research Services) products, HTS (High Throughput Satellite) Terminal technology and digital content from the SAR (Synthetic Aperture Radar) Wing. A large-scale map of Pakistan, measuring 5 feet by 6 feet, visually illustrated the impact of space technology on national development and humanitarian efforts.

National Radio & Telecommunication Corporation demonstrated their commercial level telecommunication equipment, electronic systems and IT based Solutions. In their stall NRTC displayed & briefed following products to the audience.
•NRTC Edge Laptop & Desktop
•Rugged Tablets & Laptops
•PCoIP (Zero Client Laptop & Desktop)
•Thin Client Desktop and School Management System
•HRM Software & Inventory Management System
Election Monitoring Application

Ministry of Planning and Development & Special Initiatives highlighted the iPAS (Intelligent Project Automation System). Key points likely included:
-Automation and Tracking
-Data-Driven Decision Making:
-Transparency and Accountability:
-Collaboration Across Departments:
-Future Improvements and AI/ML Integration

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Pakistan Institute of Education (PIE) showcased its reports and publications including Highlights of School Education Statistics 2021-22 and comprehensive School Education Statistics Reports 2016-17 to 2021-22, Non-formal Education Statistics 2021, Girls Education in Pakistan Statistics & Trends for 2022-23 and National Achievements Test Report 2023 and its detailed findings for all provinces in the NAT-2023. International comparative data is captured in the Trends in International Mathematics and Science Study (TIMSS) 2019. The financial dimensions of education are explored in the Public Financing in Education Sector FY 2022-23, Policy Note on Education Finance and PIE Newsletter (April-June 2024).

National Disaster Management Authority has a vital role regarding display of new techniques in term of predicting and protection against disaster. Their stall demonstrated Sentinel-1, a European Space Agency (ESA) Earth observation satellite constellation that provides synthetic aperture radar (SAR) imagery for detecting oil spills, especially in challenging conditions such as darkness, fog, and cloud cover. Its all-weather capability, ability to penetrate clouds, and unique signatures of oil spills make it an indispensable asset for coastal management and pollution control.

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KP Bureau of Statistics presented their statistical compilations procedure. They briefed the attendees how electronically and digitally they collect data. GDP estimates provided a detailed analysis of the province's economic growth, along with an economic review and a comprehensive analysis of the province's economic performance. Trend channeling revealed various trends and opportunities. Socioeconomic indicators, including education, health, poverty, and inequality, were assessed. Development statistics displayed data on key development sectors such as agriculture, industry, infrastructure, and human development.

Land Management Information System stalls focused on the critical area of agricultural data management. The presentation emphasized the significance of accurate and timely data in agriculture, showcasing how LIMS leverages technology to support decision-making and improve agricultural productivity. The informative display captivated participants, demonstrating LIMS's role in driving agricultural advancements in Pakistan.

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Punjab Bureau of Statistics presented eleven publication reports, Data presentation tools for quick data review, videos of different survey journeys on their stall. They presented the statistics of Punjab provinces for development and growth. Punjab Bureau also briefed the attendees how electronically they collect data on socio economic indicators like health, education, agricultural, industry etc. and disseminate for future development planning of the province.

Finance Division presented a series of interactive dashboards and informative videos that demonstrated the Finance Division's initiatives in data-driven financial management. The visual displays provided attendees with a clear understanding of how financial data can be effectively utilized for improved governance and accountability. Finance division presented their publications, research papers and economic survey series to attendees.

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Pakistan Meteorological Department (PMD) is a scientific and a service department functional under the Ministry of Aviation. The major achievements of the Department are briefed to the attendees which includes the use of modern flood prediction system, computerized weather forecasting system, earthquake and nuclear explosion detection system, incorporating radar, satellite, information technology, flight safety, consultancy services in seismic design of dams, building and other development and disaster relief schemes. They also explained the Weather observation equipment's, live earth quick monitoring display, River flood situation maps in Pakistan, details of observed data.

Bureau of Statistics Sindh showcased its latest reports, publications, and statistical bulletins, along with a digital library or online portal where these resources could be accessed, enabling visitors to explore and retrieve official statistics for Sindh. Additionally, the SBoS team conducted demonstrations on data collection methods used across Sindh, including surveys, censuses, and administrative data, the methodology and technology, such as Performa, tablets, and mobile devices, highlighting the tools and processes for data visualizations, such as charts, graphs, and maps. They also demonstrated real-time data visualization tools to show how data could be used to monitor trends and make informed decisions.

C-digital, stall showcased a comprehensive overview of their offerings. Attendees were introduced to an array of presentations detailing equipment specifications, company profiles, and advanced software applications. The engaging setup highlighted C-digital's commitment to innovation and provided valuable insights into how their solutions enhance data utilization across various sectors.

Bureau of Statistics P&D Department AJ&K showcased key publications included the Statistical Year Book, the long-standing brochure "AJ&K at A Glance,"; Multiple Indicator Cluster Survey (MICS) and various MICS publications presenting data trends in an accessible format. By presenting such a rich array of statistical products, the AJ&K BoS reinforced its role as a cornerstone of data-driven governance in the region, promoting informed decision-making at all levels.

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Aga Khan Foundation for Habitat Pakistan represented the AKDN engaged researchers, data experts, students, and policymakers by sharing information about the work each agency is doing to improve quality of life (QoL). The Aga Khan Agency for Habitat Pakistan showcased its data on disaster preparedness and climate change adaptation.

State Bank of Pakistan's stall presented an Easy Data platform, highlighting commitment to providing accessible and comprehensive data resources that cover various economic indicators and financial metrics. In-house developed dashboards were showcased powered by Business Intelligence (BI) technology, allowing users to visualize and analyze complex datasets interactively.

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Bureau of Statistics, P&D Baluchistan participated in datafest 2024 at Islamabad. They presented compilation procedure accurate statistic for displayed many statistical publications of different surveys and reports which includes Development Statistics 2023, BCSR 202 Socioeconomic Indicators 2022 and the Baluchistan Glance Report.

Idara-e-Taleem-o-Aagahi (ITA), has been at the forefront of conducting Citizen-led Assessments (CLAs). ITA, Annual Status of Education Report (ASER) and Economic Survey of Pakistan for Planning Commission's development of a District Education Performance Index (DEPIx). ITA also showcased its ASER findings and digital assessment tools, including the ASER Survey App and the upcoming FLN (Foundational Literacy and Numeracy) app. The FLN app, gamified to make assessments engaging, is based on ICAN and ICARe frameworks.

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Karandaaz Pakistan is a not-for-profit public company limited by guarantee set up under Section 42 of the Companies Act, 2017. Karandaaz was established in 2014 with seed grant funding from UK Government's Foreign Commonwealth and Development Office. At the DataFest, KRN showcased its data portal an all-in-one hub for researchers, policy makers and data enthusiasts. The portal has 15 different categories with 550+ indicators pertaining to Pakistan's Economic, political and social outlook.

Justice Project Pakistan's exhibition stall at DataFest 2024 featured a variety of informational materials to educate visitors about their mission in human rights and justice reform. Their display included books on justice-related case studies, magazines with updates on justice and prisoner rights, and pamphlets and brochures summarizing their initiatives and engagement opportunities. A central highlight was their prisoner database project, designed to document and manage prisoner information to enhance transparency, facilitate case tracking, and advocate for prisoners' rights.

Pakistan Centre of Philanthropy's exhibition stall featured a range of resources demonstrating their dedication to supporting Sustainable Development Goals (SDGs). Among the showcased materials were books and publications, including in-depth reports, case studies, and research focused on philanthropy and sustainable development. Their emphasis on interdisciplinary data integration and visual analytics aimed to align philanthropic data and policies with critical SDGs, such as Zero Hunger, No Poverty, and Good Health and Well-being.

Research and Development Solutions presented a comprehensive display of publications, books, research findings, methodologies, and development initiatives. Brochures and standees provided visual summaries of their services and impact areas. They screened documentaries that highlighted their data analysis tools, such as heat maps and dashboards for visualizing data trends, geo-mapping infographics for spatial analysis, and the Human Development Index (HDI) calculation for Pakistan.

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National Energy and Conservation Authority (NEECA) highlighted the significance of energy efficiency and conservation. through a variety of materials, including brochures, videos, documentaries, workshops, and presentations, where a considerable number of up to 100 people participated. This platform also offered valuable information to students interested in internship opportunities with NEECA. Their collaborative effort underscores the commitment of both NEECA and PBS to advancing sustainable energy practices in Pakistan.

Pace Technologies showcased the company's advancements in AI-powered data analytics and automation. Attendees explored innovative solutions designed to enhance statistical analysis and data processing. The interactive demonstrations underscored Pace Technologies' commitment to providing cutting-edge tools that drive efficiency and informed decision-making across various sectors.

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Directorate of General Science and Technology emphasized key initiatives in science and technology through captivating visual presentations. Attendees explored various projects aimed at advancing research and innovation in Pakistan. The stall's interactive elements facilitated a deeper understanding of how the Directorate is fostering a culture of scientific inquiry and technological advancement.

Small and Medium Enterprises Development Authority (SMEDA) is an autonomous institution of the Government of Pakistan under Ministry of Industries and Production. SMEDA innovatively contributing in growth and development of the country through the growth of small and medium enterprises. SMEDA presented publications, Research Studies, and information material related to development of SMEs

Pakistan Software Export Board stall highlighted a range of initiatives aimed at promoting the software export industry in Pakistan. Participants explored programs such as E-rozgar, Data Nodes, and various training and internship opportunities. The engaging presentations illustrated PSEB's dedication to nurturing talent and fostering growth within the software export sector.

Pakistan Agricultural Research Council (PARC) envisaged the Pakistan Sub-National Food Systems Dashboard and Data Center could to facilitate data-driven insights for stakeholders at various levels, promoting informed decision-making and evidence-based policy development. The dashboard's capabilities align with PBS's mission to support national planning, enabling comprehensive views of food systems that can inform policy formulation and resource allocation. enhance data management, while engagement at the event promotes data literacy and skills development among stakeholders.

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Inbox Business Solutions' stall emphasized the company's expertise in providing robust reporting tools and customer management software. Attendees explored innovative cybersecurity solutions designed to protect sensitive data. The engaging demonstrations illustrated how Inbox Business Solutions empowers organizations to streamline their operations while ensuring data security and integrity.

Tourism Department of Gilgit-Baltistan showcased a captivating array of documentaries and short films, including Endowed with Nature, Archaeological Wonders, and Bree. Highlights also featured Gilgit-Baltistan: Jewel of Pakistan, the thrilling Cycling Tour De Khunjerab, The Broad Way Melody, the action-packed Sarfaranga Desert Car Rally, and the breathtaking Ski Traversing over Deosai, all presented on a digital screen.

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Extra Large Binary System Solutions: This stall captivated attendees with a focus on interactive dashboards and real-time analytics. The team highlighted the role of Geographic Information Systems (GIS) in addressing challenges related to infrastructure, urban planning, and population management. Their engaging demonstrations underscored how data can be leveraged to make informed decisions for sustainable development.

AJK Tourism Department showcased the diverse tourism potential of Azad Jammu & Kashmir. The stall featured brochures, tourist maps, and other promotional materials, while documentaries on AJK's scenic attractions were screened, drawing the interest of hundreds of visitors. This exposure provided valuable guidance to attendees on AJK's renowned tourist sites, from lush valleys to historic landmarks. Data Fest proved a unique opportunity to spotlight AJK's tourism in Pakistan's capital city, highlighting PBS's commitment to fostering lasting investment in the country's digital and tourism sectors.

Securotek Finland: Stall showcased advanced data analytics solutions and enablement platforms. The team presented dashboards powered by Tableau, illustrating how organizations can derive actionable insights from complex data sets. The focus on analytics and security highlighted Securotek's commitment to providing robust solutions that empower organizations to navigate the data landscape effectively.

Air University highlighted diverse data science projects in Pakistan, covering areas such as socioeconomic trends, consumer price analysis, crime pattern investigation, stress prediction, e-commerce sentiment analysis, and renewable energy. Using tools like Power BI, machine learning, and NLP, these projects provided actionable insights for policymakers, law enforcement, businesses, and academia. Key applications included analyzing census data, forecasting student stress, comparing ride-hailing services, decoding criminal records, and optimizing electricity billing predictions. Each project leveraged data visualization and predictive analytics to address real-world issues, aiming to enhance decision-making, public safety, sustainable energy growth, and consumer experiences

Save the Children set up an exhibition stall focused on networking and collaboration opportunities. Their display featured a range of materials, including survey and reports about Child Protection, Child Labor, Child Abuse and out of School Children. They shared their various projects regarding the data handling, digital presentation provided an engaging overview of their projects, goals, and achievements, while books and brochures offered in-depth information on case studies, impact stories, and research, emphasizing areas for potential partnerships.

The Academia & Research sector, represented by three stalls, served as a vital platform for educational institutions to showcase their research and advancements in data management and analysis. These stalls highlighted innovative projects, academic studies, and collaborative initiatives aimed at addressing real-world challenges through data-driven approaches. By fostering intellectual discourse, the sector emphasized the critical role of academia in shaping future data technologies and nurturing the next generation of data experts.

Academia & Research Participated in DataFest-2024

S.No	Department / Agency / Organization	Stall Type
1	National University Of Sciences And Technology	Essential
2	LUMS/ National Center in Big data and Cloud computing (NCBC)	Essential
3	Air University Islamabad	Basic

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Three universities NUST, LUMS (NCBC) and Air University, Islamabad displayed their projects / Web Portals etc. on stalls. Further an incubation Centre was established where different universities were allocated terminals where students displayed their products / Projects. The students who participated were from Quaid-e-Azam University, Islamabad, Rawalpindi Women University, Arid Agriculture university, Air University, Kamra, Kinnaird College Lahore and Comsats, Lahore.

71 students from above mentioned universities presented 27 projects in groups. The projects were divided into three categories I.e., Category 1-PHD/ MS level Research Project, Category 2-BS level Research, Category 3-Basic Projects. At last Online Quiz Competition on the themes of Data Visualization were carried out. Students showed keen interest in the activity. The winners were awarded with different merchandize i.e. USBs, Shirts, bottles and Mugs.

S.no.	University Name	Project	Student Name
1	Comsats Lahore	Unintentional injuries and fire safety analysis in SAARC nation.	Fiza Saleem,Tehmina Lateef
2		Morality Rate due to Air Pollution in South Asian Countries	Tehmina Lateef and Fiza Saleem
3		Positive and Negative impacts of Social Media	Aliza Zulfiqar Comsats Lahore
4		Smoking and its effects on Health	Deen.M
5		Statistical Analysis of Mortality Rate by Road Accidents	M.Shayan
6		Health Outcomes of Eating Disorder in South East Asia	Zainab Sajjad
7		Mental Health is a Universal Human Right	Ansa Ismaeel & Sehar Shabbir
8		Effect of Water Pollution on Death Rate	M.Shehroz
9	Quaid e Azam University Islamabad	Health Students Attitude	Shagufta Fatima,Maryam,Anood Afaq

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S.no.	University Name	Project	Student Name
10	Quaid e Azam University Islamabad	Analyzing and Understanding Questionnaire Data	Shagufta Fatima
11	Rawalpindi Women University	Stat forge-Experts Statistical Solutions	Ramsha Basharat
12	PMAS AAUR-Green AI	Soil Health Monitoring System	Engr.M.Suleet Mr.Asim Mehmood
		Weed Detection Application	Mr.Hamza Mehmood Mr.Hassan Nawaz
13	Air University, islamabad	Mepco Defaulter Analysis: Integrated climate resilience: urban heat mitigation, flood risk management and agriculture adaptation	Muhammad Rafay Suhaib Farooq Zammad Ahmed Zubair Tahir Anas Ishaq
14		Accelerating Pakistan's Clean Energy Transformation	Ayema Amir Sami Ullah Abbasi Talha Bin Omar
15	Air University, Islamabad	CPI Dynamics in Pakistan: A city level analysis of seasonal price trends	Syed Wajdan zeerak Syeda Zainish Fatima Raja Abdul Rafay Hamza Nawab Ayesha Saleh Meesam Abbas Tanveer Taimoor
16		Sindh Crime Analysis	Hamza
17		Decoding the symphony of Criminal Records	Abid Hussain Umair Ali Saad Abdullah M. Sami Jahangir
18		Students Stress Prediction	Aroosh Altaf Abu Bakar Abdullah Ahsan Ijaz
19		Yango X Indrive Comparison Ride Wars a data driven cost analysis	M. Umair Sarah Sajid Khizer Nasir Khadija Sadar

www.pbs.gov.pk

S.no.	University Name	Project	Student Name
20		Sentement Analysis on Daraz Reviews	Eman Ahmed Sara Shabbir Tuba Istikhar Mehmood Iqbal
21	Kinnaird	Poster Presentation	Dua Saleem, Khazima Mushatq,kanwalShahid,Isma Aamir
22	Air University, Kamra	Generative AI driven Shoe Designer	i)Amjad Khalil ii)Mehmona Amjad iii)Riaz Gul
23		Deep Learning Based Dysgraphia Diagnosis Tool	i) Rumaisa Fatima ii)Umar Shahzad iii) Osama Mehram
24		Augmented Reality Based User Manual	Khushi Muhammad M. Faizan
25		AI Assisted First Aid Learning & emergency Support	Ashan Ali Asif M. Wasiq Zafar Syeda Sara Afzaal
26		AI based Youtube content review Analyzer	Kainat Afzal Muneeba Banaras Umar Bin Ayaz
27		Value Chain Analysis of Bykia	Hooria Noor

DataFest-2024

The Quiz Competition on October 21st marked a dynamic and highly anticipated start to DataFest 2024, captivating participants eager to showcase their expertise in data science, AI, and technology. Designed to foster engagement and friendly rivalry, the competition featured multiple rounds that tested critical thinking, teamwork, and knowledge of industry trends and innovations. The carefully curated questions challenged participants, pushing them to demonstrate both individual brilliance and collaborative problem-solving under pressure. Contestants impressed the audience with their quick thinking and in-depth understanding, reflecting the intellectual energy and enthusiasm of the DataFest community.

The prize distribution ceremony was a highlight, celebrating the winners with awards that ranged from high-tech gadgets and certificates to exclusive event-related items. This recognition not only honored their outstanding performance but also inspired a deeper passion for learning and exploration. The competition successfully set the stage for the days ahead, creating a vibrant, competitive, and collaborative atmosphere that left attendees energized and eager to explore the diverse sessions and activities planned for the rest of the event.

The Pakistan Bureau of Statistics has organized the country's first-ever Data Fest, which showcased a wide range of activities, including a major panel discussion. The panel discussion focused on several thematic areas, each addressing key topics related to data and statistics. Renowned national and international experts participated witj diverse perspectives and insights to the discussions.

Panel Discussion	Theme	Topic	Day	Time
1	**Data for Life & Equity**	Harnessing Demographic Data for Policy and Legislation to addressing Pakistan's high population Growth rate	1	**14:00 to 16:00**
2		Welfare Monitoring for Better Policy Decision-making	2	**11:00 to 13:00**
3	**Climate Change, Adaptation, and Disaster Risk Management**	Climate change issues, data gaps	2	**11:00 to 13:00**
4	**Data Integration and Visualization for Development**	Bridging Data Gaps for Inclusive Data Systems for Effective Policy Making	2	**14:00 to 16:00**
5	**Data for Life, Equity & Growth**	Data Integration for Growth and Development	2	**14:00 to 16:00**
6	**Data for Life & Equity**	Education: Quality and Access	1	**14:00 to 16:00**

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Theme: Data for life and Equity

Topic: "Harnessing Demographic Data for Policy and Legislation to Address Pakistan's High Population Growth Rate"

Focal Person: Mr Amjad Javed Sandhu

(DG Admn PBS)

Pakistan, with a population of 241.5 million (2023 Census) and a rapid annual growth rate of 2.55%, faces significant challenges in managing the socio-economic impacts of this unprecedented increase. The growing population is intensifying demands on health, education, housing, and employment, while accelerating urbanization and environmental degradation. Effective policymaking and legislation must be rooted in robust demographic data to address these challenges and capitalize on opportunities such as the youth bulge, which comprises 64% of the population under 30. However, gaps in data collection, fragmented systems, and limited capacity hinder the use of data in evidence-based decision- making.

This panel will explore how high-quality demographic data can inform targeted policies to address the implications of population growth, with a focus on maternal and child health, urban planning, and resource allocation. Panelists will highlight key barriers, such as data gaps in underserved areas, the absence of a centralized data hub, and capacity constraints in data analysis and usage. The discussion will emphasize the need for integrated systems, gender- disaggregated and age-specific data, and technological innovations to enhance data quality and accessibility.

The session aims to generate actionable recommendations for strengthening demographic data systems, fostering interagency collaboration, and integrating data-driven insights into legislative frameworks. By addressing these challenges, the panel seeks to contribute to sustainable development and improve the quality of life for Pakistan's rapidly growing population.

S.No	Name	Description	
1	Dr. Luay Shabaneh, Country Representative, UNFPA	**Keynote speaker**	
2	Dr. Faisal Abbas, Director, Center for Population and Wellbeing Studies, HoD, School of Social Sciences & Humanities (S3H), NUST	**Moderator**	
3	Mr. Petrick Gerland, Chief Population Estimates and projection section, Population Division , Department of Economic and Social Affairs, United Nations	**Panelist**	
4	Ms. Shahanza Wazir Ali, President SZABIST,Larkana Campus.	**Panelist**	
5	Dr. Zeba Sathar, Country Director of the Population Council in Islamabad, Pakistan	**Panelist**	
6	Prof. Dr. Mohammad Nizamuddin (S.I), Director of the Centre for Public Policy and Governance (CPPG), FC College	**Panelist**	

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Key Discussion Points:

- **Importance of Data in Policy-Making:** Panelists agreed that data informs and directs public policy, emphasizing the need for evidence-based decision-making rather than ideological approaches.
- **Human Development and Resource Management:** Addressing population growth is essential to improve Pakistan's rankings in health, education, and human development.
- **Data Collection and Accessibility:** The need for a centralized demographic data hub was emphasized to address fragmentation and improve data sharing for policy planning.
- **Public Data Transparency and Interagency Collaboration:** Effective population management requires collaboration across sectors, robust data sharing, and data-driven journalism to enhance public awareness.

Actionable Points:

1. **Centralized Data Hub** by PBS to streamline demographic data access and integration through interagency collaboration.
2. **Data Management Training** to strengthen institutional data capabilities.
3. **Investment in Data** by both public and government sectors to support data-driven policies.
4. **Data-Driven Journalism** using insights and AI to foster media stories that engage the public in data's role in development.
5. **Regular Surveys** like the Pakistan Demographic Survey (PDS) to maintain updated demographic data.
6. **Address Data Gaps** through comprehensive studies that can inform targeted policy interventions.

The panel concluded that demographic data is crucial for sustainable development in Pakistan and recommended a proactive, collaborative, and transparent approach to data collection, sharing, and utilization for more effective policy-making.

DataFest-2024

Theme: Data for Life & Equity

Topic: Welfare Monitoring for Better Policy Decision-making

Focal Person: Ms Rabia Awan

(DDG PSLM, PBS)

Data for Life and Equity" centers on advancing welfare monitoring to enhance policy and decision-making processes. This theme emphasizes leveraging high-frequency monitoring techniques and alternative data sources to inform public investment and development strategies. By integrating innovative methodologies such as spatial data, remote sensing, telecom data, administrative records, and high-resolution poverty mapping, it aims to bridge gaps between traditional surveys and censuses, offering actionable insights into poverty, equity, and development indicators.

The discussion will showcase frontier possibilities in welfare monitoring, highlighting the potential of satellite imagery and mobile data analytics to provide innovative solutions for equitable development. Expert presentations and panel discussions will address how diverse data sources can inform prioritization of needs by governments, donors, and development partners, ensuring targeted and impactful interventions.

Panelists, including economists, statisticians, and data scientists, will explore the transformative potential of integrating alternative data methods into policy frameworks. The session also provides a platform for interactive dialogue, promoting collaboration and knowledge exchange among key stakeholders. Closing reflections will underscore the importance of data-driven approaches in fostering equity and driving sustainable development.

The session aims to generate actionable recommendations for strengthening demographic data systems, fostering interagency collaboration, and integrating data-driven insights into legislative frameworks. By addressing these challenges, the panel seeks to contribute to sustainable development and improve the quality of life for Pakistan's rapidly growing population.

S.No	Name	Description	
1	Mr. Bilal Malaeb, World Bank	**Moderator**	
2	Prof Rashid Memon, Qatar University	**Panelist**	
3	Ms. Shabhano Hameed,Financail inclusion Expert anf former CEO of Prosper Technologies)	**Panelist**	
4	Ms. Christina Wieser Senior Economist World Bank	**Panelist**	
5	Mr. Umer Malik, Policy Analyst, Development Policy Unit	**Panelist**	
6	Mr. Veronique Lefebvre, Director of Data Analysis Flowminder	**Panelist**	
7	Dr. Naeem uz Zafar, Chief Statistician, PBS, Islamabad	**Panelist**	

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Key Discussion Points:

1. research and public engagement.

- Pilot Studies with Alternative Data: Conduct pilot projects to test alternative Dr. Bilal Malaeb emphasized that welfare economics goes beyond just poverty, it encompasses broader socio-economic indicators such as education, health, employment, and access to services.
- Dr. Christina Weiser advocated for the integration of alternative data sources, such as satellite imagery, mobile data, and administrative records, to complement traditional surveys.
- Dr. Rashid Memon demonstrated the potential of using unconventional data sources to monitor living standards in real-time.
- Dr. Naeem Uz Zafar emphasized the importance of data standardization and the role of PBS in ensuring that the data collected and used across sectors maintain consistency and privacy.
- Ms. Veronique explained how call data records (CDRs) can provide insights into economic activities, migration patterns, and even responses to disasters.

Actionable Points:

2. Data Standardization and Privacy Protocols: Develop guidelines to ensure data quality, consistency, and privacy across all sources.
3. Alternative Data Sources Integration: Use satellite imagery, mobile data, etc., to obtain real-time insights into socio-economic indicators.
4. Capacity for Real-Time Data Analysis: Enhance PBS's ability to analyze real-time data, especially during crises.
5. Public-Private Partnerships: Establish collaborations with private companies for welfare monitoring data access, with frameworks for data sharing and privacy.
6. Crisis Response and Preparedness: Build systems within PBS for rapid data analysis in emergencies to support timely decisions.
7. Regulatory Frameworks for Data Sharing: Collaborate with policymakers to create ethical data-sharing guidelines.
8. Open Data for Public Use: Make selected datasets available to encourage data sources for welfare outcomes monitoring.
9. Decision Support Tools for Policymakers: Create tools to guide resource allocation and welfare strategy development.

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Theme: **Climate Change, Adaptation and Disaster Risk Management**

Topic: Climate change issues, data gaps

Focal Person: Mr Attiq ur Rehman
(DDG National Accounts, PBS)

The 55th edition of the Asian Development Bank's (ADB) flagship statistical report, Key Indicators for Asia and the Pacific 2024: Data for Climate Action, highlights the critical data required to inform climate-related policies across the region. This report evaluates the availability and adequacy of data related to climate change drivers, impacts, vulnerabilities, and mitigation and adaptation strategies. One of its key findings underscores the urgent need for geographically granular data to guide effective climate action, particularly in vulnerable countries like Pakistan.

Asia and the Pacific are increasingly facing severe threats from climate change, including frequent record-breaking heatwaves, catastrophic floods, prolonged droughts, and extreme weather events. These challenges underscore the urgency of achieving SDG 13 (Climate Action) and addressing persistent data gaps that hinder informed policy-making. Despite progress, there remains a lack of comprehensive data to fully understand the impacts on vulnerable populations, especially in areas most affected by climate change. The report highlights the importance of localized, geographically detailed data, which is essential for identifying emission hotspots, assessing community vulnerabilities, and designing region- specific mitigation and adaptation strategies.

Strengthening statistical capacity to enhance the granularity, timeliness, and quality of climate data is vital. Collaborative efforts, capacity-building initiatives, and the development of robust data systems are key to ensuring countries can effectively combat climate change. In this context, integrating Natural Capital Accounting (NCA) into climate data systems emerges as a crucial strategy. NCA provides a structured approach to assess natural resources such as air, water, and biodiversity that underpin economic prosperity. By incorporating NCA, policymakers can evaluate the economic implications of environmental degradation, ensuring sustainable management of natural resources and alignment with Green Growth Strategies.

.No	Name	Description	
1	Ms. Yating RU, Economist Data Division of the economic Research and Development Impact Departemnt at ADB	**Keynote speaker**	
2	Dr. Aneel Salman Chair of Economic Security at the Islamabad Policy Research	**Moderator**	
3	Mr. Yusifov Yusif Deputy Chairman, The State Statistical Committee of the Republic of Azerbaijan	**Panelist**	
4	Dr. Sardar Mohazzam, Managing Director(National Energy Efficiency and Conservation Authority M/O Science & Technology	**Panelist**	
5	Ms. Durre Mehmood, Consultant (Oxford Policy Management Pakistan)	**Panelist**	
6	Mr. Shahid Zia Cheema, Chief (G&E), M/O Planning Development & Special Initiatives	**Panelist**	
7	Dr. Muhammad Farooq, Director (SUPARCO)	**Panelist**	
8	Soha Nisar Research Associate/ Writter (DAWN NEWS)	**Panelist (Online)**	

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Key Discussion Points

1. **Data Utilization and Gaps**
   Dr. Aneel Salman highlighted the need for effective data use in Pakistan's policy-making and emphasized the integration of existing research for climate action.
2. **ADB Climate Data Insights**
   Dr. Yating Ru presented findings from the (Asian Development Bank) ADB, emphasizing the role of timely, quality data and the value of NCA in sustainable development.
3. **Governance and Data Quality**
   Ms. Durre Mahmood stressed the need for a climate governance framework and a regulatory authority to standardize and improve data quality.
4. **National Climate Data Initiatives**
   Mr. Shahid Zia Cheema outlined ongoing ministry initiatives incorporating real-time climate data into national development strategies.
5. **Use of GIS and Satellite Data**
   Dr. Yusifov shared Azerbaijan's experience with GIS systems for climate data collection, while Dr. Muhammad Farooq discussed using satellite data for environmental monitoring.
6. **Big Data in Energy Efficiency**
   Dr. Sardar Mohazzam highlighted data-driven approaches for energy efficiency, such as optimizing consumption and promoting energy-efficient codes.
7. **Urban and Environmental Data Gaps**
   Ms. Soha Nisar identified limitations in data related to urban sprawl, flood patterns, and pollution, advocating for real-time satellite monitoring.

Actionable Points and Implementation Roadmap

1. Develop National Climate Data Strategy
2. Establish Climate Data Governance Committee
3. Resource Allocation for Data Collection and Analysis
4. Regular Climate Data Workshops and Training

Implementation Roadmap:

- **Short-term (6-12 months):** Establish governance framework for climate data.
- **Mid-term (1-2 years):** Enhance data sharing and inter-institutional collaboration.
- **Long-term (2-5 years):** Implement satellite-based environmental monitoring

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Theme: Data Integration and Visualization for Development

Topic: Bridging Data Gaps for Inclusive Data Systems for Effective Policy Making

Focal Person: Ms Sobia Munawar

(Director DP, PBS)

Pakistan's economic development often faces challenges due to the lack of data-driven decision-making. Globally, data is a cornerstone for crafting, implementing, and monitoring effective policies. Data integration, the consolidation of information from diverse sources offers policymakers a comprehensive understanding of complex issues by combining fragmented datasets from government agencies, NGOs, research institutions, and public and private sectors. This holistic approach ensures that policies address economic trends and social welfare issues effectively.

Despite the wealth of data generated across sectors like healthcare, education, finance, and public safety, much of it remains siloed, fragmented, and underutilized. Addressing these gaps through data integration requires robust mechanisms for standardization, verification, and quality assurance. Reliable datasets enable in-depth analyses, identification of root causes, and predictions of policy impacts. For example, integrated health data from hospitals, surveys, and environmental monitoring systems can inform timely interventions for disease outbreaks.

Complementing integration, data visualization plays a crucial role in simplifying complex information, fostering transparency, and enhancing decision-making. Visual tools such as dashboards, charts, and heat maps enable policymakers to quickly interpret trends, patterns, and outliers. Interactive visualizations allow simulation of policy scenarios, such as tracking the impact of unemployment programs or monitoring environmental conservation efforts. Real-time visualization tools facilitate ongoing evaluation of policies, enabling adjustments to ensure alignment with goals, resource efficiency, and accountability.

S.No	Name	Description	
1	Dr. Akif, MD KPITB	**Key note speaker**	
2	Mr. Shadab Fariduddin	**Moderator**	
3	Dr ,Basit Ahmed Khan, GIS Expert	**Panelist**	
4	Dr. Rabia Irfan (Gold Medalist), Assistant Professor, NUST	**Panelist**	
5	Dr. Imtnan Ul Haq Qazi (Pride of Performance)	**Panelist**	
6	Sahibzada Naveed Jan Chief Operating Officer, NADRA	**Panelist**	
7	Waqar N. Qureshi, Director General ,Punjab IT Board	**Panelist**	
8	Dr. Bilal Anwar CEO, NDRMF	**Panelist**	
9	Mr. Imran Azhar, Founder & CEO, Creative Pakistan	**Panelist**	

Key Discussion Points

- **Dr. Muhammad Akif Khan** underscored the transformative power of data in public sector progress, focusing on bridging data gaps, integrating resources, and overcoming obstacles.
- Panelists shared best practices, including NADRA's integrated data model for comprehensive policy insights and the use of AI and Big Data by academia to support policy-making.
- Notable projects such as the PBS Digital Census demonstrated real-world applications of integrated data in national planning.

Actionable Points:

1. **Data Governance and National Policy**
   o Develop a National Data Governance Policy and Repository, led by PBS, to centralize data access across sectors.
   o Implement data privacy, security, and standardization frameworks, fostering transparency and accountability.
2. **Technology Infrastructure and Interoperability**
   o Adopt advanced frameworks like Pakistan Data & Technology Stack (Gov Stack) and X-Road for seamless data sharing.
   o Modernize technology infrastructure, including open APIs and metadata standards.
3. **Capacity Building and Public Engagement**
   o Enhance data literacy through training programs focused on AI and data visualization.
   o Use data storytelling techniques for effective communication with the public, encouraging a data-driven culture in government.
4. **Sustainable Practices and Public-Private Collaboration**
   o Promote partnerships to expand data capabilities and develop ethical, accessible data practices.
   o Establish a centralized portal for open data, enabling public access within legal limits.

The event underscored PBS's pivotal role in guiding Pakistan toward an integrated, data-centric policy landscape, supporting sustainable development and effective decision-making across sectors.
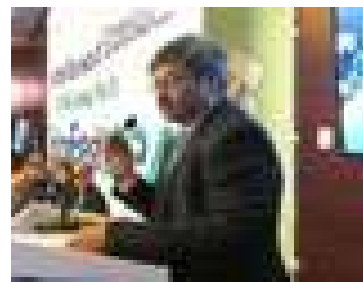
Theme: Data for Life & Equity

Topic: Data Integration for Growth and Development

Focal Person: Syed Abdul Qadir Shah

(DG PER, PBS)

Data integration is essential for fostering growth and development in Pakistan's economy, which is valued at over $350 billion and comprises agriculture, industry, and services contributing 25%, 21%, and 54% to GDP, respectively. Despite this potential, fragmented and underutilized data hampers productivity and policy effectiveness across sectors. The agriculture sector, a cornerstone of rural economies and downstream industries like textiles and food processing, suffers from skewed landholdings 90% of farms are under 12 acres limited access to markets and financial systems, and vulnerabilities to climate change. Integrating data on agricultural output, land records, and geospatial indicators can help improve productivity, enable fiscal assessments, and unlock value-added industrial opportunities. Similarly, the industrial sector faces challenges due to a concentration of large-scale enterprises in urban hubs and a lack of linkages with micro, small, and medium enterprises (MSMEs), which limits growth and innovation. Integrated data on enterprise performance can empower organizations like SMEDA and the State Bank of Pakistan to design targeted policies and enhance private sector engagement.

The services sector, particularly retail, is the largest contributor to GDP and is expanding beyond major urban centers, driven by digital payment systems, inventory management tools, and e-commerce platforms. However, these advancements are largely consumption-focused, with little attention to enhancing productivity among small and medium producers. Data integration from sources like geotagged retail structures, electricity consumption, and FMCG sales can provide insights to support retail growth, improve tax documentation, and create scalable opportunities for startups and supply chains. Fiscal opportunities across sectors are vast; for instance, integrating SUPARCO data with land records can enable precise agricultural taxation, while retail data can be analyzed to estimate revenue and tax potential, contributing to an equitable and effective fiscal system.

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S.No	Name	Description	
1	Dr. Mehmood Khalid, Senior Research Economist at the Macro Policy Lab, PIDE	**Moderator**	
2	Mr. Najamus Saqib Shabbir, Additional Director, SME, Housing & Sustainable Finance	**Panelist**	
3	Prof. Dr. Fateh Muhammad Marri, VC SAU,	**Panelist**	
4	Dr Irfan Chatha, SDPI	**Panelist**	
5	Nadia Jahangir Seth General Manager Policy and planning division SMEDA	**Panelist**	
6	Mr. Guillermo Mont, Social Protection Specialist, ILO	**Panelist**	
7	Mr. Mehtab Haider, Journalist, The News		
8	Ms. Amna Masood, Invest 2 Innovate		

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Key Discussion Points

- Dr. Mahmood Khalid praised the Data Fest event, describing it as a significant platform that demonstrated strong interest in data among academia, researchers, and data providers.
- Mr. Montt emphasized that while technology and data availability exist, the unwillingness to share data is a significant barrier. He argued that readiness to share data is more critical than mere availability for effective data integration.
- Ms. Nadia Jahangir Seth, SMEDA spoke about the importance of SMEs and elaborated how this sector will come into play to ensure and achieve the desired results if facilitated by the government.
- Dr. Irfan Chatha, SDPI focused on significance of the quality of data and its presentation. He also stressed that simple and accessible formats of data is essential for the public.

Actionable Points:

- **Data Integration:** Panelists unanimously agreed on the need for enhanced data integration to address gaps in critical sectors like agriculture, SMEs, and finance.
- **Collaboration:** Increased collaboration between governmental and financial institutions is needed to bridge gaps in data sharing and accessibility.
- **Technology Use:** There is a strong recommendation for leveraging technology to collect, process, and share data more efficiently, particularly for SMEs.
- **Data for Policy Making:** Panelists emphasized using integrated data to shape more effective policies, particularly in addressing sector-specific challenges such as access to markets, finance, and technology.
- **Future Initiatives:** There is a call to continue initiatives like DataFest to promote the use of data across various sectors, ensuring sustainable development and equitable growth.

The panel discussion emphasized the crucial role of data integration in driving Pakistan's sustainable development. Experts from diverse sectors highlighted the need for robust data systems to improve policy-making, economic growth, and social outcomes. Actionable points included enhancing public-private sector collaboration, leveraging technology for data accessibility, and fostering data-driven decision-making to ensure equitable growth and development across the country.

Theme: Data for Life & Equity

Topic: Closing Human Capital Gaps (Education)

Focal Person: Mr Shaukat Khan
(DDG Labor Force, PBS)

Pakistan, with a population of 241.5 million as per the 2023 census, is grappling with significant education challenges, particularly in terms of access and quality. The latest data reveals that over 25 million children aged 5-16 are out of school, and a staggering 80% of late primary-age children lack proficiency in reading. This situation is particularly concerning as it is 21 percentage points worse than the average for South Asia and 19 percentage points worse than the average for lower-middle-income countries. Despite efforts by the Pakistan Institute for Education and national surveys like PSLM and PDHS, education gaps persist, especially among marginalized communities, and have been further exacerbated by the COVID-19 pandemic and the 2022 floods. These challenges hinder the development of human capital, which is crucial for both economic growth and social development.

The panel discussion will focus on how education data systems can be leveraged to improve access to schooling and learning outcomes across Pakistan. One key issue is whether current data systems are effective in understanding the educational needs of disadvantaged groups, such as girls in rural areas, and identifying areas where progress is slow. The discussion will also address the investments required to improve education data systems at the systems, processes, and people levels. Identifying successful initiatives and partnerships in education data that have the potential to scale and sustain improvements will also be a critical point of focus. Moreover, the panel will explore how Pakistan can take advantage of its expanding digital sector to maximize data integration, thereby enhancing the effectiveness of education systems and policies. The ultimate goal is to identify strategies to address education access and quality issues, particularly under the framework of Sustainable Development Goal 4, and build a more resilient, skilled, and inclusive population.

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S.No	Name	Description	
1	João Pedro Azevedo Chief Statistican UNICEF	**Key note speaker**	
2	Ms. Jassica Albert Assistant Professor Lahore University of Management	**Moderator**	
3	Dr. Shahid Soraya Director General Pakistan Institute of Education	**Panelist**	
4	Baela Raza Jamil Chief Executive Officer Idara-e- Taleem-o-Aagahi (ITA)	**Panelist**	
5	Dr Shereen Mustafa Narejo, Chairperson of the Chief Minister's Inspection team	**Panelist**	
6	Prof Dr. Bushra Mirza Member Higher Education Commission		

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Key Discussion Points

- Mr. Joao Pedro Azevedo described that by 2050, 90% of the global workforce will come from low- and middle-income countries, necessitating significant education system expansion, especially in Sub-Saharan Africa.
- Ms. Baela Raza Jamil, (Private Secretary ITA) emphasized the unequal access to quality educationand its impacton Pakistan's development.
- Dr. Shereen Mustafa Narejo (Secretary Planning and Development, Government of Sindh) shared the complexities of using education data for effective policymaking within a subnational context.
- Experts, including Mr. Joao Pedro Azevedo (UNICEF) and other notable educators, emphasized the critical role of data in addressing educational inequities, improving quality, and enhancing access. The discussion covered topics such as:

1. The use of data to support educational equity and access.
2. Challenges in using data to understand educational needs.
3. The role of technology, AI, and data integration for real-time insight

Actionable Points:

1. **Data Integration and Standardization:**
   Develop a national framework for data integration across sectors (education, health, social welfare) and synchronize indicators with international benchmarks.
2. **Real-Time Data Collection and Accessibility:**
   Upgrade PBS systems to enable real-time data access and implement open data policies to improve transparency and accountability.
3. **Cross-Sectoral Coordination:**
   Establish joint working groups between PBS, education ministries, and social protection sectors to analyze multi-dimensional data for better policy decisions.
4. **Capacity Building:**
   Train PBS staff and provincial officers in advanced data analytics and collaborate with universities for deeper analytical insights.
5. **Data Timeliness and Quality Control:**
   Improve data reporting cycles and implement quality control measures to ensure accuracy and timely reports.

The panel highlighted the importance of collaboration, data literacy, and continuous professional development for improving educational outcomes.

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During **Data Fest 2024**, **Six** workstations have been designed, each featuring different presentations scheduled in various time slots.

Work Station and Presentation Detail

S.No	Item	Total
1	Work Station	6
2	Total Presentation	50
3	Time Slots	42
4	Filled Slots	42

The Detail of all the workshop and time slot is discussed below

DataFest-2024

Data Fest, 2024, held on 21-22, October, 2024 is first ever prime event hosted by Pakistan Bureau of Statistics at Pak China Friendship Center, Islamabad in collaboration with UNFPA, UNICEF and other partners to provide a platform to data users and producers to celebrates data science and its ever-evolving impact on the Economy of Pakistan. This Festival has multiple activities, including stalls, keynote presentations, panel discussion, and most importantly workshops where experts from academia, government organizations, NGOs and INGOs participated in hybrid format and centered around understanding data for life and equity with five thematic areas.

A dedicated group named Workshop Management was formed to oversee all aspects related to the workshops i.e.

✓ Coordination with speakers,

✓ Selection of papers, time slot allocation

✓ IT support services.

Therefore, **Dr. Bahrawar Jan**, Deputy Director General (Price/Trade/Industry), **Mr. Rizwan Bashir**, Director (Social Statistics), and **Mrs. Kanwal Murtaza**, Chief Statistical Officer (Field Services) were designated as focal persons for workshop management.

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The Data Festival workshops were organized across six workstations, with three located on the ground floor and three on the first floor. The schedule for the two-day event was structured as follows:

Day 1:

- There were **3 sessions** each of one-hour duration, for all six workstations.
- This provided a total of **18 presentation slots** for the first day.

Day 2:

- There were **4 sessions**, each of one-hour duration, for all six workstations.
- This offered a total of **24 presentation slots** for the second day.

In total, the festival featured **42 presentation slots** during two days' event, ensuring a rich exchange of ideas, research, and insights from diversified sectors. Owing to many interested presenters, PBS higher authorities decided to provide opportunities to as many participants as possible to showcase their work at this important forum. To accommodate more presenters time slots were adjusted where necessary, with some being divided into **30-minute sessions**. This flexible approach ensured broader participation while maintaining the quality and focus of each presentation. However, there papers were scrutinized and irrelevant or out of scope papers were screened out. This rigorous process took much time of the team working on it.

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The workshop, initially scheduled to span two days, was successfully concluded within the same timeframe. Notably, the number of presentations exceeded the planned **52 presentations** by four. Thus, a total of **56** Presentations were delivered across 42 time slots at 6 workstations. On the **first day**, presentations were conducted in **three slots** and on **day two** presentations were organized into **four slots**:

Slot	Time
1	12:00-1:00 PM
2	2:15-3:15 PM
3	3:15-4:15 PM

Slot	Time
1	10:00-11:00 AM
2	11:30 AM-12:30 PM
3	2:00-3:00 PM
4	3:30-4:30 PM

Days	Workshop Station	No. of Presentations	No. of Presenters	No. of Organizations
Day 1	1	3	3	2
	2	3	3	2
	3	4	4	3
	4	4	6	3
	5	4	4	2
	6	4	4	3
	Grand Total	**22**	**24**	**15**
Day 2	1	5	7	5
	2	6	6	3
	3	6	7	3
	4	5	7	4
	5	6	4	4
	6	6	7	4
	Grand Total	**34**	**38**	**23**

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ATTENDANCE OF WORKSHOPS

Work Station	Presenter	Topic	Total
WS1	Mr. Attiq ur Rehman	Data for Investment in 21st Century	11
WS1	Dr. Saleha Naghmi	Tidy Verse (Working the Power of Data)	34
WS1	Dr. Syed Wasim Abbas	Data for Governance and Growth	14
WS1	Mr. Muhammad Mubashir Mukhtar	National Accounts and Economic Statistics in Public Policy Domain	23
WS1	Dr. Madiha Iqbal	Data Driven Interventions for Mental Health	23
WS1	Dr. Mehrosh Khalid	Empowering Decision Making Through Data Analysis and Visualization	26
WS1	Mr. Muhammad Kashif Mushtaq Kanju	Technological Initiatives In KP	21
WS1	Mr. M Ibrahim Syed Saddam & Ms. Ms. Aisha Irum	Data Driven Urban Solutions	23
WS2	Ms. Joao Pedro	Child and Mother Health	13
WS2	Dr. Bahrawar Jan	Quantile-Wise Cost-of-Living Impact	17
WS2	Mr. Muhammad Zaman Bhatti	Pakistan Economy: Easy Access to Data	17
WS2	Ms. Shazia Begum	Growth and Development	20
WS2	Mr. Ihsan-ul Haq	Unveiling Health Financing in Pakistan: Insights from National Health Accounts	15
WS2	Mr. Muhammad Farooq	Equity Profile Reliving Patterns of Inequality	19
WS2	Ms. Saira Abid	Punjab User Interface	17
WS2	Dr. Verda Salman	Estimating Food Security Indicators with Household Integrated Economic Survey	18
WS2	Dr. Amber Sarwar	Habitats of Chilli Pepper in China under Climate Change	14
WS3	Mr. Rizwan Bashir	Crime Statistics; Enhancing of Data Coverage and Improving Time Lag and Frequency for Emerging Data Needs	10
WS3	Dr. Abid Rauf	Crime Statistics; Enhancing of Data Coverage and Improving Time Lag and Frequency for Emerging Data Needs	10
WS3	Mr. Muhammad Asif	SBP EasyData-making data access easier	18
WS3	Mr. Fahad Mirza	DASHBOARD/ Leveraging the Power of Data through story telling	16
WS3	Dr. Abid Rauf	Enhancing E-Governance through recommender System; Personalize services for citizen engagement and policy efficiency	9

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ATTENDANCE OF WORKSHOPS			
WS3	Ms. Kishwar Khan	Essential Data for Research on Competition Issue: Insights Pakistan Competition Act 2010	14
WS3	Mr. Saqib Sultan	Social Development Index	17
WS3	Mr. Izzat Ali Chachar	Empowering Decision making through data	13
WS3	Ms. Saman Rai	Role of SBCC in Population Management	17
WS3	Ms. Rukhsana Kausar	Data Storytelling: Fostering a Culture of Evidence Based Decision Making	12
WS3	Mr. Yasir Raheem	Establishment of Data Center for Population Planning (Poster Presentation)	12
WS3	Prof. Dr. Jahangir Khan	Remote Sensing Spatial Observations using Vegetation Temperature Condition Index for Land Surface Temperature and Drought Monitoring over Punjab of Pakistan	8
WS4	Dr. Sundus & Dr. Yasir NUST University	Integrated Approaches to Data Analysis and Visualization: Learning Power BI for Strategic Business insights and Decision Making	18
WS4	Dr. Zahid Asghar, School of Economics, QAU	Data as the new Currency: Challenges and Opportunities in the 4th Industrial Revolution.	19
WS4	Ms. Sobia Munawwar, Director DP, PBS	Decision Support System on Inflation- DSSI	12
WS4	Mr. Akbar Ali Shirazi & Mr. Zeeshan Ullah, NEECA	Data Driven Government Policy Making & Pakistan's Fan Replacement Program	17
WS4	Ch. Sajid Rasool, Director General, BOS Punjab	Data Driven Decision Making Official Statistics	25
WS4	Mr. Isacc Shahzad, Assistant Director, BOS Punjab	Complex survey Designs and survey Estimation	15
WS4	Malik Rizwan Asghar, Deputy Director (IT), Metrological Deptt.	Data Acquisition, visualization and forecast Process	30
WS4	Dr. Ali Turrab, Zill e Huma, PHC Global	Data for Life and Equity: Addressing gaps in National Health Data and AI Driven Health Care	26
WS4	Dr. Muhammad Habib, Assistant Professor Arid Agriculture & Abdul Hameed, Researcher	Exploring the performance of different machine learning algorithms on different datasets for predictive analysis	6
WS5	Ms. Maryam Mashal (Usman)	Localized Mobile Health Application	30
WS5	Mr. Rohail Amjad	Leveraging Technology or Efficient Household Survey Data Collection	13
WS5	Mr. Rohail Amjad	Survey Data Processing Using Computer Assisted	18

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ATTENDANCE OF WORKSHOPS

WS5	Mr. Zeeshan Ullah	Data Driven Government Policy Making and Pakistan's Fan Replacement Program	15
WS5	Dr. Abhia Zahra	Longitudinal Data from Public Sector Organization and Bureaucracy	15
WS5	Mr. Nouman	Interdisciplinary Data Integration and Visual Analytics	16
WS5	Dr. Ayesha Nazuk	Exploring the Potential and Challenges of E- Governance in Pakistan	12
WS5	Dr. Tanveer ul Islam	Data Visualization with R	18
WS5	Mr. Aftab Afridi	Gender Data Portal	29
WS5	Ms. Maryam Mashal (kainat)	Using Predictive Technologies, the Role of Monsoon Forecasting in Disaster Risk Management	31
WS6	Dr. Sohail Khan	FSNIS FAO Pakistan & ACWA Portal	16
WS6	Mr. M Ashfaq Ahmed (DG)	Data Management & Operations for Dispensation of Justice Eradication of Mal-Administration	38
WS6	Dr. Abdul Qayyum, DG. (CRS)	"Introduction, crop reporting services Punjab. Methodology of crop area, estimation, statistical method: remote sensing. Methodology of crop yield estimation. Important surveys"	26
WS6	Miss Rehana (Consultant Information manager)	FSNIS	16
WS6	Mr. Saddam (IT Specialist)	ACWA Portal	20
WS6	Ms. Sobia Munawar (PBS)	Data Integration & Visualization	16
WS6	Mr. Arsalan (PBS)	Data Integration & Visualization	20
WS6	Miss Mehrun Nisa	Navigating to Data Governance Landscape & Healthcare and Generative AI: Transforming the Future	13
WS6	Miss Amna Sajid	HealthCare and Generative AI-Transforming the Future	17
WS6	Mr. Arshad Mahmood	Hydroponics Technological Inventions in Agriculture Framing	18
WS6	Mr. Jahangir Khan	Security and Exchange commission of Pakistan	15
WS6	Dr. Sohail Khan	High Performance Computing for Data Science Application	25
Grand Total			**1086**

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Presentation 1
Presenter: Mr. Attiq ur Rehman
Organization: Pakistan Bureau of Statistics (PBS)

Topic: Data for Investment
Key Highlights:
- Transformation of data from information to an asset
- Analysis of gross, fixed & capital investment trends
- Data on GFCF as a basis for future investment planning

Chair: Dr. Abdul Zahid Khan**,** Chairman DTM (IIUI)

Presentation 2
Presenter: Prof. Dr. Saleha Naghmi
Organization: Kinnaird College for Women, Lahore
Topic: Tidy verse (Working the Power of Data**)**
Key Highlights:
- Introduction to tidy data
- Data transformation using dplyr
- Graphical representation using ggplot2
- Analysis of MICS survey 2018

Chair: Dr. Ayesha Nazuk (NUST)

Presentation 3
Presenter: Dr. Sayad Waseem Abbas
Organization: Pakistan Bureau of Statistics (PBS)
Topic: Rural Statistics
Key Highlights:
- Improving living standards in rural areas
- Development of rural infrastructure
- Identifying rural area concentrations for health, education, and housing needs
- Importance of rural development in decentralized planning

Chair: Dr. Saleha Naghmi

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Presentation 1
Presenter: Joao Pedro Azevedo
Organization: UNICEF

Topic: Child and Mother Health
Chair: Shazia Begum (PBS)

Presentation 2
Presenter: Dr. Baharawar Jan
Organization: Pakistan Bureau of Statistics (PBS)
Topic: Quantile-Wise Cost-of-Living Impact
Key Highlights:
- Determined quantile-wise growth rates of expenditure for each commodity group using the Consumer Price Index (CPI).
- Estimated cost of living based on growth rates, commodity group weights, and indices.
- Showed disparity in cost of living between rich and poor.
- Analyzed the disparity in per-capita income and cost of living growth.

Chairs: Mr. Tariq Bashir (PBS)
Co-chair: Dr. Ehtesham Gull (PBS)

Presentation 3
Presenter: Muhammad Zaman Bhatti
Organization: Finance Division

Topic: Pakistan Economy: Easy Access to Data
Key Highlights:
- One-stop digital platform for socio-economic data.
- Data visualization.
- Comparative analysis.

Chair: Mr. Naseer Ahmad (PBS)

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Presentation 1
Presenter: Muhammad Asif
Organization: State Bank of Pakistan (SBP)
Topic: SBP EasyData - Making Data Access Easier
Key Highlights:
- EasyData is an online repository of economic data by SBP.
- Provides access to historical and current data from public and private sources.
- User-friendly interface to facilitate easier data access.
Chair**: Dr. Liaqat (PBS)

Presentation 2
Presenter: Fahad Mirza
Organization: World Bank
Topic: Leveraging the Power of Data through Storytelling
Key Highlights:
- Evolution of data storytelling (e.g., John Snow's cholera map, Napoleon's march).
- Importance of visualization in revealing insights and altering data interpretation.
- Use of Scrollyboard for interactive storytelling to enhance audience engagement.
Chair: Mr. Attiq ur Rehman (PBS)

Presentation 3
Presenter**: Rizwan Bashir**
Organization: Pakistan Bureau of Statistics (PBS)
Topic: Crime Statistics: Enhancement of Data Coverage
Key Highlights:
- Overview of crime statistics from 1980-2023.
- Challenges in crime data collection: provincial data only, no district-level data, irregular updates.
- Solutions: National-level data fusion, GIS integration for trend analysis, real-time data sharing, crime visualization.

Chair: Dr. Sundas (NUST)

Presentation 4
Presenter: Dr. Abid Rauf
Organization: UET Taxila
Topic: Statistical and Machine Learning Approaches in Recommender Systems
Key Highlights:
- Applications of recommender systems in e-governance.
- Use in personalized public service delivery and citizen engagement.
- Focus on data privacy and bias challenges.
- Enhanced transparency, efficiency, & citizen participation.

Chair: Dr. Sundas (NUST)

DataFest-2024

Presentation 1
Presenter: Dr. Sundas & Dr. Yasir
Organization: NUST

Topic: Integrated Approaches to Data Analytics and Visualization: Leveraging Power BI for Strategic Business Insights and Decision Making

Key Highlights:
- Data Analytics for Analytic Decision Making
- Basic Concepts of BI Architecture
- Extract, Transform and Load (ETL), Exploratory Data Analysis (EDA)
- Descriptive, Diagnostic, Predictive, and Prescriptive Analytics
- Use of Analytical Tools like Power BI

Chair: Mr. Rizwan Bashir (PBS)
Co-chair: Mr. Syed Sibt e Hassam (SCP)

Presentation 2
Presenter: Dr. Zahid Asghar
Organization: Quaid e Azam University

Topic: Data as the New Currency

Key Highlights:

- Data as the cornerstone of modern-era governance, AI, and innovation
- Quality Data
- Data Trust
- Data Privacy
- Citizens of Data Science
- Data Monetization

Chair: Dr. Khalid Farooq, Chief SO

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Presentation 3
Presenter: Miss Sobia Munawar
Organization: Pakistan Bureau of Statistics (PBS)

Topic: DSSI (Digital Price Statistics Survey)

Key Highlights:

- Digital Price Statistics Survey
- DSSI Features
- Gap Analysis (DC Rates and SPI)
- Gap Analysis (Wholesale and Retail)
- Data Integration and Need-based Assessment

Chair: Dr. Khalid Farooq, Chief SO

Presentation 4
Presenter: Mr. Zeeshan Ullah and Mr. Akbar Ali Sherazi
Organization: NEECA (National Energy Efficiency and Conservation Authority)

Topic: Pakistan's Fan Replacement Program

Key Highlights:

- Data-driven policymaking
- NEECA Introduction & Action Plan 2023-30
- ECBC (Energy Conservation Building Code)
- Fan Replacement Program – Justification
- Strategic Impact of the Program

Chair: Mr. Rafique Hussain Talpur (PBS)

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Presentation 1
Presenter: Dr. Abiha Zahra
Organization: Department of Governance & Global Studies, Info Technology University, Lahore

Topic: Longitudinal Data from Public Sector Organizations and Bureaucracy: Trends, Insights, and Challenges

Key Highlights:

- Appointment patterns of senior bureaucratic leaders/heads in the Public Sector
- Competence of bureaucratic leadership (Education and Experience)
- Gender distribution at leadership positions across various policy fields
- Patterns and Insights into the term in office at senior bureaucratic positions during various political periods

Chair: Dr. Kalsoom Akhtar Chaudhry (HOD, Statistics, Kinnaird College)

Presentation 2
Presenter: Dr. Ayesha Nazuk
Organization: National University of Science & Technology (NUST)

Topic: Exploring the Potential Challenges of E-Governance in Pakistan

Key Highlights:

- Introduction to E-Governance
- E-Governance Models
- The NGO Disclosure Index
- Top Performers

Chair: Dr. Zahid Asghar (QAU)

Presentation 3
Presenter: Dr. Tanweer ul Islam
Organization: National University of Science & Technology (NUST**)**

Topic: Data Visualization with R

Key Highlights:

- Histogram
- Wage Distribution
- Scatter Plot
- Regression Line

Chair: Dr. Zahid Asghar (QAU)

Presentation 4

Presenter: Mr. Noman

Organization: Food & Agriculture Organization (FAO)

Topic: Digitalization of FAO Farmer Field School (FFS)

Key Highlights:

- FFS Database and Dashboard

- FFS Indicators

- Drill Down for Gender Disaggregation

- Monitoring and Data Visualization in Action
Chair: Dr. Amjad Javed Sandhu (PBS)Co-Chair: Dr. Rizwan Bashir Sandhu (PBS)

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Presentation 1
Presenter: Mr. Ashfaq Ahmed
Organization: Wafaqi Muhtasib

Topic: Data Management and Operation at Wafaqi Muhtasib for Dispensation of Justice and Eradication of Maladministration

Key Highlights:

- WMS data helps analyze governance quality and identify systemic issues in Federal Government Agencies. It supports policy changes, gap identification, improved service delivery, and eradication of maladministration.

- Structured public feedback channels refine services and adapt to changing needs. The data enhances standards for justice and fairness in administration.

Chair: Mr. Shaukat Khan, DDG (PBS)

Presentation 2
Presenter: Dr. Abdul Qayyum
Organization: Crop Reporting Survey, Punjab (CRS)
Topic: Introduction, Crop Reporting Services Punjab. Methodology of Crop Area Estimation, Statistical Method: Remote Sensing, Methodology of Crop Yield Estimation, Important Surveys
Key Highlights:
- Timely and accurate estimation of acreage and production for all crops ensures better planning and food security.
- Automated systems and scientific models reduce human intervention in data collection and dissemination for reliable crop estimates.
Chair: Dr. Naveed, JACC (PBS)

Presentation 3
Presenter: Miss Mehrun-Nisa
Organization: National University of Modern Languages, ICT (NUML**)**

Topic: Social Impact of Machine Learning & Applications

Key Highlights:
- Policies, guidelines, and standards.
- Data quality framework.
- Privacy, compliance, and security.
- Information architecture and integrations.
- Reporting and analytics.

Chair: Shazia Begum (PBS)

Presentation 4
Presenter: Miss Amna Sajid
Organization: National University of Modern Languages, ICT (NUML)

Topic: Healthcare and Generative AI: Transforming the Future

Key Highlights:
- Policies, guidelines, and standards.
- Data quality framework.
- Privacy, compliance, and security.
- Information architecture and integrations.

Reporting and analytics.

Chair: Shazia Begum (PBS)

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Presentation 1
Presenter: Muhammad Mubashir

Organization: Economic Data & Statistics Department, NEOM Saudi Arabia

Topic: National Accounts and Economic Statistics in Public Policy Domain

Key Highlights:

- Importance of National Accounts and Economic Statistics in public policy
- Visualization of NEOM and Waikato Region using Tableau
- Insights on productivity and household income shaping fiscal strategies

 Chair: Dr. Mehrosh Khalid (IIUI)

Presentation 2
Presenter: Dr. Madiha Iqbal

Organization: Directorate General IT, Balochistan

Topic: Data-Driven Interventions for Mental Health

Key Highlights:
-Focus on generational trauma and untreated mental health issues
-Whispering Hope: a mental health intervention tool for anxiety and depression severity prediction
-Use of data for developing predictive models
Chair: Dr. Mehrosh Khalid (IIUI)

Presentation 3
Presenter: Dr. Mehrosh Khalid
Organization: IIU(Department of Bioinformatics)
Topic: Empowering Decision-Making Through Data Visualization and Analysis
Key Highlights:

- The transformative role of data in modern governance
- Data-driven strategies in public policy
- Enhancing public services through data analysis

Chair: **Mr.Munwar Ali Ghanghro (PBS)**

Presentation 4
Presenter: Kashif Mushtaq Kanju
Organization: Police Department, KP

Topic: *Technological Initiatives in KP*

Key Highlights:

- Welfare initiatives in health and education sectors
- Police Sahulat SOP and digital app for online services

Chair: Muhammad Ibrahim (RDS)

Presentation 5
Presenters:
1. Muhammad Ibrahim
2. Syed Saddam Haider
3. Aisha Irum
Organization: Research and Development Solutions, Islamabad

Topic: *Utilizing Proxy-Based Methodologies to Enhance HDI Estimates at the District Level*
Key Highlights:
- Use of visualization tools to unlock insights from large datasets
- Understanding of shapefiles and triangulation of datasets
- Survey data analysis for policy-making
Chair: Mr. Azizullah Bhatti (PBS)

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Presentation 1
Presenter: Mr. Ihsan ul Haq
Organization: Pakistan Bureau of Statistics (PBS

Topic: "Unveiling Health Financing in Pakistan: Insights"

Key Highlights:

- Critical landscape of healthcare financing through National Health Accounts (NHA).
- Importance of robust health financing data for shaping policies and improving health outcomes.

Chair: Prof. Donald Roy McNeil

Presentation 2
Presenter: Shazia Begum
Organization: Pakistan Bureau of Statistics (PBS)

Topic: Growth & Development

Key Highlights:

- Trade's contribution to economic growth and development.
- Analysis of trade statistics using time-series data.
- Improving the efficiency of economic resources.

Chair: Dr. Muhammad Afzaal (Development Project Planning and Commission)

Presentation 3 & 4
Presenters: Miss Saira Abid, Mr. Muhammad Farooq
Organization: Bureau of Statistics, P&D Board, Punjab **(BOS)**

Topic 1: Equity Profile Reliving Patterns of Inequality

Key Highlights: Revealing patterns of inequality.

Topic 2: Punjab Info User Interface Workshop

 Key Highlights:

- Understanding Punjab Info.
- Key features of Punjab Info.
- Database summary and retrieval.

Chair: Mr. Ihsan ul Haq (PBS)

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Presentation 5
Presenter: Dr. Verda Salman
Organization: National University of Sciences and Technology (NUST)

Topic: Estimating Food Security Indicators with Household Integrated Economic Survey

 Key Highlights:

- Method for estimating food security indicators.
- Household Integrated Economic Survey (HIES).
- The Food Insecurity Experience Scale (FIES).

Chair**: Ms. Rizwana Siddique (PBS)**

Presentation 6
Presenter: Dr. Amber Sarwar
Organization: Rawalpindi Women University

Topic: Habitats of Chilli Pepper in China under Climate Change

 Key Highlights:

- Study used a model to predict where chili peppers can be grown in China with climate changes.
- Temperature and rainfall are important factors.

Chair: Mr. Suhaib (PBS)

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Presentation 1
Presenter: Kishwar Khan
Organization: Competition Commission of Pakistan
Topic: Essential Data for Research on Competition Issues
Key Highlights:
Data collection, compilation, and analysis for enforcing the Competition Act.

- Role of market data in addressing competition law violations.
- Data-driven research enhances regulatory enforcement and governance.
- Importance of accessible and relevant market data for analyzing market dynamics.

Chair: Syed Abul Qadir (PBS)

Presentation 2
Presenter: Saqib Sultan
Organization: Pakistan Bureau of Statistics (PBS)
Topic: Social Development Index
Key Highlights:

- Overview of data collection modules in the digital census.
- Analysis of education, living standards, and ICT.
- District-wise analysis of out-of-school children in the 2023 Census.

Chair: Miss Kishwar Khan (CCP)

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Presentation 3
Presenter: Izzat Ali Chachar
Organization: Bureau of Statistics (BOS), Sindh
Topic: Empowering Decisions through Data
Key Highlights:

- Use of data analytics to inform decision-making and reduce errors.
- Data visualization to present complex information for accurate decisions.
- Predictive analytics to forecast trends and identify risks.
- Creating a data-driven culture for collaboration and continuous improvement.

Chair: Miss Kishwar Khan **(CCP)**

Presentation 4

Presenters: Yasir Rahim & Rukhsana Kausar
Organization: Population Welfare Department, Punjab
Topic: Data Storytelling for Evidence-Based Decision-Making
Key Highlights:

- Development of an ADP scheme to collect, organize, and analyze data for population planning.
- Data collected from national and provincial stakeholders and used for policy-making.
- Generated 20 data books for better decision-making and policy formulation.

Chair: Prof. Dr. Jahangir Khan (Sarhad University)

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Presentation 5
Presenters: Ms. Saman Rai
Organization: Population Welfare Department, Punjab

Topic: Role of SBCC in population Management.

Key Highlights:

- Role of SBCC.
- Important of data in SBCC.
- Prime Role of SBCC.
- Evaluation procedure in SBCC.
Chair: Prof. Dr. Jahangir Khan (Sarhad University)

Presentation 6
Presenter: Prof. Dr. Jahangir Khan
Organization: Sarhad University of Science and IT

Topic: Remote Sensing Spatial Observations Using MODIS Data Products
Key Highlights:

- Use of MODIS data for monitoring droughts and floods, including soil moisture information.
- Vegetation Temperature Condition Index (VTCI) approach for drought monitoring using NDVI and LST.
- Analysis of a 12-year time series for drought and flood events and their impacts on crop seasons.

Chair: Dr. Arshad Mahmood Malik
(Arid University)

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Presentation 1
Presenter: Ch. Sajid Rasool
Organization: Bureau of Statistics, P&D Board, Punjab (BOS)

Topic: Data-Driven Decision Making through Integration and Visualization

Key Highlights:

- About DDM (Data-Driven Decision Making)
- Types and Sources of Evidence
- Use of Statistics in Decision Making
- Official Sources of Evidence
- Role of MICS in DDDM

Chair: Malik Rizwan Asghar (Metrological Department)

Presentation 2
Presenter: Issac Shahza
Organization: Bureau of Statistics, P&D Board, Punjab (BOS)

Topic: Complex Sample Designs in Survey Estimation

Key Highlights:

- Complex Samples
- Design Features on Variance Estimation
- Effects of Design Features
- Complex Sample Variance Estimation Methods

Chair: Malik Rizwan Asghar (Metrological Department

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Presentation 3
Presenter: Malik Rizwan Asghar
Organization: Metrological Department

Topic: Data Acquisition, Visualization, and Forecasting Process

Key Highlights:

- Data Acquisition and Transformation
- Weather Data Sensors
- Data Analysis
- Weather Forecast Process
- Data Integration Approach
Chair: Ch. Sajid Rasool (BOS)

Presentation 4
Presenter: Dr. Ali Turab & Zille Huma
Organization: Precision Health Consultant Global (PHC)

Topic: Addressing Gaps in National Health Data

Key Highlights:

- Analysis of National-Level Health Survey Data
- Exploring Common Gaps and Issues in Data Collection, Quality, and Representation
- Challenges and Solutions: Implementation of AI Solutions in Healthcare

Chair: **Dr. Muhammad Habib** (Arid University)

Presentation 5

Presenter: Dr. Muhammad Habib & Mr. Abdul Hameed
Organization: PMAS Arid Agriculture University, Rawalpindi

Topic: Exploring the Performance of Various Machine Learning Algorithms on Diverse Datasets for Predictive Analysis

Key Highlights:

- Data Processing and Cleaning
- Exploratory Data Analysis
- Data Visualization Techniques
- Advanced Feature Engineering
- Hyperparameter Optimization: GridSearchCV
- Model Development: Logistic Regression, Decision Tree
- Ensemble Techniques: XGBoost Classifier, Random Forest Classifier
- Model Evaluation and Performance Metrics

Chair: **Mr. Ehtisham** (DP Centre, PBS)

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Presentation 1
Presenter: Mr. Aftab Ahmad Afridi
Organization: National Commission on the Status of Women (NCSW)

Topic: National Gender Data Portal

Key Highlights:

- NCSW Background and Introduction
- NGDP Background and Introduction
- NGDP Data Portal
- Data Collection Mechanism

Chair: Ms. Kainat
Co-Chair: Mr. Usman

Presentation 2
Presenter: Ms. Kainat
Organization: CECOS University of IT and Emerging Sciences

Topic: Using Predictive Technologies: The Role of Monsoon Forecasting in Disaster Risk Management

Key Highlights:
- Monsoon Forecasting: The use of predictive technology in forecasting monsoons.
- Disaster Risk Management: How forecasting can help mitigate disaster risks.

Chair: Mr. Yasir (DP, PBS)

Note: Ms. Maryam Mashal Khan did not attend the session. However, she sent her representative Ms. Kainat

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Presentation 3
Presenter: Mr. Usman
Organization: CECOS University of IT and Emerging Sciences

Topic: Localized Mobile Health Application: Fully Automated AI Diagnostic for Sustainable Pakistan

Key Highlights:
- Mobile Health Application: Introduction of an AI-powered health diagnostic tool.
- Sustainable Development: How the app contributes to healthcare sustainability in Pakistan

Chair: Mr. Yasir (DP, PBS)
Note: Ms. Maryam Mashal Khan did not attend the sess representative Mr. Usman.

Presentation 4
Presenter: Mr. Rohail Amjad Mughal
Organization: PITB (Punjab Information Technology Board), OSSP & BOS

Topic: Leveraging Technology for Efficient Household Survey Data Collection

Key Highlights:
- **Household Surveys:** Use of technology in conducting efficient surveys.
- **Data Collection Tools:** Introduction of tools for real-time data collection.

Chair: Dr. Maryam Mahsal
Co-chair: Mr. Sajid Rasool

Note: Ms. Maryam Mashal Khan did not attend the session.

Presentation 5
Presenter: Mr. Rohail Amjad Mughal
Organization: BOS, Punjab

Topic: Online Statistical System in Punjab - Integration of Official Statistics on Real-Time Basis
Key Highlights:
- Statistical Integration: Merging official statistics into one system for real-time access.
- Efficiency: How this system enhances the efficiency of data reporting.

Chair: Dr. Maryam Mahsal
Co-chair: Mr. Sajid Rasool
Note: Ms. Maryam Mashal Khan did not attend the session.

Presentation 6
Presenter: Mr. Zeeshan Ullah
Organization: NEECA (National Energy Efficiency and Conservation Authority)
Topic: Pakistan's Fan Replacement Program
Key Highlights:
- Data-driven policymaking
- NEECA Introduction & Action Plan 2023-30
- ECBC (Energy Conservation Building Code)
- Fan Replacement Program – Justification
- Strategic Impact of the Program

Chair: Mr. Akbar Ali Shirazi (NEECA)

Presentation 1
Presenter: Miss Rehana
Organization: FAO
Topic: FSNIS, FAO Pakistan
KEY HIGHLIGHTS:

- Food Security and Nutrition Information System (FSNIS)
- Pakistan Animal Identification & Traceability System (PAITS)

Chair: Dr. Sohail Khan (Sino-Pak Centre**)**

Presentation 2
Presenter: Mr. Saddam
Organization: FAO
Topic: Aqua Portal
Key Highlights:

- Enable climate-resilient decision-making in agriculture and rural areas.
- Improve accessibility to crucial water, climate, and agriculture data.
- Empower stakeholders with robust decision-making capacities

Chair: Dr. Sohail Khan (Sino-Pak Centre)

Presentation 3
Presenters: Ms. Sobia Munawar & Mr. Arslan Basheer
Organization: Pakistan Bureau of Statistics (PBS)
Topic: Data Visualization of PBS
Key Highlights:

- Benefits of API.
- Uses of Census data as a base.
- Dashboard preparation.
- Covid-19 impact analysis.

Chair: Dr. Sohail Khan (Sino-Pak Centre)

Presentation 4
Presenters: Dr. Arshad Mahmood Malik (Chairman, HOD)
Organization: PMAS Arid Agriculture University (PBS)

Topic: Hydroponics Technological Interventions in Agriculture Framing, Challenges and Opportunities

Key Highlights:
- Technical Manifestation.
- Case study of Successful Model in Pakistan.
- Financial Feasibility Benefits of API.
- Uses of Census data as a base.
- Dashboard preparation.

Chair: Mr. Rizwan Basheer, (PBS)

Presentation 5
Presenters: Mr. Jahangir Khan
Organization: Securities and Exchange Commission of Pakistan

Topic: Digital journey at SECP

Key Highlights:
- Introduction & Key Statistics
- Data Flow in Corporate Registry
- Secured Transaction Registry
- Regulatory Sandbox
- Major Reporting Systems
- Digitalization Journey & LEAP Project
- Way Forward

Chair: Mr. Arshad Mehmood (ARID agriculture)

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Event Day Activities

On the day of **DataFest 2024**, the media team played a pivotal role in ensuring the event ran smoothly, capturing all the key moments and managing media coverage across multiple platforms. The following protocols were executed efficiently:

Event Coverage:

The media team coordinated comprehensive event coverage by ensuring all major sessions, keynote speeches, and important activities were documented. This coverage was shared across various media platforms in real time.

Managing journalists and reporters: To ensure effective and accurate media representation, the media team provided with the necessary access and materials. This included providing access to key sessions, interviews, and event resources, ensuring that journalists could conduct thorough reporting on DataFest. The team facilitated seamless coordination to ensure that reporters were positioned at strategic points to capture the most important moments of the event.

Press Release Preparation: A comprehensive **press release** was drafted, summarizing the key activities, discussions, and outcomes of DataFest 2024. This press release was promptly distributed to media outlets to ensure the timely dissemination of event highlights. It provided essential information for news reports, extending the reach and impact of the event's messaging.

Photography and Videography: High-quality photography and videography were conducted throughout the event to capture significant moments, from the opening ceremony to the workshops and panel discussions. These visuals not only served as a record of the event but also provided content for future promotions, post-event reports, and social media updates.

Panel Discussion and Workshop Coverage: Ensuring the coverage of all **panel discussions and workshops** was crucial to document the expertise and insights shared by participants. The media team captured the discussions, highlighting key takeaways that could be shared with attendees, partners, and a broader audience through various media channels.

Guest of Honor Coordination: The **guest of honor**, **Prof. Ahsan Iqbal**, Minister for Planning, Development, and Special Initiatives, was formally welcomed and coordinated by the media section. This included managing the arrival, coordinating media access, and ensuring a professional and smooth presentation. The presence of the Minister was highlighted as a key moment in the event, reinforcing its importance.

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1.9 Million Views which is 4500% increase impressions

5.1k Interactions which mean 110% increase in engagement (In reference to previous weeks)
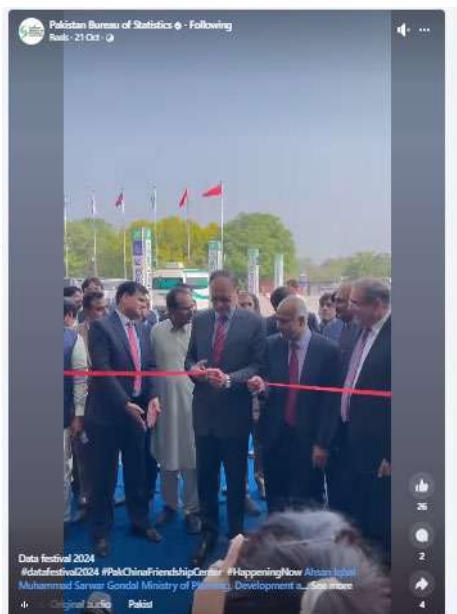
Live coverage was a central component of the media strategy for DataFest 2024, ensuring real-time engagement and extending the event's reach beyond those physically present. Key aspects of the live coverage included:

1. **Real-Time Engagement:** Live streaming on platforms like Facebook, Instagram, and YouTube enabled global participation and interaction during sessions, panels, and workshops.

2. **Dynamic Updates:** Quick videos, speaker quotes, and event highlights were shared instantly on social media, keeping audiences informed and engaged.

3. Interactive Features: Live Q&As and comment interactions fostered community engagement, allowing virtual attendees to connect with speakers and discussions.

4. **Behind-the-Scenes Access:** Instagram and Facebook Stories showcased preparations, casual moments, and unique perspectives, creating a more intimate experience.

5. **Influencer Collaborations:** Influencers amplified visibility with live updates, personalized content, and branded hashtags, attracting a broader, younger audience and driving participation.

6. **Extended Reach:** Hashtags, partnerships, and influencer support expanded the event's reach beyond physical attendees.

7. **Influencer Impact:** Social media influencers from data science, technology, and development fields boosted DataFest 2024's visibility and engagement.

8. **Authentic Coverage:** They shared live updates, event highlights, and behind-the-scenes moments, creating excitement and attracting a younger, tech-savvy audience.

9. **Participation Boost:** Influencers promoted key sessions and speakers, encouraging both in-person and virtual attendance through personalized invitations.

10. **Hashtag Strategy:** Branded hashtags and mentions enhanced visibility and engagement, making it easier for followers to track event updates and discussions.

On the day of DataFest 2024, the President of Pakistan conveyed a powerful message through social and digital media, emphasizing the critical role of data in driving the country's future growth and innovation. The message underscored the commitment of the government to support digital transformation, empowering young minds to leverage data for solving real-world challenges and contributing to Pakistan's technological advancement.
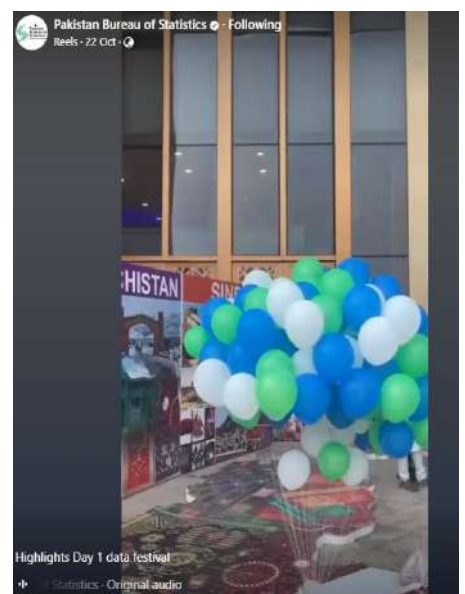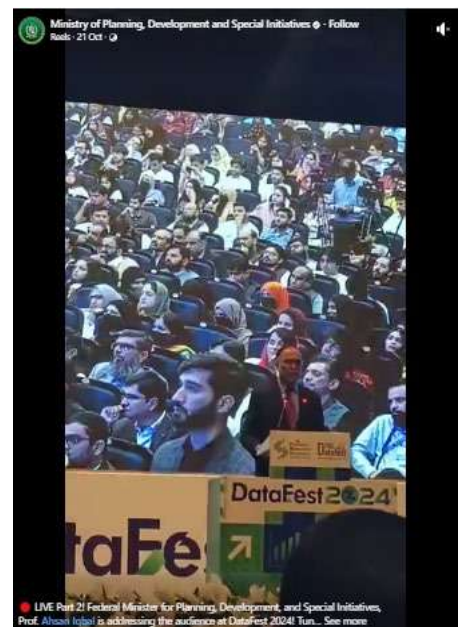
The Prime Minister of Pakistan, through a message shared across various social media platforms, stressed the importance of DataFest 2024 as a pivotal event in the country's journey toward a data-driven economy and praised the event for its role in connecting experts, innovators, and industry leaders, emphasizing that Pakistan's future lies in harnessing data to create sustainable solutions and improve lives.

The Minister of Ministry of Planning Development E Special Initiatives delivered a message through live-streamed channels, underscoring the government's strong support for initiatives like DataFest. In his message, he highlighted how the event fosters innovation and serves as a platform for young talent to explore and contribute to the data science field.

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Event Coverage

S.No	News Channels	Date
1	**PTV News**	21.10.2024
2	**24 News HD**	21.10.2024
3	**City 21**	21.10.2024
4	**Ary News**	21.10.2024
5	**Neo News**	21.10.2024
6	**ABN News**	21.10.2024
7	**Dunya News**	21.10.2024
8	**Roze News**	21.10.2024
9	**Associated Press Of Pakistan**	21.10.2024
10	**Radio Pakistan**	21.10.2024
11	**GNN News**	22.10.2024

Newspaper/Website

S.No	Newspaper/ Website	Date
1	**PTV news**	21.10.2024
2	**Dunya News**	21.10.2024
3	**Ary News**	22.10.2024
4	**PID**	21.10.2024
5	**Daily Jang**	21.10.2024
6	**Express Tribune**	21.10.2024
7	**Radio Pakistan**	21.10.2024
8	**The Nation**	21.10.2024
9	**Pakistan Observer**	22.10.2024
10	**Islamabad Today**	22.10.2024
11	**The Patriot**	22.10.2024
12	**Business Recorder**	22.10.2024
13	**Pakistan Today**	21.10.2024
14	**APP Digital Pakistan**	22.10.2024
15	**Daily Express**	22.10.2024
16	**Daily Nawa-i-Waqt**	22.10.2024
17	**Daily Ausaf**	22.10.2024
18	**Daily Dunya**	22.10.2024
19	**The Islamabad Post**	22.10.2024

S.No	Newspaper/ Website	Date
20	**Profit Newspaper**	22.10.2024
21	**Lead Pakistan**	22.10.2024
22	**Daily Asas**	22.10.2024
23	**Daily Nai Baat**	22.10.2024
24	**Balochistan Times**	22.10.2024
23	**DND**	22.10.2024
26	**D4 news**	22.10.2024
27	**Daily the Asian Sun**	21.10.2024
28	**Daily Relations Times**	22.10.2024
29	**The Diplomatic Insight**	22.10.2024
30	**Mettisglobal**	22.10.2024
31	**Pro Pakistani**	22.10.2024
32	**Asian Information Agency**	22.10.2024
33	**Soon Times**	22.10.2024
34	**Photo News**	22.10.2024
35	**Islamabad scene**	22.10.2024
36	**Urdu Point**	22.10.2024
37	**Daily Pakhtunkha News**	22.10.2024
38	**Daily SubhaNoe**	22.10.2024
39	**Daily the Capital Post**	22.10.2024
40	**Daily Alakhbar**	22.10.2024
41	**Daily Pakistan**	22.10.2024
42	**Daily Qavi Akhbar**	22.10.2024

Certificate and Shield Distribution

At DataFest 2024, a dedicated Certificate and Shield Distribution Ceremony was held to honor exhibitors, academic institutions, and incubation centers for their contributions to the event. This ceremony recognized their valuable participation and showcased their role in promoting data-driven innovation and collaboration. Each participant was awarded a certificate of appreciation and a commemorative shield, symbolizing PBS's gratitude for their commitment to advancing data initiatives in Pakistan. The awards highlighted the importance of cross-sector partnerships in fostering a vibrant ecosystem for data and developme

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To add a vibrant and memorable dimension to the DataFest 2024 experience, the evenings were dedicated to cultural performances and engaging amusement activities. These events offered attendees a much-needed opportunity to unwind, socialize, and enjoy after a day filled with insightful sessions and discussions. Showcasing Pakistan's rich cultural heritage, the evenings featured captivating traditional music, dynamic dance performances, and stunning local art displays. The festivities not only celebrated the country's cultural diversity but also fostered a sense of community and connection among participants in an informal and relaxed setting. These thoughtfully curated experiences enriched the overall event, creating lasting memories that extended beyond the conference's professional focus.

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DataFest 2024 provided numerous insights and highlighted several areas for improvement to ensure future success. Here's a summary of the key lessons learned:

1. **Private Sector Participation**: The involvement of private sector organizations was significantly lower compared to academia and government. To increase their participation, proactive engagement strategies, targeted outreach, partnerships, and customized incentives are necessary.
2. **Early Planning**: Effective planning is crucial for the success of large-scale events. Initiating preparations well in advance and setting clear milestones can help avoid last-minute challenges. A comprehensive project timeline and roadmap are essential.
3. **Sensitization Workshops**: Organizing pre-event sensitization workshops can boost stakeholder engagement and participation. These workshops help raise awareness about the event's objectives, share roles and responsibilities, and generate enthusiasm among participants.
4. **Budget Allocation**: Establishing a dedicated budget within the Pakistan Bureau of Statistics (PBS) ensures that financial resources are available and appropriately allocated, reducing reliance on last-minute funding or external sponsors.
5. **Coordination with Event Management Company**: Effective coordination between PBS and the event management company is vital. Regular meetings and clear communication protocols can prevent misunderstandings and ensure seamless collaboration.
6. **Internet Connectivity**: Despite efforts to provide dedicated internet facilities, connectivity issues persisted. Future events should have backup solutions and a technical team on standby to address any problems promptly.
7. **Event Highlights**: To keep attendees informed about ongoing activities, installing large SMD screens at strategic locations for live updates, real-time announcements, and key highlights is recommended.
8. **Ensuring Cleanliness**: Dedicated sanitary staff should be stationed at the venue throughout the event to maintain cleanliness and hygiene standards.
9. **Progress Proforma**: Designing and sharing progress proformas and reporting templates in advance can streamline the tracking of event progress and ensure efficient monitoring and documentation.
10. **Improving Food Service and Venue Arrangements**: Proper food management plans, including scheduling, queue management, and contingency measures, are necessary. Selecting a suitable and spacious food area will ensure attendee comfort and satisfaction.
11. **PBS Dashboard**: Enhancing the functionality and design of the PBS dashboard for future events is crucial. Training sessions for dashboard operators can ensure clarity, accuracy, and effective real-time data visualization.

Additional insights included the importance of timely content finalization, avoiding approval delays, the need for a dedicated Public Relations (PRO) department, and ensuring timely social media campaigns to generate awareness and engagement. Proper media space and refreshments, addressing staff shortages, and clearly defining roles and responsibilities to avoid overburdening the media team were also highlighted.

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Day-I (21 October, 2024) Workshop Details (18 Workshops x 1 Hour Each)

Time	W-1	W-2	W-3	W-4	W-5	W-6
S-1	(D1S1W1)	(D1S1W2)	(D1S1W3)	(D1S1W4)	(DS1W5)	(D1S1W6)
12:00 to 13:00	**Organization: Pakistan Bureau of statistics (PBS)** **Presenter:**Mr. Attiq ur Rehman **Topic:** "Data For Investment" **Chair:** Dr Abdul Zahid Khan, Chairman DTM, (IIUI)	**Organization: UNICEF** **Presenter:**Rep. UNICEF **Topic:** "Child and Mother Health" **Chair:** Ms.Rabia Awan(PBS)	**Organization: State Bank of Pakistan (SBP)** **Presenter:** REP.State Bank of Pakistan **Topic:** **Chair:** Dr. Liaqat,(PBS)	**Organization: NUST Presenter:**Dr. Sundas & Dr. Yasir **Topic:** Integrated Approaches to Data Analytics and Visualization: Leveraging Power BI for Strategic Business Insights and& decision making. **Chair:**Mr. Rizwan Bashir, Director, PBS	**Organization:**Dept of Governance & Global Studies, Info Technology University. LHR **Presenter:** Dr. Abiha Zahra **Topic:** "Longitudinal Data from Public Sector Organizations and Bureaucracy: Trends, Insights and Challenges". **Chair:** Ehtesham Abbasi (PBS)	**Organization:** Wafaqi Muhtisb **Presenter:** Ashfaq Ahmed **Topic:** " Data Management and Operation at Wafaqi Muhtisb for Dispensation of Justice and eradication of maladministration" **Chair:** Mr. Shaukat Khan,DDG, (PBS)
	BREAK (1:00 to 2:00)					
S-2	(D1S2W1)	(D1S2W2)	(D1S2W3)	(D1S2W4)	(D1S2W5)	(D1S2W6)

14:15 to 15:15	**Organization: Kinnaird College For Women, Lahore**
	
	Presenter:
	  i- Prof. Dr. Saleha Naghmi
	  ii- Dr. Naila Alam
	Topic: "Tidy verse (Working the Power of Data) "
	Chair: Dr. Ayesha Nazuk(NUST)
		Organization: Pakistan Bureau of Statistics (PBS)
		
		Presenter: Dr. Baharawar Jan
		
		Topic: "Quantile-Wise Cost-of-Living Impact"
		 Chair: UNFPA
			Organization: World Bank
			
			Presenter. World Bank
			
			Topic: "DASHBOARD/ leveraging the power of the data through story telling"
			Chair: Mr. Attiq ur Rehman(PBS)
				Organization: i-Quaid-e-Azam University ii-PBS, DP Center
				
				Presenter: i- Dr.Zahid Asghar
				  ii-Miss Sobia Munawar
				
				Topic: i "Building Trust in the Age of AI"
				  ii- DSSI
				 Chair: Dr. Khalid Farooq (PBS)
					Organization: Food & Agriculture Organization (FAO)
					Presenter: Rep FAO
					
					Topic: "Food and Agriculture"
					Chair: Dr. Amjad Javed Sandhu (PBS)
						Organization: Crop Reporting Survey, Punjab (CRS)
						
						Presenter: Dr. Abdul Qayyum, DG. (CRS)
						Topic: "Introduction, crop reporting services Punjab. Methodology of crop area ,estimation, statistical method remote sensing. Methodology of crop yield estimation. Imported surveys"
						Chair: Dr. Naveed, JACC, PBS

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Day-I (21 October, 2024) Workshop Details (18 Workshops x 1 Hour Each)

Time	W-1	W-2	W-3	W-4	W-5	W-6
S-3	(D1S3W1)	(D1S3W2)	(D1S3W3)	(D1S3W4)	(D1S3W5)	(D1S3W6)

15:15 to 16:15	Organization: Pakistan Bureau of Statistics (PBS)
	
	Presenter:
	  i-Dr.Amjad Javed Sindhu,
	  ii-Dr.Sayad Waseem Abbas
	
	Topic:" Rural Statistics"
	Chair: Dr. Salehi Naghmi
		RESERVED	Organization: Pakistan Bureau of Statistics (PBS)
			
			Presenter: Mr. Rizwan Bashir
			
			Topic: "Crime Statistics"
			Chair: Dr. Sundas (NUST)
				Organization: NEECA
				
				Presenter: Mr. Feroz (Dir. Industry)
				
				Topic: "National Energy conservation awareness campaign "Key initiative and outcomes"
				Chair: Mr. Rafique Hussain Talpur (PBS)
					Organization: National University of Science & Technology (NUST)
					Presenter:i. Dr. Ayesha Nazuk
					  ii. Dr.Tanweer ul Islam Topic: i. "E/Digital Governance methods that can be used by NGOs/INGOs to track their online disclosure practices".
					  ii. Data Visualization with R
					Chair:Dr. Zahid Asghar(QAU)
						Organization: National University of Modern Languages, ICT (NUML)
						Presenter: i.Miss Mehrun-Nisa
						  ii. Miss Amna Sajid
						Topic: i. "Social Impact of Machine Learning & Applications " ii-"Healthcare and Generative AI: Transforming the Future"
						Chair: Shazia Begum, (PBS)

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Day-II (22 October, 2024) Workshop Details (24 Workshops x 1 Hour Each)

Time	W-1	W-2	W-3	W-4	W-5	W-6
S-1	(D2S1W1)	(D2S1W2)	(D2S1W3)	(D2S1W4)	(D2S1W5)	(D2S1W6)
1000 to 1100	**Organization:** United Nations Development Program (UNDP) **Presenter:** TBD **Topic:** "Development Indicators" **Chair:** Dr. Mehrosh Khalid, (IIUI)	**Organization:** Pakistan Bureau of Statistics (PBS) **Presenter:** i. Mr. Ihsan ul Haq ii. Shazia Begum **Topic:** i. "Unveiling Health Financing in Pakistan: Insights from National Health Accounts" ii- "Growth & Development" **Chair:** Dr Tanveer ul Islam(NUST)	**Organization:** Competition Commission of Pakistan **Presenter:**Ms. Kishwar Khan **Topic:** "Essential Data for Research on Competition Issues:Insights under Pakistan Competition Act 2010 **Chair:** Syed Abul Qadir (PBS)	**Organization:** Bureau of Statistics, P&D Board, Punjab (BOS) **Presenter:** i. Ch.Sajid Rasool ii. Issac Shahzad **Topic:** i. Data driven decision making through integration and visualization ii-Complex Sample Designs and its Features in Survey Estimates **Chair:**Malik Rizwan Asghar (Metrological Department)	**Organization:** National Commission on the Status of Women (NCSW) **Presenter:** Mr. Aftab Ahmad (NGDP) and Ms Shabana Nawaz **Topic:** " National Gender Data Portal" **Chair:**Dr. Maryam Mahsal Khan(CECOS)	**Organization:**Pakistan Bureau of Statisitcs (PBS) **Presenter:** Ms. Sobia Munawar, Mr. Arslan Basheer **Topic:** Data Visualization of PBS **Chair:** :Dr. Sohail Khan (Sino-Pak Centre)
S-2	(D2S2W1)	(D2S2W2)	(D2S2W3)	(D2S2W4)		(D2S2W6)
1130 to 1230	**Organization:** (International Islamic University, Islamabad (Department of Bioinformatics) **Presenter:** Dr. Mehrosh Khalid **Topic:** Empowering Decision-Making Through Data Visualization and Analysis **Chair:** Mr. Munwar Ali Ghanghro (PBS)	**Organization:**Bureau of Statistics, P&D Board, Punjab (BOS) **Presenter** i-Miss Saira Abid ii-Mr.Muhammad Farooq, **Topic:** i.1n Equity Profile Reliving Patterns of Inequality ii.Punjab Info User Interface Workshop **Chair:**Mr. Ihsan ul Haq (PBS)	**Organization:** Pakistan Bureau of statistics (PBS) **Presenter:**Ms. Rabia Awan, DDG **Topic:** "Social Development Index" **Chair:** Miss Kishwar Khan (CCP)	**Organization:** Metrological department **Presenter:** Malik Rizwan Asghar **Topic:** "Data Acquisition Visualization and Forecasting Process" **Chair:**Ch.Sajid Rasool(BOS)	**Organization:**CECOS University of IT and Emerging Sciences) **Presenter:**Dr. Maryam Mahsal Khan **Topic:** i. "Using Predictive Technologies: The Role of Monsoon Forecasting in Disaster Risk Management" ii. Localized Mobile Health Application: Fully Automated AI Diagnostic for Sustainable Pakistan **Chair:**Mr. Yasir, DP, PBS	**Organization:**Sino-Pak center for AI **Presenter:**Dr. Sohail Khan **Topic:** "High Performance Computing for Data Science Application" **Chair:** Ms. Sobia Munawar

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Day-II (22 October, 2024) Workshop Details (24 Workshops x 1 Hour Each)

S-3	(D2S3W1)	(D2S3W2)	(D2S3W3)	(D2S3W4)	(D2S3W5)	(D2S3W6)
1400 to 1500	**Organization: UET TEXILA** **Presenter:** Dr. Abid Rauf **Topic:** "A Comprehensive Overview of Statistical and Machine learning approches in Recommender Systems" **Chair:** Muhammad Ibrahim (RDS)	**Organization: National University of Sciences and Technology (NUST)** **Presenter:** Dr. Verda Salman **Topic:** "Estimating Food Security Indicators with Household Integrated Economic Survey" **Chair:** Ms Rizwana Siddique, (PBS)	**Organization: Population Welfare Department,Punjab** **Presenter:** Yasir Rahim **Topic:** Networking Coordination and Collaboration Sharing of the Data, Data Driven Decidsion Making. **Chair:** Prof. Dr. Jahangir Khan	**Organization:Precision Health Consultant Global (PHC)** **Presenter:** i- Dr. Ali Turab ii- Zille Huma, **Topic:** "Data for Life and Equity" **Chair:** Dr. Muhammad Habib (Arid Uni.)	**Organization:PITB (Punjab Information Technology Board) , OSSP &BOS** **Presenter:** i. OSSP Presenters ii. Mr. Rohail Amjad Mughal(BOS) **Topic:** i."Online Statistical system in Punjab-Integration Of Offficial Statistics On Rural Time Basis" ii-Survey Data Processing Using Computer Assisted Personal Interviewing (CAPI) **Chair:** Dr. Muhammad Aslam, (BZU)	**Organization: PMAS Arid Agriculture University, Rawalpindi** **Presenter:** Dr Arshad Mahmood Malik **Topic:** Hydroponics Technological Interventions in Agriculture Farming, Challenges and Opportunities **Chair:** Mr. Jhangir (SECP)

S-4	(D2S4W1)	(D2S4W2)	(D2S4W3)	(D2S4W4)	(D2S4W5)	(D2S4W6)
1530 to 1630	**Organization:Research and Development Solution, Isb** **Presenter:** i.Muhammad Ibrahim, ii-Syed Saddam Haider iii-Aisha Irum **Topic:** "Utilizing Proxy-Based Methodlogies to Enhance HDI Estimates at the District Level" **Chair:** Muhammad Suhaib (PBS)	**Organization:Rawalpindi Women University** **Presenter:** Dr. Amber Sarwar **Topic:** Impact of Climate Change on Capsicum Disease Detection **Chair:** Munawar Ali Ghangro, (PBS)	**Organization:Sarhad University of Science and IT** **Presenter:** Prof. Jahangir Khan **Topic:** "Remote Sensing Spatial Observations using MODIS Data Products for Drought and Land Surface Temperature over the Crop Land of Punjab - Pakistan" **Chair** Dr Arshad Mahmood Malik(Arid Uni.)	**Organization: PMAS Arid Agriculture University, Rwp** **Presenter:** Dr. Muhammad Habib **Topic:** "Exploring the Performance of various Machine Learning Algorithms on Diverse Datasets for Predictive Analysis" **Chair:** Rafique Hussain Talpur(PBS)	**Organization: Bahauddin Zakariya University (BZU)** **Presenter:** Dr. M Aslam **Topic:** "Data Wrangling: The Foundation of Data Driven Decision Making: Transforming the Future." **Chair:** Yasir Rahim (PWD) Punjab	**Organization: Security and Exchange Commission of Pakistan (SECP)** **Presenter:** Mr.Jhangir **Topic:** "Digital Journey at SECP **Chair:** Dr. Ali Turab(PHC)

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Registration Information

Participants are Invited to join three days of immersive exploration into the latest in data science and innovation, taking place from October 21st to 22nd at the Pak China Friendship Centre in Islamabad. Please register online through following link. https://www.pbs.gov.pk/pbs-datafest-2024

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