Building a Sustainable Public Private Data Partnership – Bridging the Gaps, Addressing the Challenges

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About Telkomsel

Telkomsel as a leading digital telecommunications company has always been committed to opening more opportunities and possibilities by delivering pioneer solutions in digital connectivity, platforms, and services. For more than 27 years, Telkomsel prioritized the use of inclusive technology advancement in every aspect of Indonesian society’s life.

**Network Infrastructure**
- Number of BTS: +255,000 unit
  + 204,900 3G/4G/5G BTS
  + 2,000 4G BTS USO
- Coverage: 96% Indonesia population

**Customer Base**
- Total: +169.7 millions subs.
  Internet Users: +119 millions subs.
  Reseller Outlet: +300K outlets

**Data Size**
- Number of Data feed: +125
  Payload processed: +22 Peta Bytes/day
  Internet transaction: +995 Mio records/day
  Number of Cell ID: +900 thousands

**Product & Services**

**Digital Connectivity**
- Telkomsel Prabayar
- Telkomsel Halo
- Telkomsel Orbit
- The Real 4G
- Hyper 5G
- Telkomsel Music
- Telkomsel Video
- Telkomsel Games

**Digital Platform & Digital Services**
- MyTelkomsel
- Telkomsel Enterprise
- Telkomsel DigiAds
- IoT
- PayLater
- Link Aja!
- Max Stream
- DG
- klopi
- TAD
- by.U
- tSurveyid
- INDICO
- Kuncie
- MajanoJo
- fita
Overview of Telco Big Data and Use Cases

**INTERNAL DATA DRIVEN ORGANIZATION**
- Content recommendations
- Device loans/subsidies
- Cross-sell/Up-sell

**EXTERNAL MONETIZATION**
- Micro-finance
- Digital Advertising
- B2B Products and Services

**CUSTOMER 360 PROFILE**

**ALWAYS ON DATA FUSION**
- Network & location data
- Internet usage/browsing
- Customer demographic
- Owned app usage
- Transaction history
- Recharge
- Value added service
- Reference data

**ANALYTICS/DATA SCIENCE ENVIRONMENT**
- Content recommendations
- Device loans/subsidies
- Cross-sell/Up-sell
Tourism Statistics for BPS (2018–current)

BPS (NSO) has a need to improve the conventional ways of collecting data for official statistics with a more effective and efficient methodology using telco big data to improve data accuracy, timeliness, observation coverage area, and in addition also to increase the productivity of BPS regional team.


With MPD capability, we can also monitor traffic at the Asian Games event held in 2018. The data points that we monitor were the number of visitors at each venue, origin of visitors (domestic and overseas), destination after visiting the event and frequency of visits.

Palu Earthquake 2018 Displacement Tracking (2019)

Gaining an understanding of post-disaster displacement linked to the earthquakes and tsunami that impacted Kota Palu and surrounding areas (Sigi & Donggala) in the province of Central Sulawesi, Indonesia, on Friday, September 28, 2018.
Data ecosystem offer tremendous potential value for society and business. However, tapping it can be a challenge for companies. Data ecosystem have the potential to boost digital competitiveness of a region/country by tackling largest societal challenges including financial inclusion, inequality, global health and economic resilience.\(^1\)

Progress have been made; however, challenges remain:\(^2\)

**Trust & Privacy**
- Risk of data being mishandled, misused, mis-shared, and related financial and reputational ramification

**Technological & Procedural Costs**
- Costs associated with technological development, operational, and procedural hurdles

**Competitive Concern**
- Risk of exposing competitively sensitive information especially in a highly competitive market

**Loss of Financial Opportunities**
- Risk of potential financial opportunities to be overlooked

To realize a sustainable value creation from data ecosystems, all challenges needs to be addressed.

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1) World Economic Forum, 2022
2) BCG, 2020
Establishing a Sustainable and Trusted Data Sharing Framework

To ensure sustainability, it is important to create an environment in which everyone wins, and the objectives of all stakeholders are aligned.

- **Clear legal & regulatory explanations and tools** that build confidence in, and reduce resistance to, data sharing and help companies navigate its complexities.
- **Implementation of measures and mechanism** designed to securely protect and safeguard information and data to enable a secure environment for data sharing.
- **Build relevant skills and capabilities** for harnessing the power of data.
- **Standardization** to ensure data sharing interoperability.
- **Creating a governance systems** that make data sharing attractive by providing participants with incentives (both monetary and non-monetary) while protecting their interests (example: appropriate competition policy).
- **Enabling trust** among data contributors and the public.
Conclusion

Data sharing done right will increase region's competitive advantage, enable more innovative process, products, and services.
Thank You