Technology Readiness to Support e-Commerce Development: Case Indonesia

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AGENDA

- e-Commerce: the Business Process
- e-Commerce: the Ecosystem
- Indonesia Digital Snapshot
- Indonesia ICT: Challenges and Opportunities
- e-Commerce Roadmap
- Infrastructure Development
- CONCLUSION
e-Commerce: the Business Process

CUSTOMERS → E-COMMERCE → SELECT PRODUCTS

WAREHOUSE → SHIPPING → BANK PAYMENT → E-COMMERCE
e-Commerce: the Ecosystem
Indonesia ICT Potential and Challenges

Emerging markets face two broad issues in providing affordable internet access: building network capacity and expanding network coverage (WEF, 2015).

Challenges: Digital Divide

“Profil Pengguna Internet Indonesia 2014”, APJII & Puskakom UI, 2015
Challenges: Financial Service Divide

Global

51% of the world’s adult population held an account in 2014 compared to 2017.

Persentase Dewasa Punya Rekening di Formal Sektor Keuangan

USA 94%, UK 99%, China 79%, India 53%.

Indonesia 36%, Thailand 78%, Malaysia 81%.

Argentina 50%, Brazil 68%, Nigeria 44%, Tanzania 40%.

Dewasa Indonesia >15th: 177.7jt

2011 = 20%

Source: Worldbank, Global Financial Inclusion Index, 2014
Opportunities: Digital Natives Generation

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<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>56-65 tahun</td>
<td>0.2%</td>
</tr>
<tr>
<td>46-55 tahun</td>
<td>2.4%</td>
</tr>
<tr>
<td>36-45 tahun</td>
<td>14.6%</td>
</tr>
<tr>
<td>26-35 tahun</td>
<td>33.8%</td>
</tr>
<tr>
<td>18-25 tahun</td>
<td>49.0%</td>
</tr>
</tbody>
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“Profil Pengguna Internet Indonesia 2014”, APJII & Puskakom UI, 2015
Opportunities: Digital Engagement

Source: We Are Social’s Analysis of Facebook Reported Data

Source: Balitbang SDM Kementerian Komunikasi dan Informatika
# Opportunities: Interoperability of Mobile Money and Mobile Payment

<table>
<thead>
<tr>
<th>Roles</th>
<th>Mandiri</th>
<th>Telkom Indonesia</th>
<th>Telkomsel</th>
<th>Indosat</th>
</tr>
</thead>
</table>
| **Platform Provided** | E-Money Platform | • USSD (Existing) Platform  
• USSD Access *141*141# | • USSD (Existing) Platform  
• USSD Access *141*141# | • USSD (Existing) Platform  
• USSD Access *141*141# |
| **E-Wallet** | E-CASH | TCASH (Phase-2)² | XL Tunai (Phase-2) | Dompetku (Phase-2) |
| **Link** | Link to Biller | Optional link to merchants³ | Optional link to merchants | Optional link to merchants |
| **Promotions** | Provide promotions⁴ | Provide Promotions | Provide Promotions | Provide Promotions |
| **Sales Channel Provided** | Branches, ATM, EDC, & merchants for Cash-in and Out | Tsel Channel Distribution⁵ | XL Channel Distribution | I-sat Channel Distribution |
| **Man Power** | Dedicated person each 1 in HQ and Region | Dedicated person each 1 in HQ and Region⁶ | Dedicated person each 1 in HQ and Region | Dedicated person each 1 in HQ and Region |
| **Trx Fee Share** | 25% | 25% (Tsel get 12.5%) | 25% | 25% |

### Notes
1. Tsel USSD access Rp250, others operator Free. MT Charging all operators FREE
2. Interoperability Rupi to all Telco e-money will be in Phase-2 (not decided yet when)
3. Link to Telco Merchants in next phase (not decided yet)
4. Promotions will decided together form and design, using existing RUPI’s budget
5. Utilization of Telco Channel distribution will applied in the next stage. For time being only use NEW channel distribution created by RUPI’s team
6. Tsel already provided 1 dedicated team in Region (Bandung), effective in W3 April 2015
e-Commerce Roadmap
Strategic Related Sectors
e-Commerce Roadmap
Strategic Related Sectors

• Collaboration and Synergy of 8 Ministries:
  – Coordinating Ministry of Economy
  – Ministry of Finance
  – Ministry of Trade
  – Ministry of Industry
  – Investment Coordinating Board (BPKM)
  – Ministry of Law and Human Rights
  – Ministry of Cooperation and SMEs
  – Creative Economy Board (Bekraf)

• Projected USD 130 Billion Transaction in 2020
The current digital entrepreneur sector in Indonesia is rapidly expanding, yet still dominated by the early stages of Seed-Size Players.

Indonesia digital startups ecosystem now are still heavy in “great ideas, seed-size players, workers and consumers”. We aim to have more Indonesia digital technopreneurs, have international workers working for Indonesia digital technopreneurs and have access to global markets.
ICT INFRASTRUCTURE DEVELOPMENT: INDONESIA BROADBAND PLAN

2013

Infrastructure
Fixed broadband:
15% household (1 Mbps), 30% building (100 Mbps), and 5% population;
Mobile broadband:
12% population (512 kbps)

2019

Urban Infrastructure
Fixed broadband:
71% household (20 Mbps), 100% building (1 Gbps), and 30% population;
Mobile broadband:
100% population (1 Mbps)

Rural Infrastructure
Fixed broadband:
49% household (10 Mbps), 6% population;
Mobile broadband:
52% population (1 Mbps)

Utilization / Adoption:
Monthly service price is less than 5% monthly revenue

User: Indonesian Society
Potential captive market: 4.5 million civil servants, 50 million student, 3 million teachers, 60 million household

Source: 2014 Indonesia Broadband Plan
Cellular Network Deployment in Indonesia

Source: Consolidated data from Annual Report of Operators and GIS of mobile operators site year 2014, Ministry of Communications and IT, Indonesia
FO NETWORK DEPLOYMENT IN INDONESIA

Legend:
- Bakrie Telecom (3776.36 Km)
- H3I (5076.86 Km)
- Indosat (25969.84 Km)
- Supra Primatama Nusantara (8924.13 Km)
- Telekomunikasi Indonesia Internasional (26256.73 Km)
- Telkom (53155.03 Km)
- XL Axiata (38841.49 Km)
- Others (35962.57 Km)

Source: Consolidated data from Annual Report of Operators and GIS year 2014, Ministry of Communications and IT, Indonesia
Mobile Access #1

- 36% out of 275 thousand BTS are 3G/4G Node B
- Telecom subscriber is 337,182 thousand number (estimated 200 million individual subscriber using cellular),
- 70% out of 337,182 Thousand subscriber accessing internet data, is a very potential resource of a digital services in Indonesia

Source: LKO and SIMF data
Mobile Access #2

Mobile Stats

- 80.1 M Active Mobile Broadband Subscription
- 32% Mobile Broadband Subscription of Total Population
- 52M Active Social Media Users Accessing from Mobile Device
- 21% Penetration of Mobile Social from Total Population

Source: Google “Our Mobile Planet”; WeAreSocial; eMarketer “Indonesia Online”

Mobile

- 95,867,646 Smartphone Users
- Smartphone Penetration as % of Total Mobile Subscription: 34%
- Smartphone User Searching for Local Information: 94%
- Smartphone Users Researching Product/Service from Their Phone: 95%
- Smartphone Users Who Have Purchased from Their Phone: 57%
Telkomsel is largest operator providing digital financial services platform in Indonesia. This platform will integrated with more than 100,000 agent and SME as telkomsel’s partner.
PALAPA RING: NATIONAL FIBER OPTIC BACKBONE AND BACKHAUL

Source: Ministry of Communications and IT, Indonesia
Palapa Ring Updates
Latest Development

• On-going National Connectivity Program: Palapa Ring, USO-initiated actions
• On-going e-Commerce Roadmap Development
• Access to Capital (KUR) – Economic Policy Package 11
• Reduce Logistic Cost – Economic Policy Package 9
• Financial Inclusion – on progress (Economic Policy Package #n)
What We Are Lacking

• Even Distribution of Broadband Internet Infrastructure
• National Payment Gateway
• Hybrid Mode of Financial Inclusion: Banking – Telco – Post
• Indonesia Broadband Plan is very good milestone. BUT we need to monitor and evaluate it on regular basis and then take corrective actions when necessary
Conclusion: What We need

- Consistent Policy on, and Implementation of, e-Commerce Roadmap
- Even Distribution of ICT Infrastructure Development
- Invest on Human Resources Development
- Digital Financial Inclusion Policy
  Hybrid Digital Financial Services: Mobile Operators and Banking Sectors Synergy
- Improvement on National Logistic System (Sislognas)