Cash-In Cash-Out Cross-Country Analysis: INDONESIA

MSC
MicroSave Consulting
December 2020
DISCLAIMER

This work was funded in whole or in part by CGAP. Unlike CGAP's official publications, it has not been peer reviewed or edited by CGAP. Any conclusions or viewpoints expressed are those of the authors, and they may or may not reflect the views of CGAP staff.

This slide deck serves as background research for the CGAP Focus Note ‘Agent Network Journeys Toward the Last Mile: A Cross-Country Perspective’.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Expanded form</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANA</td>
<td>Agent Network Accelerator</td>
<td>Periodic surveys done by Helix Institute of Digital Finance (MSC) to assess the health of digital financial services agent networks across 11 countries</td>
</tr>
<tr>
<td>AFTECH</td>
<td>Asociasion Fintech Indonesia</td>
<td>Fintech association of Indonesia</td>
</tr>
<tr>
<td>ANM</td>
<td>Agent Network Manager</td>
<td>Third party entities that recruit, train and manage digital financial services agents on behalf of a service provider</td>
</tr>
<tr>
<td>BCG</td>
<td>Boston Consulting Group</td>
<td></td>
</tr>
<tr>
<td>BI</td>
<td>Bank Indonesia</td>
<td>The central bank of Indonesia - responsible for macro-prudential regulations</td>
</tr>
<tr>
<td>BI-FAST</td>
<td>Bank Indonesia - FAST</td>
<td>An interoperable mobile payment system launched by Bank Indonesia</td>
</tr>
<tr>
<td>BPNT</td>
<td>Bantuan Pangan Non Tunai</td>
<td>In-kind food subsidy program of Government of Indonesia</td>
</tr>
<tr>
<td>BSA</td>
<td>Basic Savings Account</td>
<td>Savings account targeted at low income segment - can be opened through simplified customer due diligence (CDD) procedures</td>
</tr>
<tr>
<td>CAGR</td>
<td>Compounded Annual Growth Rate</td>
<td></td>
</tr>
<tr>
<td>CICO</td>
<td>Cash in Cash out</td>
<td></td>
</tr>
<tr>
<td>DFS</td>
<td>Digital Financial Services</td>
<td></td>
</tr>
<tr>
<td>EDC</td>
<td>Electronic Data Capture</td>
<td>Equivalent to Point of Sale Device (PoS) in other countries</td>
</tr>
<tr>
<td>FII</td>
<td>Financial Inclusion Insights</td>
<td>Financial services survey done by Intermedia across multiple countries</td>
</tr>
<tr>
<td>G2P</td>
<td>Government to Person</td>
<td>Government payments directed at citizens</td>
</tr>
<tr>
<td>GoI</td>
<td>Government of Indonesia</td>
<td></td>
</tr>
<tr>
<td>IDR</td>
<td>Indonesian Rupiah</td>
<td>Indonesian currency</td>
</tr>
<tr>
<td>KKS</td>
<td>Kartu Keluarga Sejahtera</td>
<td>Family card - Household identification document</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Expanded form</td>
<td>Remarks</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>KUR</td>
<td>Kredit Usaha Rakyat</td>
<td>Subsidised MSME loans program of Government of Indonesia</td>
</tr>
<tr>
<td>KYC</td>
<td>Know Your Customer</td>
<td></td>
</tr>
<tr>
<td>Laku Pandai</td>
<td>Branchless banking services</td>
<td>Equivilant to agent banking services - can be provided only by commercial banks</td>
</tr>
<tr>
<td>LKD</td>
<td>Layanan Keungan Digital</td>
<td>e-money services - can be provided by both banks and non-banks</td>
</tr>
<tr>
<td>MSME</td>
<td>Micro, Small, and Medium Enterprises</td>
<td></td>
</tr>
<tr>
<td>NTB</td>
<td>Nusa Tengara Barat</td>
<td>Province in the east of Indonesia</td>
</tr>
<tr>
<td>NTT</td>
<td>Nusa Tengara Timur</td>
<td>Province in the east of Indonesia</td>
</tr>
<tr>
<td>OJK</td>
<td>Otoritas Jasa Keuangan</td>
<td>Financial Services Authority - Regulates and supervises financial service providers in banking, insurance and capital markets</td>
</tr>
<tr>
<td>OTC</td>
<td>Over the counter</td>
<td>DFS transactions done using agents account</td>
</tr>
<tr>
<td>PBI</td>
<td>Peraturan BI</td>
<td>Bank Indonesia regulation</td>
</tr>
<tr>
<td>PKH</td>
<td>Program Keluarga Harapan</td>
<td>Conditional cash transfer program of Government of Indonesia targetted at poor HHs</td>
</tr>
<tr>
<td>POJK</td>
<td>Peraturan OJK</td>
<td>OJK’s regulation</td>
</tr>
<tr>
<td>PPOB</td>
<td>Payment point online bank</td>
<td>Generic term used for digital bill payment &amp; top-up platforms</td>
</tr>
<tr>
<td>QRIS</td>
<td>Quick Response Code Indonesia Standard</td>
<td></td>
</tr>
<tr>
<td>UMI</td>
<td>Ultra Micro</td>
<td>Subsidised micro-loans programs of Ministry of Finance.</td>
</tr>
<tr>
<td>USD</td>
<td>United States Dollar</td>
<td></td>
</tr>
<tr>
<td>Warongs</td>
<td>Small mom &amp; pop shops</td>
<td></td>
</tr>
</tbody>
</table>
**Executive Summary (1/2)**

**Learnings from Indonesia experience for other countries**

<table>
<thead>
<tr>
<th>Key aspect</th>
<th>Lessons</th>
</tr>
</thead>
</table>
| Regulatory restrictions on non-bank distribution channels for DFS leads to lack of service aggregation at agent point | • Restricting CICO services at non-bank DFS distribution channel prevents service aggregation at an agent point, limits customer choice and discourages private sector to build digital rails in remote areas  
• It also prevents impactful strategic partnerships between providers and leads to redundancies in rural DFS expansion |
| A public infrastructure on digital identity application coupled with a low-cost front end technology would be critical for rural DFS expansion | • Providers will need to drive down their cost of customer and agent acquisition in order to sustainably serve rural customers  
• A low cost public infrastructure on digital identity is critical for encouraging private sector innovation for rural DFS  
• Most banks in Indonesia are shifting from their legacy systems (EDC-card based) to smartphone enabled delivery channel to ensure sustainable rural DFS delivery |
| G2P serves as an anchor payment for rural DFS expansion. However, it requires an effective incentive model to ensure an enhanced beneficiary value proposition for adoption of DFS | • G2P has served as an anchor payment that has provided a bank account access to millions of unbanked and underserved Indonesians  
• However, without a clear revenue model, private sector innovation is fairly limited and providers tend to do minimum required  
• Governments need to design an effective incentive model for G2P distribution to encourage service providers to offer a better value proposition to beneficiaries and thereby enhancing their account usage |
### Key recommendations

#### Providers

- Invest in sophisticated agent network management systems for effective monitoring and pro-active agent support services
- Provide or facilitate loans to the agents for investment in working capital. Enable digital channels for credit assessments and delivery of such loans
- Customize product offerings, product communication and delivery channel for specific segments including women and youth
- Tap into alternative distribution channels for greater reach and stability in service delivery

#### Regulator and policy makers

- Leverage the regulatory sandbox to test the feasibility and risks of new business models
- [Harmonize regulations](#) for DFS delivery through bank and non-bank agent channel to enable healthy competition
- Adopt a [risk based agent supervision](#) model to optimize DFS market development
- Build a [public infrastructure for digital identity](#) application to drive down acquisition cost and service delivery cost for DFS providers
- Expand G2P delivery to private sector and design an effective incentive model that enhances [beneficiary choice](#), and, consequently drives usage
- Target KUR and UMI loans to DFS agents, especially the ones serving in remote rural areas
DFS uptake and usage
Indonesia’s population density and physical infrastructure varies significantly across major island groups
Geographical complexity makes the status of financial inclusion vary significantly across different island groups.

**BSA³ Account Penetration³**

Outside Java and Sumatera, the penetration of basic savings account (BSA) is significantly lower.

**Banking Agents Penetration³** [penetration quartiles]

In some island groups, BSA account coverage is proportionately higher than banking agent access.

---

1. Data sourced from OJK’s presentation at BCG-MSC CICO Economics study launch event in Nov, 2019
By the numbers, financial services coverage physical infrastructure are considerably lower in the island groups outside of Java and Sumatera

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Java</th>
<th>Sumatera</th>
<th>Kalimantan</th>
<th>Sulawesi</th>
<th>Bali, NTT, NTB</th>
<th>Maluku</th>
<th>Papua</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of country’s population¹</td>
<td>56%</td>
<td>21.9%</td>
<td>6.08%</td>
<td>7.3%</td>
<td>5.6%</td>
<td>1.5%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Electricity generation / capita (GWh)²</td>
<td>0.96</td>
<td>0.68</td>
<td>0.32</td>
<td>0.53</td>
<td>0.04</td>
<td>0.27</td>
<td>0.34</td>
</tr>
<tr>
<td>% area with weak mobile signal³</td>
<td>19%</td>
<td>27%</td>
<td>59%</td>
<td>34%</td>
<td>36%</td>
<td>59%</td>
<td>72%</td>
</tr>
<tr>
<td>Banking agents⁵ #</td>
<td>742,000</td>
<td>230,000</td>
<td>46,000</td>
<td>64,000</td>
<td>47,000</td>
<td>16,000</td>
<td></td>
</tr>
<tr>
<td>BSA⁴ accounts⁵ #</td>
<td>17.5 m</td>
<td>4.4 m</td>
<td>0.68 m</td>
<td>1.3 m</td>
<td>1.4 m</td>
<td>0.3 m</td>
<td></td>
</tr>
<tr>
<td>BSA average balance (USD)⁵</td>
<td>$4.00</td>
<td>$7.90</td>
<td>$14.40</td>
<td>$13.40</td>
<td>$7.90</td>
<td>$33.10</td>
<td></td>
</tr>
</tbody>
</table>

Lack of electricity and weak mobile signal impacts delivery of digital financial services, especially for islands in Eastern Indonesia

Papua, Kalimantan and Sulawesi - higher BSA balances suggests increased account usage. This might indicate the lack access to formal financial services in these regions compared to others

---

1. Population data compiled from BPS. *Statistical Yearbook of Indonesia 2019*
2. Electricity data generation data compiled from BPS data - *Status of Electricity 2013-2018*
3. Percentage of area with weak signal complied from BPS. *Statistik Telekomunikasi 2018*
4. Basic Savings Account – The lowest tier bank account targeted at low income excluded segments. Requires simplified CDD protocols. The BSA has reduced transaction limits compared to regular bank accounts
5. OJK Website access on 6th March, 2019
6. Values have been converted to dollars with 1USD = IDR 14200 as exchange rate
Three categories of financial services agents operate in Indonesia

**Laku Pandai**
- Agent banking services of banks aimed at financial inclusion
- 31 banks (2019) that have been given Laku Pandai license
- Regulated (POJK No. 19/POJK.03/2014)

**LKD**
- E-money services that can be offered by both banks and non-banks
- 42 e-money licenses has been issued which includes 12 banks and 30 non banks
- Regulated (PBI No. 11/12/PBI/2009)

**Fintech agents**
- Digital payment solutions offered by fintech players via agent networks
- No defined regulatory “framework

For the purpose of analysis, non-bank LKD agents and Fintech agents have been commonly referred to as non-bank agents while Laku Pandai agents have been referred as bank agents.

1. OJK Presentation (Nov, 2019) – Launch event of CICO Economics Study (BCG/MSC)
The agent landscape in Indonesia is characterised by three distinct phases

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LKD Agents</strong></td>
<td><strong>Laku Pandai Agents</strong></td>
<td><strong>Fintech Agents</strong></td>
</tr>
<tr>
<td>• E-Money regulations released by Bank Indonesia</td>
<td>• Laku Pandai regulations released by OJK</td>
<td>• Estimated 6 million agents (individuals and kiosk-based) are onboarded by Fintech companies</td>
</tr>
<tr>
<td>• Major MNOs launch services; Telekomsel, XL, Indosat</td>
<td>• Major banks launch their agent banking services</td>
<td>• Gojek and Grab, ride-hailing start-ups aggressive scale up</td>
</tr>
<tr>
<td>• Major banks launch services; Mandiri, BNI, BRI and BCA -</td>
<td>• 4 state-owned banks mandated for G2P payments</td>
<td>• Fintech agents of KUDO, Bukalapak and RUMA expand their presence in rural areas</td>
</tr>
<tr>
<td>• The growth of CICO agents was limited due to regulatory restrictions on recruiting non-registered agents</td>
<td>• BRI, Mandiri, BNI and BTPN; lead rapid growth in agents (including LKD agents)</td>
<td>• Major PPOB players such Fastpay, True Money, Bukopin expand their agent base</td>
</tr>
<tr>
<td></td>
<td>• Banking agent numbers start to plateau</td>
<td></td>
</tr>
</tbody>
</table>

1. OJK Presentation (Nov, 2019) – Launch event of CICO Economics Study (BCG/MSC)
The rise of Fintechs has led to new business models and a growing number of agents that interact with customers – these have the potential to support CICO

<table>
<thead>
<tr>
<th>Type of Providers</th>
<th>New Agent-Based Business Model</th>
<th>Estimated touch points</th>
</tr>
</thead>
</table>
| **Super platforms**                    | - Leading ride hailing providers  
- e-Wallet services linked to their platform  
- 20 services - food delivery, bill payments, top-ups etc.                                                                                                                                                                                                                                           | Combined 2 million drivers<sup>1</sup>                                                                                                     |
| Gojek & Grab                           |                                                                                                                                                                                                                                                                                                                                                             |                                                                                        |
| **Payment Point Online Bank (PPOB) Services** | - Approx. 121 PPOB in market  
- Agent enabled OTC for bill payment and airtime  
- Companies operate as agent network managers  
- Key players; Linkaja, Fastpay, True Money, Bukopin.                                                                                                                                                                                                                                          | Leading players agent touch points;  
- Fast Pay ~ 140,000<sup>1</sup> agents  
- Bukopin ~ 30,000 agents                                                                                                         |
| Fastpay, Bukopin                        |                                                                                                                                                                                                                                                                                                                                                             |                                                                                        |
| **Financial Service Logistics**        | - Mobile agents who support financial institutions and e-commerce companies to acquire customers, provide doorstep KYC, payments and other logistical services                                                                                                                                                                                                 | Finfleet ~ 500 mobile financial agents<sup>1</sup>                                                                                        |
| Finfleet                                |                                                                                                                                                                                                                                                                                                                                                             |                                                                                        |
| **Innovative Agent Business**           | - Use leaders in social groups (arisans) – facilitate group savings and purchases through a smartphone based app.                                                                                                                                                                                                                                     | 200,000 social group leaders with an average of 5-10 members group.                                                                          |
| Mapan (Gojek Subsidiary)               |                                                                                                                                                                                                                                                                                                                                                             |                                                                                        |

<sup>1</sup>Fintech Landscape in Indonesia 2019, AFTECH Presentation
In the last few years, agent numbers have grown rapidly.
However the number of economically sustainable agents is still low\(^1\), indicating that the agent business model and operating model needs to be addressed.

---

**Laku Pandai Agents - Estimated number of active and economically sustainable**

- **Total reported agents (as on Sep, 2019):** 1,116,700 (100%)
- **Estimated number of active agents (min. 1 txn in last 30 days):** 446,800 (~43%)
- **Exclusive agents (serving a single provider):** 428,900 (~41%)
- **Economically sustainable agents (min. number of txns to break-even):** 338,900 (~33%)

**Fintech – Physical Shop Agents - Estimated number of active and economically sustainable**

- **Agents having physical outlets (Excludes individuals):** 2,241,200 (100%)
- **Active agents (min. 1 txn in last 30 days):** 400,920 (18%)
- **Exclusive agents (serving a single provider):** 280,600 (12.5%)
- **Economically sustainable agents (min. number of txns to breakeven):** 221,700 (10%)

---

1. MSC analysis based on stakeholder interviews.
2. The total reported Fintech agent numbers have been taken from AFTECH presentation done during BCG-MSC CICO Economics launch event in Nov, 2019. The reported agent numbers are for 6 providers namely – RUMA, Kudo (Grab Kios), Paytren, True Money, Bukalapak, Linkaja (traditional telco channel only) and Fastpay.
3. The Fintech agent overlap has been assumed between the 6 Fintech providers and Laku Pandai agent.

The cases of non-exclusivity is significantly higher for Fintech agents.
Given the liquidity management concerns, many of financial services agents continue to operate in and around physical bank branches

85% of agents report being within 15 minute travel time from a bank branch¹

Distance to financial services access point for customers²

<table>
<thead>
<tr>
<th>Access Point</th>
<th>Less than 1 Km from home</th>
<th>1-5 Km from home</th>
<th>More than 5 Km from home</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking Agent</td>
<td>56.4%</td>
<td>29.8%</td>
<td>13.8%</td>
</tr>
<tr>
<td>Bank Branch</td>
<td>42.0%</td>
<td>36.7%</td>
<td>21.2%</td>
</tr>
<tr>
<td>ATM</td>
<td>50.6%</td>
<td>31.6%</td>
<td>17.7%</td>
</tr>
</tbody>
</table>

₅₀.₆% of consumers in FII survey (2018) did not know the location of any banking agent near their residence. This indicates a lack of awareness by consumers as well as issues with agent coverage.

For rural fintech agents - there has been evidence remote downloads of the agent app, however agent active rates are almost zero as Fintech have not established support and liquidity management outside of big cities and towns in the major islands.

1. ANA Indonesia, 2017 – Includes banking agents and True Money agents (as per ANA 2017 sample)
2. Financial Inclusion Insights (FII) Indonesia, 2018
Products, services, and technology
Bank agents focus on regular banking services, while non-banks are largely offering airtime top-up and bill payments solutions

<table>
<thead>
<tr>
<th>Transaction categories</th>
<th>Use cases offered</th>
<th>Laku Pandai agents (branchless banking)</th>
<th>LKD agents (e-money agents)</th>
<th>Fintech agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core banking services</td>
<td>Bank account opening</td>
<td><img src="green.png" alt="Green" /></td>
<td><img src="red.png" alt="Red" /></td>
<td><img src="red.png" alt="Red" /></td>
</tr>
<tr>
<td></td>
<td>Cash-in</td>
<td><img src="green.png" alt="Green" /></td>
<td><img src="green.png" alt="Green" /></td>
<td><img src="green.png" alt="Green" /></td>
</tr>
<tr>
<td></td>
<td>Cash-out</td>
<td><img src="green.png" alt="Green" /></td>
<td><img src="red.png" alt="Red" /></td>
<td><img src="red.png" alt="Red" /></td>
</tr>
<tr>
<td></td>
<td>Loans</td>
<td><img src="red.png" alt="Red" /></td>
<td><img src="red.png" alt="Red" /></td>
<td><img src="red.png" alt="Red" /></td>
</tr>
<tr>
<td>Digital payments</td>
<td>G2P payments</td>
<td><img src="green.png" alt="Green" /></td>
<td><img src="red.png" alt="Red" /></td>
<td><img src="red.png" alt="Red" /></td>
</tr>
<tr>
<td></td>
<td>OTC money transfer</td>
<td><img src="green.png" alt="Green" /></td>
<td><img src="green.png" alt="Green" /></td>
<td><img src="green.png" alt="Green" /></td>
</tr>
<tr>
<td></td>
<td>Money transfer (A2A)</td>
<td><img src="green.png" alt="Green" /></td>
<td>N/A</td>
<td>N/A*</td>
</tr>
<tr>
<td></td>
<td>Bill Payments &amp; Top-Ups</td>
<td><img src="green.png" alt="Green" /></td>
<td><img src="green.png" alt="Green" /></td>
<td><img src="green.png" alt="Green" /></td>
</tr>
<tr>
<td>Other services</td>
<td>E-commerce and supply chain solutions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Third party products (insurance, mutual funds, gold savings, game vouchers)</td>
<td></td>
<td><img src="red.png" alt="Red" /></td>
<td></td>
</tr>
</tbody>
</table>

Green indicates the use case that are being currently offered by the agents. Red indicates use case is being offered in a restricted manner or through partnerships. Grey indicates the use cases which are currently not being offered by agents either due to regulatory restrictions or as part of business strategy of service provider.

1. * since LKD and Fintech players offer mobile based solution, account to account transfer entails remote transactions
2. Low, medium and high - These are indicative and intends to show the uptake of different type of transactions that are currently being offered by agent networks
For agent technology, banks typically use **EDC technology**, with the non-banks investing in smartphone apps

The banks use of legacy EDC technology, making their services rigid and expensive. Non-banks have adopted a digital business approach with human centered design and agile development to release new features.

<table>
<thead>
<tr>
<th>Providers</th>
<th>Type</th>
<th>EDCs-Card</th>
<th>Smart EDCs</th>
<th>USSD</th>
<th>Web</th>
<th>Smartphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank BRI</td>
<td>State-Owned Bank</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Bank BNI</td>
<td>State-Owned Bank</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Bank Mandiri</td>
<td>State-Owned Bank</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Bank BTPN</td>
<td>Private Bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Grab Kios</td>
<td>Fintech</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Bukalapak</td>
<td>Fintech</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Linkaja</td>
<td>Fintech + LKD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Non-bank digital first approach has made the business model more agile and significantly reduced agent hardware costs.
Rural customers are not ready to go fully digital. Agent assisted services will require alternative approaches for ID verifications and payment authentication

- While the mobile phone ownership in rural areas is 63.6\%\(^1\), the ability to perform financial transactions through a mobile phone is fairly limited. Over The Counter (OTC) account for ~85\%+ of agent transactions.

- The evidence from G2P program (BPNT/PKH) suggests that for card based benefits disbursement, remembering PIN is an issue for many beneficiaries (14\%)\(^2\), plus is often the PIN is compromised.

- The beneficiaries account opening process in G2P programs is expensive as bank staff have to first physically verify the beneficiaries.

- Only 28\%\(^3\) of agents offer account opening services. Agent account opening usually takes 7-15 days. In the absence of online e-KYC solution, customer acquisition is prohibitively expensive and inefficient process for both banks and non-banks.

---

2. Operations assessment and impact evaluation of Program Keluarga Harapan (PKH), 2019 - MSC
3. ANA (2017)
Despite contributing actively to the household income, Indonesian women are at the risk of being left behind in rapidly evolving digital economy

1. **Labour force participation**
   53% of Indonesian women participate in labour force compared to 83% participation from men.

2. **Women owned micro-enterprises**
   Despite such stark divide, women participate extensively in the MSME sector. 60% of the over 53 million microenterprises in Indonesia are run by women.

3. **Financial literacy levels**
   OJK survey (2016) shows that women’s financial literacy rates (25.5%) are much lower than men (33.2%)

---

**Gender Gap**

- **Account ownership**
  - Men: 46%
  - Women: 51%
  - Gender Gap: -23%

- **Made or received digital payments in last one year**
  - Men: 34%
  - Women: 35%
  - Gender Gap: 1%

- **Debit card ownership**
  - Men: 29%
  - Women: 32%
  - Gender Gap: 3%

- **Borrowed from a financial institution**
  - Men: 19%
  - Women: 18%

**Gender split on access and usage of financial services**

- **Mobile ownership**
  - Men: 75%
  - Women: 66%
  - Gender Gap: 9%

- **Never used mobile internet for search**
  - Men: 46%
  - Women: 56%
  - Gender Gap: 10%

- **Never used social media on mobile phone**
  - Men: 45%
  - Women: 52%
  - Gender Gap: 7%

- **Emerging digital divide**
  - **e-money users**
    - Men: 4.9%
    - Women: 4.5%
    - Gender Gap: 0.4%

---

1. Findex, 2017
2. FII, 2018
Business model of service providers and agents
While the total number of agents have grown significantly, the market continues to be dominated by Bank BRI

While the following analysis is done on active agent count, BRI dominates the agency channel in terms of transaction volumes and value, especially due to the large flow of money transfer transactions flowing through its agent networks. The success of Bank BRI can also be attributed to its large network of physical operating units¹ that are almost 3-4x times more than its competition (Mandiri and BNI)

---

1. Operating units include regular branches, micro-branches and specialised branches (Teras). As per BRI’s annual report (2019), it has a total of 9,618 operating units compared to Bank BNI’s 2054 operating units, Bank Mandiri’s 3,053 operating units.

2. The market share analysis does not take into account agent overlap as agent cannot be attributed to a single provider in case of an overlap.
A recent BCG-MSC study suggests that agent networks economics are not sustainable - at both provider level as well as agent level

The sustainability of rural agents is even more challenging given higher investments and low transaction volumes

**Service provider economics: banks and payments e-money providers**

<table>
<thead>
<tr>
<th>Monthly economics per agent (as a % of revenue)</th>
<th>Gross revenueAgent commissions (fees &amp; deposit deployment)</th>
<th>Intermediary compensation(^2)</th>
<th>Net revenue</th>
<th>Ongoing channel costs</th>
<th>Monthly loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>35-70%</td>
<td>15-50%</td>
<td>40 – 70%</td>
<td>10%++</td>
<td>0-10%</td>
</tr>
</tbody>
</table>

Out of ~64,000 agents\(^5\) that would be needed to serve excluded population in *rural frontier* and *oasis* areas, ~90% are likely to face economic or operational viability challenges

Despite the low breakeven transaction levels\(^3\) (1-3 txns/day for Laku Pandai agents and 3-4 txns/day for LKD agents), 21% of the agents fail to breakeven of agents fail to break-even while 75% of agents earn less than USD 20 per month\(^4\).

---

1. Payment e-money providers includes LKD players and some Fintech agent networks. The BCG-MSC study used a slightly different classification for the agents
2. Intermediaries includes vendors such as bill aggregators
3. CICO Economics in Indonesia (BCG – MSC), 2019
4. ANA Indonesia, 2017
5. The number might be underestimated as the analysis does not take into account agent dormancy
The non-bank business models make them cheaper to set up and maintain agent networks, however until they scale profitability is still a challenge.

Typical agent set-up costs¹
(per agent per month)

<table>
<thead>
<tr>
<th></th>
<th>Banks</th>
<th>Non-banks (E-money)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDR</td>
<td>4,500,000 (~USD 300)</td>
<td>300,000 (~USD 20)</td>
</tr>
</tbody>
</table>

-93%

Typical channel costs¹
(per agent per month)

<table>
<thead>
<tr>
<th></th>
<th>Banks</th>
<th>Non-banks (E-money)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDR</td>
<td>300,000 (~USD 20)</td>
<td>100,000 (~USD 6.6)</td>
</tr>
</tbody>
</table>

Includes cost of maintaining front end technology, field staff, marketing and training of agents

Net loss per agent / month

<table>
<thead>
<tr>
<th></th>
<th>Banks</th>
<th>Non-banks (E-money)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDR</td>
<td>100,000 (~USD 6.6)</td>
<td>70,000 (~USD 4.6)</td>
</tr>
</tbody>
</table>

1. CICO Economics in Indonesia (BCG – MSC), 2019
2. ANA Indonesia, 2017
Digitization of G2P programs has not revitalized rural CICO networks as hoped

The two large G2P programs, PKH$^1$ and BPNT$^2$, reach ~15 million beneficiaries through ~73,000$^3$ agents. As a policy, the distribution of G2P has been restricted to the four large state-owned banks.

The economics of G2P agent networks also impacts their quality and reliability.

Choice of channel for withdrawal of PKH funds
(n=1465; multiple responses)

- **ATM**: 69%
- **Bank Agent**: 15%
- **Bank Staff**: 10%
- **Bank Branch**: 7%
- **e-warong KUBE**: 3%

82% of the PKH beneficiaries withdraw the entire funds as soon as it is credited. ATMs are preferred channel for cash-outs.

The economic model of current G2P program is not sustainable

- **Banks are not paid commission** to distribute G2P funds. Government incentives is based on banks receiving the funds 30 days in advance of payment date and earning interest income on the float. Banks claim they earn no/little interest from these funds.

- The card-based model for G2P distribution increases the agent technology hardware cost, in addition card issuing costs per card is IDR 120,000 – 150,000 (USD 8-10)

- Bank agent and customer (beneficiary) acquisition costs are high.

- Bank monthly agent channel costs are high (IDR 250,000 – 550,000/month)

- 3rd party partnership restrictions prevent banks from outsourcing to lower the cost of agent acquisition and management.

---

1. Program Keluarga Harapan (PKH) is a conditional cash transfers program that aims to incentivize behavior change of poor households in accessing specified health and education services.
2. Bantuan Pangan Non-Tunai (BPNT) is the in-kind food subsidy program of the Indonesian government targeted at poor households.
G2P’s success has been beneficiaries opening their first formal account, however benefits are cashed-out in full without further digital transactions

Lack of awareness and unavailability of use cases at the agent point means than majority of the funds are cashed out

- PKH program shows that for 86% of the beneficiaries, KKS linked bank account is their first formal account\(^1\)
- However only a few beneficiaries use KKS linked bank accounts for other financial services

Use of KKS cards for other financial services

<table>
<thead>
<tr>
<th>Service</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savings</td>
<td>8%</td>
<td>83%</td>
</tr>
<tr>
<td>Purchase</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Bill Payment</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Receiving Money</td>
<td>39%</td>
<td></td>
</tr>
<tr>
<td>Transfer Money</td>
<td>61%</td>
<td></td>
</tr>
</tbody>
</table>

In case of BPNT, ~75% of the agents manage the supplies (rice, eggs) of food stock themselves\(^1\)

- There is information asymmetry with regards to supply chain options and pricing of food stocks which leads to inefficiencies in procurement
- 17% of the e-warongs experience food stock outs during disbursements
- In many cases, TKS/K/KH facilitator/e-warong operators encourage transaction of the amount within the same month to manage food stock at e-warongs
- There is a clear opportunity to optimise the value chain to make it more efficient and hence improve the viability of individual agents
Strategic partnerships
Investment in digital economy businesses and use of agents to deliver services, has potential to unlock DFS uptake and usage

**Rising fintech industry**
- USD 185 mn funding for Indonesian fintech, 2nd highest in ASEAN 2018¹
- 244 fintechs, dominated by payments and lending Fintechs²
- Growth in non-conventional agent based delivery models²

**G2P programs have potential to boost DFS adoption in rural areas**
- ~15 mn beneficiaries receive some form of social assistance (PKH & BPNT) through DFS channels
- GoI plans to extend social assistance program for fertilizer and gas subsidy (> 30 mn beneficiaries)
- Increased private sector play in G2P programs could significantly impact rural DFS transaction volumes

**Innovative use cases delivered through strategic partnerships**
- Currently, service aggregation at agent points is not optimized due to lack of strategic partnerships
- Relaxation in regulatory restrictions will enable banks and non-banks to deliver better value propositions

**Indonesia focus on building a robust digital economy infrastructure**
- Indonesia Payment Vision 2025³ outlines roadmap for development of interoperable and real-time retail payments infrastructure
- Public private partnerships in place to improve telecommunication access in rural areas
- Ongoing pilots on e-KYC to make the customer onboarding process more efficient

Notes:
2. Fintech Landscape di Indonesia (AFTECH – 2019)
3. Data source for Indonesia Payment System Vision 2025, Bank of Indonesia
Providers in Indonesia are experimenting with a variety of use cases for both agents and customers by forging strategic partnerships…

<table>
<thead>
<tr>
<th>Partners</th>
<th>Strategic complementarity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payfazz with Modal Rakyat</td>
<td>PayFazz PPOB agents can access short term working capital loans (up to IDR 5 million or US$ 350). The loans are for 30-60 days time period and provided through an online platform.</td>
</tr>
<tr>
<td>Bank BNI with True Money</td>
<td>Around 16,000 PPOB agents of True Money are able to offer account opening, savings and withdrawal transactions for Bank BNI customers.</td>
</tr>
<tr>
<td>Bukalapak and Dana</td>
<td>Dana provide e-money system for small medium enterprises in Bukalapak network. It reduces the cost of costumer acquisition for Dana while Bukalapak gets a white-label e-wallet solution and saves investment in an e-money license.</td>
</tr>
<tr>
<td>Banks and Finfleet</td>
<td>Finfleet, through its field staff (~500), provides account opening to multiple banks. Amongst other services, Finfleet also provides cash on delivery (COD) to e-commerce companies as well as loan contract courier services to P2P lending companies.</td>
</tr>
</tbody>
</table>
However these partnership have mixed results, hindered by regulatory restrictions on agents and rigid bank legacy business models

- May 2019 - Bank BNI and Grab Kios partner to allow Grab agents to provide Bank BNI’s Laku Pandai services
- 1st phase included 13,000 KUDO agents, with the target to expand to 200k + Grab Kios agents in near future

**Strategic complementarities**

- Bank BNI reduce agent acquisition and maintenance costs
- Grab Kios increase platform services, enhancing overall individual agent revenue and sustainability

**Challenges**

- Per regulations, banks need to have contractual arrangements with individual agents. This makes agents sign up time-consuming and costly
- Bank delivery processes (designed for EDCs) for account opening and transactions required significant reengineered for delivery via Grab’s mobile platform
- Low transaction volume mean Grab Kios require multiple banks partnerships to make the model sustainable for them
Current practices in agent network management
Most agents have to manage liquidity on their own

- 63% agents report facing barriers to managing liquidity due to:
  - Lack of investment capital
  - Difficulty in managing demand fluctuation
  - Time taken to rebalance at bank branches, mini-marts etc..

- Banks and non-banks typically do not proactively track liquidity positions of agents, or provide on-site rebalancing / short term credit

- ~30% active agents have working capital challenges:
  - Typical requirements range from IDR 5-15 million (USD 300-1000).
  - Some non-banks have a pay-later product, however it is used for e-commerce / physical goods transactions

- **Lack of working capital** prevent majority of non-bank agents from providing money transfer (to a bank account) due to the high value of transaction. Agents prefer low value bill payments & top-up transactions which has lower margin. This **means agents miss out on higher margin, more profitable money transfer transaction**

---

1. ANA Indonesia (2017)
2. BCG-MSC analysis – CICO Economics in Indonesia (2019)
Monitoring and supervision practices are ineffective

- 26%¹ of rural agents receive a regular (once a week) monitoring visit. Due to limited support staff, providers prioritize non-performing agents for visits.

- Banks manage agents through their branches -with field officers assigned to manage 50-150 agents, tasked to recruit, train, monitor and supervise. Often, the existing retail banking staff is deployed to manage agent networks even though they may not have right skill sets.

- Non-banks - some manage with specialised teams to monitor agent, others have experimented with super agent model. However, the teams are small compared to size of agent networks they are tasked to manage.

- Lack of sophisticated agent management systems (data analytics), coupled with limited people resources result in sales staff functioning as a pseudo call centre resolving transaction queries over calls WhatsApp groups, instead of performing more strategic BD activities such as recruitment and training.

1. ANA Indonesia (2017)
Regulations analysis
The regulatory landscape enhances challenges to agent network sustainability (1/3)

Fintech agent networks do not operate under any regulatory framework, however they tend to face similar restrictions as LKD agents

<table>
<thead>
<tr>
<th>Regulatory Requirements</th>
<th>Branchless Banking <em>(Laku Pandai)</em></th>
<th>E-Money <em>(LKD)</em></th>
<th>Implications on market development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regulatory Authority</strong></td>
<td>Otoritas Jasa Keuangan (OJK)</td>
<td>Bank Indonesia</td>
<td>Lack of harmonization between the regulatory framework by the two regulators has implications for a level playing field between banks and non-banks.</td>
</tr>
<tr>
<td></td>
<td><em>(Responsible for financial institutions regulations and supervision including banking, insurance and capital markets)</em></td>
<td><em>(Central Bank - Responsible for macro-prudential regulations, also manages the national payments system)</em></td>
<td></td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>Commercial banks (including regional development banks), with min. risk rating and capital requirements, can offer branchless banking services.</td>
<td>Both banks and non-banks can be e-money issuers</td>
<td>Banks that have both e-money and BSA products delivered via agent channel often face issues of product cannibalization</td>
</tr>
<tr>
<td><strong>Exclusivity Requirements</strong></td>
<td><strong>Individual agents should be exclusive</strong>, however, an agent can serve two banks, provided one is a Shariah bank</td>
<td>Exclusivity is not restricted. An agent can serve multiple providers</td>
<td>Restriction on banking agent non-exclusivity impacts sustainability of agents, especially in remote rural areas where demand is limited.</td>
</tr>
</tbody>
</table>

Fintech agent networks do not operate under any regulatory framework, however they tend to face similar restrictions as LKD agents.
### Regulatory Requirements

<table>
<thead>
<tr>
<th>Regulatory Requirements</th>
<th>Branchless Banking <em>(Laku Pandai)</em></th>
<th>E-Money <em>(LKD)</em></th>
<th>Implications on market development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identity</strong></td>
<td>Banks are allowed to recruit individuals/unregistered businesses as their agents</td>
<td>Bank can recruit individuals/unregistered businesses (mom &amp; pop stores) as agents. <strong>Non-banks can only recruit registered legal entities as their agents</strong></td>
<td>Significantly restricts the overall business model of non-banks who are unable to tap into the retail distribution network to offer DFS services</td>
</tr>
<tr>
<td><strong>Permitted services</strong></td>
<td>All basic banking services including account opening, CICO, remittances, loans, bill payments and third party products like insurance</td>
<td>All basic payments services are permitted. <strong>However, cash-out and money transfers can be done through registered e-money accounts only</strong></td>
<td>Restriction on cash-outs coupled with restrictions to recruit individual agents, restricts non-banks ability to offer remittance services and other use cases that may require cash-outs</td>
</tr>
<tr>
<td><strong>Authorization</strong></td>
<td>Banks need to report agent numbers to OJK on monthly basis. Need prior approval from OJK for signing an MoU with legal entity for agent network partnership. <strong>Restriction on outsourcing ANM services to third party</strong></td>
<td>The authorization of both individual and legal entity LKD agents is conducted internally by service providers. The authorization happens after service providers conduct internal due diligence, agent training and education</td>
<td>The restriction on ANM services restricts most banks to efficiently scale up their operations. While some partnerships emerged, the banks are still required to contract individual agents. Other institutions are risk averse and do not want to operate in regulatory grey area</td>
</tr>
</tbody>
</table>

---

**The regulatory landscape enhances challenges to agent network sustainability (2/3)**
The regulatory landscape enhances challenges to agent network sustainability (3/3)

<table>
<thead>
<tr>
<th>Regulatory Requirements</th>
<th>Branchless Banking (Laku Pandai)</th>
<th>E-Money (LKD)</th>
<th>Implications on market development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geographical Limits</strong></td>
<td>To receive a Laku Pandai license, the concerned bank needs to have branch network in Eastern Indonesia</td>
<td>No geographical limits are defined</td>
<td>The existing definition of having branch network in Eastern Indonesia is vague. In practice, it does not have any significant implications in necessitating providers to setup branches in remote areas</td>
</tr>
<tr>
<td><strong>Tiers</strong></td>
<td>The regulations define 6 agent tiers (A,B,C,D,E,F, G) depending on services being offered by the agents.</td>
<td>No tiers are defined</td>
<td>The market, in general, does not have risk based regulatory framework for agent networks</td>
</tr>
</tbody>
</table>
Policy analysis
The overall policy environment is intended to boost digital economy (1/3)

DFS agents could provide be a critical last mile link for driving the adoption of digital services in rural communities

<table>
<thead>
<tr>
<th>Policies</th>
<th>Agency Responsible /Enforcement</th>
<th>Description</th>
<th>Implications on CICO network</th>
</tr>
</thead>
</table>
| Indonesia Payment System (IPS) Vision Blueprint 2025                    | Bank Indonesia; Vision document | • Launched in 2019, the policy outlines Indonesia’s roadmap for development of interoperable and real-time retail payments infrastructure.  
  • QRIS\(^3\) and BI-Fast\(^4\) are two important infrastructure deployments planned for to development and scale up                                                                                                                                                    | • ~1.7 million merchants are QRIS enabled as of January 2020.  
  • QRIS has lowered the transaction costs (to 0.7% from > 1%) for digital payment acceptance by small merchants.  
  • Anecdotal evidence suggests that QRIS merchants are catering to the cash-out needs of ride hailing drivers.  
  • BI-FAST is expected to bring in necessary network effects for money transfers by including a wide network of banks |
| Badan Aksesibilitas Telekomunikasi dan Informasi (BAKTI)\(^2\)          | Ministry of Information and Communication Technology (ICT); Regulation No. 25 (2015) on implementation of Universal Service Obligation | • Installation of Base Transceiver Station (BTS) in remote areas – targets areas with min. 5000 population in the frontier, outermost and disadvantaged regions for telecommunications access                                                                                                                       | • 427 BTS has been installed in the frontier, outermost and disadvantaged regions until December 2019.  
  • The program will reduce total blank spots in Indonesia and consequently create necessary infrastructure for CICO network in the remote rural area |

AN: 1. Indonesia Payment System Vision 2025  
2. BAKTI Program  
3. Interoperable front-end systems to accept payments through QR codes  
4. Real-time and interoperable mobile payments systems  
1. A Indonesia (2017)
The overall policy environment is intended to boost digital economy (2/3)

<table>
<thead>
<tr>
<th>Policies</th>
<th>Agency Responsible /Enforcement</th>
<th>Description</th>
<th>Implications on CICO network</th>
</tr>
</thead>
</table>
| Indonesia E-Commerce Roadmap 2017-2019 | • Presidential Regulation No. 74 (2017) | • Regulates, cybersecurity, logistics, taxation, human resource development and consumer protection  
• Launch of new e-commerce roadmap is scheduled in 2020. | • The new roadmap will further anchor the development of digital economy, especially in the distribution of KUR⁴.  
• **DFS agents may be potential channel to effectively distribute KUR and also be consumers of such loan facility**                                                                                                                   |
| Draft law on General Data Protection¹ | • Parliament: Draft Law | • The law will not only stipulate the regulations for data protection but it will also require localization of data in Indonesia.  
•Aligned with European Union’s General Data Protection Regulation (GDPR) | • The law lays down the ground rules for more connected digital ecosystems, which may have an impact in terms more interoperable digital solutions delivered via agents                                                                                                                                 |

¹ Law on General Data Protection - Presentation from Ministry of ICT to The Indonesian House of Representative – 5th Feb, 2020
The overall policy environment is intended to boost digital economy (3/3)

<table>
<thead>
<tr>
<th>Policies</th>
<th>Agency Responsible /Enforcement</th>
<th>Description</th>
<th>Implications on CICO network</th>
</tr>
</thead>
</table>
| G2P¹     | • Presidential regulation No. 63 (2017) - overall delivery mechanism and eligible financial service providers;  
  • MoSA - operational guidelines for G2P implementation  
  • BI - payment system design for G2P disbursements | • These policies define the overall mechanism for G2P payments in Indonesia. | • The existing policies restrict distribution of G2P to the four state-owned banks.  
  • Banks are not provided any commission to conduct G2P disbursements.  
  • The choice of payment instrument currently is restricted to cards |

| Making Indonesia 4.0² | Ministry of Industry; Policy roadmap | • Integrated roadmap to implement a number of strategies for Indonesia  
  • Roadmap entails 10 priorities ranging from human resources development and digitization of SME value chains | • CICO networks could potentially play an important role in digitizing payments for SME value chains especially in remote areas where banking infrastructure is limited |

---

1. Interview notes with Ministry of Social Affairs and Presidential Regulation 63 Year 2017  
2. Making Indonesia 4.0 - Ministry of Industry
Recommendations
In order to boost the rural CICO networks in Indonesia, all the key stakeholders will have to play their part

<table>
<thead>
<tr>
<th>CGAP Principles</th>
<th>Policies</th>
<th>Regulations</th>
<th>Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable rural CICO agents generate more revenue streams</td>
<td></td>
<td>Non-exclusivity of agent networks</td>
<td>Revitalizing G2P agent networks through product and service innovations</td>
</tr>
<tr>
<td>Make CICO agents more accessible to rural customers</td>
<td>Mandates to set up agents in remote areas and income guarantees for agents in such locations; Geo tagging agent locations and building a public resource for agent location mapping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expand the range of people than can serve as CICO agents</td>
<td>Removing regulatory restrictions on non-banks to recruit individual agents</td>
<td>Providers tap into alternative distribution channels to enhance rural coverage</td>
<td></td>
</tr>
<tr>
<td>Identify and manage risks posed by rural agents without stopping innovation</td>
<td>Regulatory sandbox to test innovation; Risk based agent supervision</td>
<td>Data analytics for agent network management and proactive risk control measures</td>
<td></td>
</tr>
<tr>
<td>Develop data driven strategy to close gender gap in CICO access and usage</td>
<td></td>
<td>More customised product &amp; service design - targeting women segments</td>
<td></td>
</tr>
<tr>
<td>Expand public-private partnership that share CICO agents</td>
<td>KYC and payments infrastructure built on National ID system; Extending G2P distribution to private sector; Leveraging KUR and UMi programs for providing loans to DFS agents</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Principle 1: Enable rural CICO agents to generate more revenue streams

Sustainability of rural agents in Indonesia suffers due to low transaction volumes coupled with higher investment requirements. The key rural agent sustainability would be greater service aggregation. Potential steps that could enable greater service aggregation include:

1. Non-exclusivity of agent networks (Appendix 1.2)
2. Revitalizing G2P agent networks through product and service innovations (Appendix 1.4)

Principle 2: Make CICO agents more accessible to rural customers, as defined by the local context

Geographical location and disparity in infrastructure continue to be a hindrance in recruiting rural agents and providing CICO access to rural customers. Policies to incentivize rural CICO networks development

1. Mandate to set up at least one agent per village. Minimum pay outs to agents set up in remote rural villages. Countries such as India, Colombia and Brazil have experimented with income guarantees (for agents) and mandates to drive CICO access in remote rural areas.
2. Geo-tagging agent location and developing a public resource to track agent accessibility across rural frontier areas.
Principle 3: Expand the range of people that can serve as CICO agents

The existing CICO landscape in Indonesia is currently dominated by commercial banks. Given the regulatory restrictions, non-banks are not able to realize the full potential of their distribution networks. The steps that would enable greater innovation in CICO networks diversity include:

1. Removing regulatory restrictions on non-banks to recruit individual agents (Appendix 1.2)
2. Providers should tap into alternative distribution channels such as Pt. POS, BUMDES do expand agent networks in remote rural areas (Appendix 4.1)

Principle 4: Identify and manage consumer protection and other risks posed by rural agents without stopping innovation

Indonesia is one of the few countries which has a wide array of players experimenting with different kinds of agent networks to provide digital financial services to the unserved and underserved population. For such agent networks to realize their true potential, regulators and providers will have to work together promote innovations in the sector while carefully assessing risks in a controlled yet enabling environment. Some measures that can promote responsible innovations include:

1. Regulatory sandbox to test innovation; Risk based agent supervision (Appendix 1.1 1.2)
2. Data analytics for agent network management and proactive risk control measures (Appendix 1.6)
Indonesian DFS landscape is more equitable compared to some of the international markets with regards to gender dynamics. Access to financial services in terms of account ownerships is almost equal between men and women. Also, close to 60% (ANA, 2017) of the DFS agent outlets are run by women agents. Despite such encouraging numbers, the service provider in Indonesia currently do not offer specific products or customize delivery channels for women. There is huge untapped opportunity to offer more gender specific products and services through CICO networks.

1. Customised products and delivery channels aimed at tapping specific use cases for women such as maternal health, children education etc.

The rural CICO networks in Indonesia can be optimized only if necessary public infrastructure is in place to incentivize and enable private sector participation. Potential public-private partnerships or policy initiatives include:

1. KYC and payments infrastructure built on National ID system (Appendix 1.3)
2. Extending G2P distribution to private sector (Annex 1.4)
3. Leveraging KUR and UMi programs for providing loans to DFS agents (Annex 1.5)
Thank you

To learn more, please visit
www.cgap.org
Appendix - 1

Recommendations
1.1 The regulatory framework for agent networks will need to be differentiated depending on underlying risks, irrespective of provider type (bank or non-bank).

The proposed framework will enable innovations and collaborative approaches for effective agent networks.

<table>
<thead>
<tr>
<th>Cash merchants</th>
<th>Regular agents</th>
<th>Full service agents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-Exclusive</strong></td>
<td><strong>Non-Exclusive</strong></td>
<td><strong>Exclusive</strong></td>
</tr>
<tr>
<td><strong>Permissible activities</strong></td>
<td><strong>Permissible activities</strong></td>
<td><strong>Permissible activities</strong></td>
</tr>
<tr>
<td>CICO, PPOB</td>
<td>CICO, PPOB, G2P, third party financial products (insurance, mutual funds, microloans), BSA opening</td>
<td>CICO, PPOB, G2P, third party financial products (insurance, mutual funds), regular account opening, loans</td>
</tr>
<tr>
<td><strong>Risk Category</strong></td>
<td><strong>Risk Category</strong></td>
<td><strong>Risk Category</strong></td>
</tr>
<tr>
<td>Operational</td>
<td>Operational, Reputational</td>
<td>Operational, Reputational, Legal, AML/CFT</td>
</tr>
<tr>
<td><strong>Supervisory Approach</strong></td>
<td><strong>Supervisory Approach</strong></td>
<td><strong>Supervisory Approach</strong></td>
</tr>
<tr>
<td>Offsite surveillance (Analytics), provider risk management practices</td>
<td>Offsite surveillance (Analytics), provider risk management practices, complaint monitoring, txn. Limits</td>
<td>Offsite surveillance (Analytics), provider risk management practices, complaint monitoring, txn. limits, individual agent authorization, on-site supervision</td>
</tr>
<tr>
<td><strong>Low Risk</strong></td>
<td><strong>Medium Risk</strong></td>
<td><strong>High Risk</strong></td>
</tr>
</tbody>
</table>
### Concept 1

**Market Failure** – Banks loosing money on agent channel due to lack of service aggregation at agent point and poor agent network management practices.

**Pilot Test Concept** – Third party agent network managers servicing non-exclusive agents.

**Effectiveness parameters:**
1. Profitability of individual agents
2. Sustainability of service providers & ANMs
3. Risk management approach adopted by service provider and third party agent network manager

### Concept 2

**Market Failure** – Non-banks unable to innovate on financial products and services due to restriction on individual CICO agents.

**Pilot Test Concept** – Allowing non-banks/Fintech to recruit individual agents and offer CICO services.

**Effectiveness parameters:**
1. Increased usage of DFS services accounts by mass markets
2. Development of innovative use cases and products
3. Adherence to AML/CFT guidelines

### Concept 3

**Market Failure** – Beneficiaries do not have choice of transaction instrument and service providers to receive G2P payments.

**Pilot Test Concept** – Allow other banks (beyond state-owned) and non-banks to deliver G2P services.

**Effectiveness parameters** –
1. Beneficiaries use the G2P accounts for other fin. services
2. Increase in usage of fintech services by G2P beneficiaries
3. Secured transactions & reduction in beneficiary grievance
1.3 A public infrastructure for e-KYC & e-authentication using biometrics will be critical in augmenting financial inclusion levels in rural areas

Also, such facility will encourage fintechs to explore market opportunities in peri-urban and rural areas

- Government estimate suggests that close to 95% of the population have e-KTP. Despite the near universal access to National ID, the application of digital authentication/KYC for accessing financial services is fairly limited. While Government of Indonesia has its strategic priorities around digital economy, the infrastructure on e-KYC and e-authentication using National ID database would be critical.

- **Call to Action**

  An inter-ministerial task force should be convened to develop a Vision Document on the implementation of eKYC and e-authentication facility as part of Digital Economy initiatives.

  - The task force should come out with clear guideline on the private sector engagement both for financial service providers or for third party who will offer the services to other institutions.

**India Case Study - Aadhar enabled payment system (AEPS)**

- In order to make financial transactions simple for less literate rural population, the National Payments Corporation of India (NPCI), developed a biometric based payment system linked to Aadhar (the national ID database of residents).

- Through AePS, a customer can deposit, withdraw and transfer money by using biometric authentications.

- More than 362 million transactions were done using AePS in financial year 2019-20. AePS was particularly useful in processing large volumes of G2P transactions in rural areas.

Back to main deck
1.4 With appropriate policy impetus, G2P will have immense potential in revitalizing rural CICO networks

Partnership between non-banks/fintechs with banks can enable lower distribution cost and greater service aggregation at the agent point. Also, allocating budget for service providers to meet their distribution cost will be critical to ensure private sector engagement.
### Loans for DFS agents

(under KUR¹ and UMi² programmes of Government of Indonesia)

<table>
<thead>
<tr>
<th>Service Offerings</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Loans for financing working capital needs of DFS agents (short term credit line which can be enhanced based on transaction volumes)</td>
</tr>
<tr>
<td>• Loans for financing CAPEX needs of DFS agents (longer term loans with balloon repayments at the end of the term)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financing Arrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The DFS service provider will source the loans for financing institutions along with transaction data and KYC data of the agents</td>
</tr>
<tr>
<td>• Loans are underwritten by the designated institutions distributing KUR and UMi loans based on credit scores</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Agents get pre-approved credit lines on the service provider application based on their transaction history and eligibility levels</td>
</tr>
<tr>
<td>• APIs between DFS service providers and financing institutions for data sharing, application and monitoring</td>
</tr>
</tbody>
</table>

### Value Proposition for Stakeholders

**Financing Institutions**
- Access to a large customer base, helps them meet their targets
- Usage of loans for productive purposes
- Loan approvals based on transaction history

**DFS service provider**
- Push more use cases through agents
- Drive transaction volumes

**Agents**
- Access to low-cost and timely capital for growing DFS business line

---

1. Subsidised MSME loan program of Government of Indonesia. The loans targeted at micro-enterprises can range up to IDR 25 million (~USD 1800)
2. Government of Indonesia program for collateral-free subsidised loans for micro-enterprises, Limit on maximum loan amount is IDR 10 million (~USD 725)

---

**Back to main deck**
1.6 The provider will need to have more proactive approach to manage agents, especially in rural areas

More exposure to best practices on agent network management from other international markets would be helpful

- **Tapping in alternate channels for rural CICO expansion**
  - BUMDES, PT. POS, FMCG distribution networks could be few such alternatives

- **Optimize business models for sustainability**
  - Revisit uses cases, customer fees and agent commissions

- **Using technology driven agent management systems**
  - Exposure to international best practices from India, Kenya and Latin America markets could trigger innovations

- **Manage risks**
  - Technology driven risk control measures for suspicious transactions, customer service issues

Using technology driven agent management systems
Exposure to international best practices from India, Kenya and Latin America markets could trigger innovations
Appendix - 2

Potential Future State of Agent Networks in Indonesia
Potential future state of agent networks in Indonesia

A collaborative approach to agent network development and management could be a win-win proposition for all the concerned stakeholders

<table>
<thead>
<tr>
<th>1. Regulatory Compliance &amp; Product Management</th>
<th>Service providers: Banks and non banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Sophisticated Agent Network Systems</td>
<td>Specialized Agent Network Managers (Non-exclusive)</td>
</tr>
<tr>
<td></td>
<td>Non Bank/ Fintech</td>
</tr>
<tr>
<td>3. Risk based Regulator Supervision</td>
<td>Agents</td>
</tr>
<tr>
<td>4. Service Aggregation</td>
<td>Customers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product and services design</th>
<th>Quality control SLAs</th>
<th>Regulatory compliance</th>
<th>Open APIs for partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artificial intelligence and machine learning based analytics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recruitment &amp; Training</td>
<td>Credit</td>
<td>Liquidity management support</td>
<td></td>
</tr>
<tr>
<td>Contracting, training through digital platforms, gamification, on-site</td>
<td>Working capital &amp; term loans, customized offers through data driven approach</td>
<td>(float runners, uberization, ojek)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cash merchants</th>
<th>Regular Agents</th>
<th>Full stack agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-exclusive</td>
<td>Non-exclusive</td>
<td>Exclusive</td>
</tr>
<tr>
<td>Low risk</td>
<td>Medium risk</td>
<td>High risk</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Basic banking services</th>
<th>Merchant payments</th>
<th>e- governance initiatives</th>
<th>e-commerce O2O models</th>
<th>SME Payroll management</th>
<th>Digitized value chains</th>
</tr>
</thead>
</table>

A collaborative approach to agent network development and management could be a win-win proposition for all the concerned stakeholders.
In recent years, the fintech industry has also been growing at rapid pace, placing Indonesia as one of the leading Fintech innovation centres in South East Asia.

In 2018, Indonesian fintech sector received second highest amount of funding (USD 185 mn) in ASEAN region, behind Singapore (USD 222 mn).\(^1\)

Till June 2019, the industry had channelled cumulative loans worth IDR 44.8 trillion\(^3\) (~ USD 3.2 bn).

There are more than ~ 244 Fintechs operating in Indonesia. The market is currently dominated by payments and lending fintechs.

**Prevailing Fintech Business Models\(^2\)**

(No. of companies = 244)

<table>
<thead>
<tr>
<th>Services</th>
<th>No. of Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lending</td>
<td>106</td>
</tr>
<tr>
<td>Payments</td>
<td>61</td>
</tr>
<tr>
<td>Financial Marketplace</td>
<td>19</td>
</tr>
<tr>
<td>Equity Crowdfunding</td>
<td>5</td>
</tr>
<tr>
<td>Insuretech</td>
<td>6</td>
</tr>
<tr>
<td>Wealth Management &amp; Financial Planning</td>
<td>14</td>
</tr>
<tr>
<td>Misc</td>
<td>19</td>
</tr>
<tr>
<td>Enabler Services</td>
<td>14</td>
</tr>
</tbody>
</table>

Go-pay, OVO, Dana and Linkaja have emerged as the leading e-wallet providers. The industry players processed 2.9 billion e-money transactions worth IDR 47.1 (~ USD 3.4 bn) in 2018\(^3\).

---

2. Policy paper no. 23 – Chinese Investments in Indonesia’s Fintech Sector – Ajisatria Suleiman
3. Fintech Landscape di Indonesia (AFTECH – 2019)
Alternative Distribution Channels
4.1 The alternative distribution networks are yet to be optimally tapped for delivery of CICO services in rural areas (1/2)

PT. POS and BUMDES show maximum potential and to some extent these networks are already distributing some form of financial services

<table>
<thead>
<tr>
<th>Distribution Network</th>
<th>Description</th>
<th>Rural Penetration</th>
<th>Cash Handling Experience</th>
<th>Usage of Technology Platform</th>
<th>Alignment with Existing Business</th>
<th>Potential synergy to Improve CICO network</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT Pos¹</td>
<td>• Have ~58,000 branch and agents in Indonesia</td>
<td>High</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
<td>Could potentially provide liquidity management support for rural CICO agents. Have mobile agents as well which can be leveraged for COD services.</td>
</tr>
<tr>
<td></td>
<td>• Have developed PPOB system called Posfin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Also provide Cash on Delivery (COD) services for e-commerce</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Can track locations of their agents in real time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Village Owned Enterprises (BUMDES)²</td>
<td>• ~38,000 BUMDES in Indonesia out of which around 8,000 are already engaged in loan and saving services</td>
<td>Medium</td>
<td>High</td>
<td>Medium</td>
<td>Medium</td>
<td>Could provide last mile reach for formal financial services providers. Their channel is partially tapped by few service providers such as Bank BNI, Bukalapak and Tokopedia &amp; Sayurbox for e-commerce</td>
</tr>
<tr>
<td></td>
<td>• Some BUMDES are also serving as Laku Pandai and e-commerce agents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Have developed their own PPOB services called BUMDES pay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PT. Pertamina Retail³ (Fuel stations)</td>
<td>• Have ~ 7,500 outlets across Indonesia</td>
<td>Low</td>
<td>Medium</td>
<td>Low</td>
<td>Low</td>
<td>Despite their limited rural penetration, could potentially provide liquidity management support in peri-urban &amp; urban areas, especially for ride-hailing drivers &amp; other agents</td>
</tr>
<tr>
<td></td>
<td>• Integrating QRIS to provide cashless payment in fuel stations through e-wallets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Objective of digitizing payments in retail stores is to monitor fuel distribution and prices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. PT Pos Indonesia Annual Report 2018
2. Interview notes with Ministry of Village, 2020
3. Pertamina Retail Details on digitalisation of fuel station taken from BPH Migas

Suitability of the channel (on a particular parameter) for delivering CICO services

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Penetration</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Cash Handling Experience</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Usage of Technology Platform</td>
<td>Medium</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Alignment with Existing Business</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Potential synergy to Improve CICO network</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
</tbody>
</table>
4.1 The alternative distribution networks are yet to be optimally tapped for delivery of CICO services in rural areas (2/2)

<table>
<thead>
<tr>
<th>Distribution Network</th>
<th>Description</th>
<th>Rural Penetration</th>
<th>Cash Handling Experience</th>
<th>Usage of Technology Platform</th>
<th>Alignment with Existing Business</th>
<th>Potential synergy to Improve CICO network</th>
</tr>
</thead>
</table>
| PT Pegadaian¹         | State-owned pawnshop network  
• ~ 8,000 branches and agents in Indonesia  
• Primarily sell gold, provide loans against gold, gold savings and remittance services | | | | | Pegadian has initiated pilot with Bank Mandiri, wherein few of Pegadaian branches will be acting as Laku Pandai agents of Bank Mandiri. Pegadian branches can also potentially play a role of liquidity management points for CICO networks |
| Puskesmas²           | Government run primary health care centres  
• ~ 10,000 Puskesmas all over Indonesia | | | | | Do not provide financial services and CICO services may not be aligned with their existing activities |
| Private Midwives      | ~8,000 private midwives are attached to Puskesmas under BPJS, have private clinics as per requirements stated by Ministry of Health  
• ~350,000 private midwives operate in Indonesia, some of them have their own clinics while ~ 83,000 work in Puskesmas | | | | | Can potentially be Laku Pandai agents, especially catering to women financial needs. Have a steady footfall of women for family planning procedures |
| Convenience Stores³ (Alfamart & Indomaret) | Network of ~ 29,000 convenience stores spread across all the major cities in Indonesia | | | | | Already serving as agents for different providers, primarily engaged in providing PPOB services to customers |

1. PT Pegadaian Indonesia Annual Report 2018  
2. Ministry of Health, 2019  
3. Data source for Private Midwives in Indonesia taken from  
4. Data for convenience stores taken from databoks
Sustainability of rural agents
The sustainability of rural agents is even more challenging given higher investments and low transaction volumes.

Working capital requirements

IDR M.

- Rural: 5-15M ($340-1,030)
- Urban: 3-12M ($200-820)

Lower return on working capital required due to lower transaction volumes and higher working capital requirements.

Return on working capital

Monthly (%)

- Rural: 5-10%
- Urban: 10-25%

The ANA data suggests that a typical urban agent tends to earn 20% more than a rural agent while an agent in Greater Jakarta is able to make 4x times more earnings than their rural counterparts.

1. Payment e-money providers includes LKD players and some Fintech agent networks. The BCG-MSC study used a slightly different classification for the agents.
2. Intermediaries includes vendors such as bill aggregators.
4. ANA Indonesia, 2017.
Cost of front-end technology for DFS
The EDCs cost varies significantly and is a major cost component for the banks in setting up agents.

Most banks do not charge the agents for EDC, however, few banks put a requirement of security deposit (~ IDR 3 mn or USD 215) for an agent to sign up as Laku Pandai agent. Non-banks leverage the existing smartphones of the agents and hence do not incur any additional cost in providing agents with a transaction device. Few non-banks, do provide devices (which can plug-in or be connected to smartphones) to print-out physical receipts (~USD 25 – 60) for the transactions.

1. All the cost related data is based on stakeholder consultations and MSC analysis.

---

**Regular EDCs**
- Typical EDC used for in-store payments. Modified with additional functionalities to serve Laku Pandai use cases
- Costs USD 145 – 215 per unit. Some banks also rent out these devices at ~ USD 11 per month.

**Smart EDCs**
- EDCs that have smartphone enabled UI connected with card reading functionality.
  - Costs USD 215 – 290 per unit. Banks can also rent out these devices at ~ USD 15 per month.

**Special EDCs**
- These EDCs have functionality to read the data on e-KTP chip so that KYC can be done instantly by matching fingerprints with biometric data stored on e-KTP card
- These EDCs can only be purchased from vendors empanelled by Dukcapil. Costs USD 1000-1100 per unit. Banks can also rent out these devices at ~ USD 45 per month.

Majority of state-owned banks have strategic priority to shift their existing agents to low cost smartphone based platform in the next 2-3 years. Currently, 60%-80% of Laku Pandai agents of state-owned banks operate on EDCs.
Appendix - 7

Regulatory barriers for Fintech agents
The leading ride-hailing providers are only offering Cash-In services in a restricted manner, driver can cash-in for a customer who is on a live ride with them.

There is a large segment of population in urban areas, especially low income & less literate segments, that continues to use cash for ride hailing and other use cases because they do not have access to electronic channels to load their wallets.

Allowing cash-in through drivers, as an open service for non ride-hailing customers as well, can significantly unlock this opportunity and deepen digital payment adoption for low income segments. It can also help drivers to manage their own liquidity and an additional revenue stream.

Many fintechs are currently engaged in PPOB business, however, such networks cannot provide CICO services through their agent networks. This limits their ability to aggregate services at the agent point.

Restriction on offering CICO also restricts their ability to effectively scale up services around e-commerce and value chain digitization.

Non-exclusive partnerships with banks could potentially enhance the sustainability of Fintech agents and at the same lower the distribution cost for banks.
Appendix - 8

Digital economy initiatives
There is an overall government push towards digital economy with various ministries piloting different initiatives

Local Government Digital Wallet (TangselPay and OsingPay)

Local government’s white label digital wallet solutions aimed digitizing payments. It aims to increase total value of cashless transactions, reduce corruption and promotes efficiency in the local government financing system. The initiative is supported by Ministry of Home Affairs and e-wallet providers such as Paytren and Linkaja.

Since the implementation of cashless payment system, the regional budget revenue of Banyuwangi Regency grew 14.65% in 2018.

Digital Village

The digital village initiative aims to promote Internet of Things, wireless network, e-commerce system to promote efficiency in the public service delivery. One of the objective of digital village is also to digitalize village payment transactions, village fund distribution & utilization and to promote national non-cash movement through digital financial services. The program to promote digital financial services in village administration and Village Owned Enterprises (BUMDES) is supported by Bank of Indonesia and several e-commerce companies such as Tokopedia.

There are 8,947 BUMDES that are doing conduct saving and loans activities for their members

1. The development of local government payment system is supported by e-wallet providers such as Paytren and Linkaja
2. The digitalization initiative of saving and loan units in several BUMDES are also integrated with Lakupandai program.
Evolution of regulatory and policy environment for CICO networks in Indonesia
9.1 In the last 10 years, Indonesia has witnessed significant policy impetus in promoting digital financial inclusion

This regulatory and policy impetus has led to innovative service delivery models

- Bank of Indonesia launched e-money regulation in 2009
- BCA Flazz, Jakcard, Mandiri e-money, Tapcash were launched by respective issuers in 2010
- Brizzi and XL Tunai were launched by respective issuers in 2011
- Consultations and drafting of NFIS commenced in 2012
- BI conducts the first branchless banking pilot with 5 banks in 2013
- Interoperability in 3 Telcos for money transfer
- Mobile wallets (e-cash/ T-bank) for e-money launched in 2014
- Ministry of Social Welfare Affairs pilots G2P payments through e-Money
- BI allows BUKU IV banks to have unregistered agents
- KUDO was launched in 2014

Source: Prof. Njuguna Ndungu, Case Study for GSMA; Safaricom timelines; various news articles
9.2 In the last 10 years, Indonesia has witnessed significant policy impetus in promoting digital financial inclusion

This regulatory and policy impetus has led to innovative service delivery models

- BI allows BUKU III and BUKU II banks to have unregistered agents
- Creation of the SNKI and setting of the 75% bank account access target by 2019
- Ministry of ICT released General Data Protection Regulation in electronic system
- LAKU PANDAI regulation released by the Otoritas Jasa Keuangan (OJK)**
  - Licences given to 6 banks for Laku Pandai operations
- EKYC was regulated through POJK 12/2017
- Pilot of G2P (BPNT and PKH) in 44 cities though HIMBARA banks Gateway (NPG).
- Bank of Indonesia issued E-money regulation
- Emergence of Non-bank players due to OJK Regulation on Digital Financial innovation
- Indonesia Payment System Blueprint 2025 was launched by Bank of Indonesia
- Bank of Indonesia implemented QRIS
- Rapid growth in LAKU PANDAI agents nationally - led by BRI, BTPN and Bank BNI
- BI starts work on National Payment Gateway System
- BNI and Grabkiosk started partnership
- Linkaja was launched

Pre-pilot of G2P rice subsidy programme in 7 cities

Source: Prof. Njuguna Ndungu, Case Study for GSMA; Safaricom timelines; various news articles