Improving Logistics Performance through Digitalization
Third in the Beyond Unicorns Webinar Series
Why Logistics matters?
Why Logistics matters?

To producers and consumers
Logistics is about:

- getting the right product,
Logistics is about:

→ getting the right product,  
→ at the right quantity,
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→ getting the right product,
→ at the right quantity,
→ at the right condition,
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- getting the right product,
- at the right quantity,
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- at the right time,
- to the right customer,
Logistics is about:

- getting the right product,
- at the right quantity,
- at the right condition,
- at the right place,
- at the right time,
- to the right customer,
- and at the right cost.
Logistics is about:

→ getting the right product,
→ at the right quantity,
→ at the right condition,
→ at the right place,
→ at the right time,
→ to the right customer,
→ and at the right cost.
→ with the right documentation.
Improving Logistics Performance through Digitalization

2022
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2022
The logistics chain is about transaction from the first to the last mile.
Why Logistics matters?
Why Logistics matters?

→ Across the digital and analog economy
Transportation and logistics sector hold the largest share of Indonesian digital gig workers.

69% out of total 1.2 million digital gig workers.

Logistics is also one of the sectors that absorb most newly created digital jobs.

80% joined the transport and logistics sectors.

Improving Logistics Performance through Digitalization 2022
Transportation and logistics sector hold the largest share of Indonesian digital gig workers

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80% → joined the transport and logistics sectors

1% decrease in logistics cost =

- 2.1 pp increase in share of e-commerce buyers
- 8.1% increase in the #purchases per buyer
- 41.8% increase in the annual GMV per buyer
- 47.8% increase in the GMV per order
- 43.7% increase in the annual GMV per seller
Logistics Challenges
High logistics costs for manufacturers / sales across the archipelago

Sample size: 176 manufacturers across Indonesia, focused on the domestic market

High logistics costs for manufacturers / sales across the archipelago

Average logistics costs/sales (2016):

17.07%

Sample size: 176 manufacturers across Indonesia, focused on the domestic market

High logistics costs for manufacturers / sales across the archipelago

→ Average logistics costs/sales (2016):

20% 48% 27%

- TRANSPORTATION COST
- WAREHOUSING COST
- INVENTORY CARRYING COST
- ADMINISTRATION COST

Sample size: 176 manufacturers across Indonesia, focused on the domestic market

High logistics costs for manufacturers / sales across the archipelago

Average logistics costs/sales (2016):

- 20.32%
- 15.51%
- 23.31%
- 25.02%
- 30.01%

Sample size: 176 manufacturers across Indonesia, focused on the domestic market

Beyond costs, time and reliability/certainty

Sample size: 176 manufacturers across Indonesia, focused on the domestic market.

Beyond costs, availability and predictability of logistics services are an issue

↓ Low predictability is a key issue for merchants

- Parcels are not delivered on time: 20%
- Parcels are not picked up on time: 12%
- Parcels are damaged or lost en route to customer: 22%
- Difficult to find logistics service providers: 12%
- Cost of logistics is high: 34%

Logistics in the top 5 challenges for small merchants

#2 → Last-mile delivery – rural

#5 → E-commerce logistics and warehousing

Sample size: 614 merchants to-date; Online, phone and face-to-face

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Percentage share of household heads who do not shop online

Hassle of return (which is related to the ease of logistics) is the most cited reasons for not buying online.

Source: WB Digital Economy Household Survey, 2020
What are the drivers of high costs, long time, and uncertainty?
Challenges from the first to last mile

1. Geography
2. Transport Infrastructure
3. Logistics services outside of main economic areas*
4. Cross border processes

*Jabodetabek, Surabaya, Medan and Makassar.
Last Mile: A New Type of "Consumer" of Logistics Services

What sellers & buyers want:
→ Low cost
→ Fast and reliable

What standards in logistics are:
→ Low cost = slow, potentially unreliable
→ High cost = fast, reliable
Last Mile: Increased Challenges for Logistics Providers

→ An increasing number of small sized parcels
→ Non-standard parcels shapes
→ From/to any place, including locations only accessible by motorbike
→ Lack of storage and sorting centers in urban and rural areas.

Image source, from top left to bottom right: https://gridmotor.motorplus-online.com/, https://www.leskompi.com/, detik.com
Last Mile: Barriers to Technology Adoption and Deployment

What sellers and buyers want:
→ Ability to track and trace

Challenges:
→ Limited use of technology
→ Weak mobile connectivity outside main cities
→ High cost of mobile data
Cash-on-delivery is a new challenge for logistics companies.
How digitalization of logistics can help address these challenges?
Digitalization of logistics by the private sector

Digitalization of logistics helped develop new business models as strategies
→ Example of strategies*:
   - Multi-Party Delivery coordination
   - Multiple Collection and Delivery Points Planning

Examples: Problems solved by digitalization of logistics

→ Real-time tracking and tracing
→ Predictability of costs
→ Reduced costs
→ New opportunities for logistics companies and for shippers (empowering of SMEs, invoice financing)
Innovative strategies by the government

→ The Indonesian government has been promoting digitalization of main ports, including the documentation.

→ Example: Customs Single Window, Trade Single Window, Port Single Window

→ The Indonesian government also has started developing the National Logistics Ecosystem
Mengolaborasikan *Proses dari Kedatangan Kapal / Pesawat* sampai *End Customer*

**HULU**

OUTBOND

DOMESTIC

**HILIR**

FREE TRADE ZONE

INBOUND

*Improving Logistics Performance through Digitalization 2022*
The potential gains from the NLE

→ For importers, exporters, and logistics service providers

→ Lower costs through reducing delays and informal payments
→ Faster clearance and release
→ Predictable application & explanation of rules
→ More effective & efficient deployment of resources
→ Increased transparency
→ Less Processing Steps

→ For Government

→ More effective and efficient deployment of resources
→ Correct (& often increased) revenue yield
→ Improved trader compliance
→ Enhanced security
→ Increased integrity & transparency
→ Improved coordination

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Policy Recommendations from Beyond Unicorns report
Beyond Unicorns: Support the development of logistics

Continue to develop **basic physical infrastructure** to improve connectivity through strengthened and/or rehabilitated infrastructure, leveraging private sector capital and expertise as appropriate through PPPs.

Deepen reforms to **reduce entry barriers to logistics and transportation services** and build long-term investor confidence, to expand warehousing outside of large metropolitan areas.

Continue to **modernize the National Post Service**; standardize addresses and postcodes.
Thank You

FOR MORE INFO, GO TO → www.worldbank.org/digitalindonesia