



E-Commerce: Survey Insights and Its Contribution to North Sumatra's Economy

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Sri Indriyani Siregar

Cross-sector Statistical Analysis Staff
BPS-Statistics North Sumatra Province

at ***Webinar Series on Digitalization in the 2025 SNA***





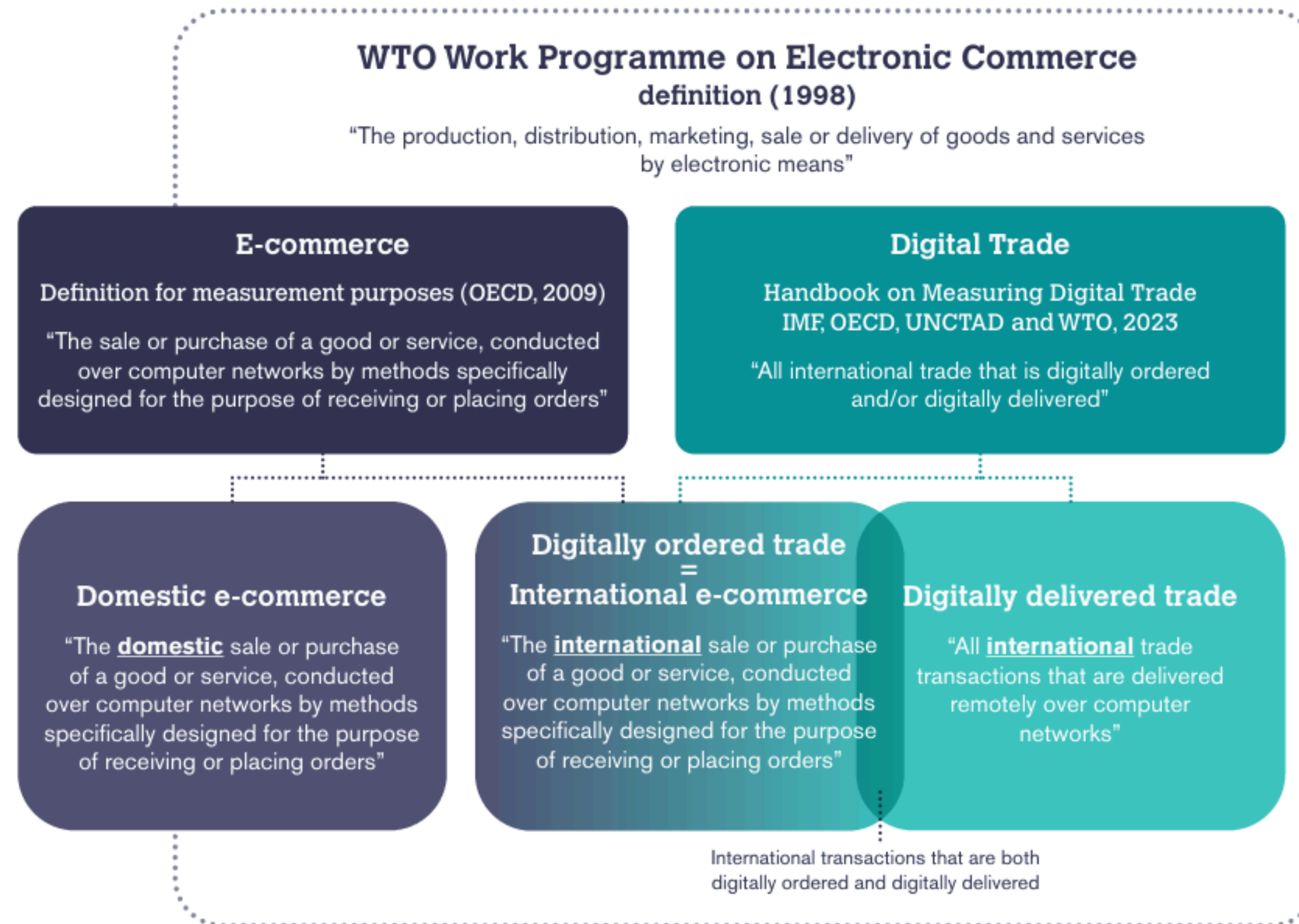
1 Digitalization is a key focus in the **2025 System of National Accounts (SNA)**

2 E-commerce has rapidly expanded in:

- Trade
- Consumption patterns
- Business models

3 Measuring e-commerce is essential for:

- Accurate GDP estimation
- Understanding digital economy



Source: Handbook on Measuring Digital Trade, Second Edition (UNWTO, OECD, IMF)

E-COMMERCE SURVEY IN NORTH SUMATRA



E-Commerce Survey Sample Size



Regency/Municipality		Number of Census Blocks			Number of Businesses		
		Target	Realization	%	Target	Realization	%
(1)		(2)	(3)	(4)	(5)	(6)	(7)
1	Tapanuli Tengah	9	9	100,00	53	53	100,00
2	Labuhan Batu	15	15	100,00	95	95	100,00
3	Asahan	21	21	100,00	134	134	100,00
4	Simalungun	13	13	100,00	86	86	100,00
5	Karo	14	14	100,00	73	73	100,00
6	Deliserdang	21	21	100,00	169	169	100,00
7	Langkat	10	10	100,00	118	118	100,00
8	Samosir	10	10	100,00	61	61	100,00
9	Serdang Bedagai	16	16	100,00	87	87	100,00
10	Labuhan Batu Utara	9	9	100,00	58	58	100,00
11	Tanjungbalai	9	9	100,00	59	59	100,00
12	Tebing Tinggi	11	11	100,00	71	71	100,00
13	Medan	49	49	100,00	320	320	100,00
14	Padang Sidempuan	12	12	100,00	76	76	100,00
TOTAL		219	219	100,00	1.460	1.460	100,00

The sample calculation was based on the estimated number of e-commerce businesses obtained from the 2024 E-Commerce Survey. The minimum number of business samples was determined using the targeted Relative Standard Error (RSE) formula.

The 2025 E-Commerce Survey in **Indonesia** covers **40,369** business samples, with **North Sumatra** Province ranking seventh for the largest sample size at **1,460** samples.



Allocation of E-Commerce Business Samples



Regency/Municipality

The allocation of business samples is calculated **after the listing** of E-commerce units in the selected census blocks in each province has been completed.

The allocation of business samples is carried out using a **proportional allocation** method based on the square root of the number of E-commerce businesses identified from the listing of selected census blocks.



Note: The allocation of business samples and the selection of E-commerce business samples will be carried out with the assistance of a **program/application** after the listing has been completed.

Census Blocks

The target sample of E-commerce businesses in each selected regency/city is allocated to each selected census block. The allocation of E-commerce business samples in each selected census block within each regency/city is calculated using a program/application based on the following formula.

$$m_{jhi}^t = \frac{\sqrt{M_{jhi}^t}}{\sum_{i=1}^{n_j} \sqrt{M_{jhi}^t}} \times m_j$$

Notes:

m_{jhi}^t : The allocation of E-commerce business samples in the i-th census block ($i = 1, 2, \dots, n_j$) in the j-th regency/city within the h-th stratum

M_{jhi}^t : The number of E-commerce businesses identified from the listing in the i-th census block ($i = 1, 2, \dots, n_j$) in the j-th regency/city within the h-th stratum

m_j : The target sample of E-commerce businesses in the j-th regency/city

Measuring Output – 2025 E-Commerce Survey



Number of e-commerce businesses



Types of goods/services offered online



Payment Method



Shipping Method



Characteristics of e-commerce businesses:

- Business activity category
- Year Established
- Commencement year of conducting online transactions
- Ownership of financial statements
- Computer ownership
- Purpose of internet usage

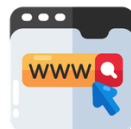


Business Owner Characteristics:

- Education
- Age
- Gender



Employment Profile



Platforms Used for E-commerce Sales



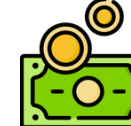
ICT-related Training



Distribution pattern of online sales transactions



Challenges in E-commerce Business



Value of E-commerce Transactions




Value of International E-commerce Transactions

Technical Notes:



**Output Level:
Province**



 “During, we identified several anomalies, including mismatched identification data, incomplete responses to the survey, and inconsistencies between sales and cost components.”

1. Mismatch Data

The data are inconsistent between:

- listing vs survey results
- or across variables

“We found inconsistencies between identification data and survey responses, indicating potential misreporting or incorrect matching during data collection.”

2. Missing Data

- There are empty columns
 - The enumerator has not yet filled in the verification column
- “Some key variables were missing, particularly those related to e-commerce transactions and cost structures.”

Field Challenges (Root Cause)

1. The Respondent Doesn't Understand The Concept of E-commerce

“Many respondents do not recognize their activities as e-commerce, especially those using social media platforms.”

2. There's no separate bookkeeping

Online vs offline are not separated

“Businesses often do not separate online and offline transactions in their records.”

3. The enumerator did not probe sufficiently

The questions were not detailed -> Skip probing

“Enumerator probing was sometimes insufficient, especially in capturing cost components.”

4. Sensitive Data (Refused to Answer)

- Revenue
- Expenses

“Some respondents were reluctant to disclose financial information.”

5. Complexity of Digital Business Models

Hybrid:

- offline + online
- marketplace + direct selling

“Hybrid business models create challenges in classification and measurement.”

Corrective **Actions** Taken

1. Data Validation Process

- Cross-check between variables
- Matching with the listing

2. Re-contact Responden

- Clarification of anomalous data

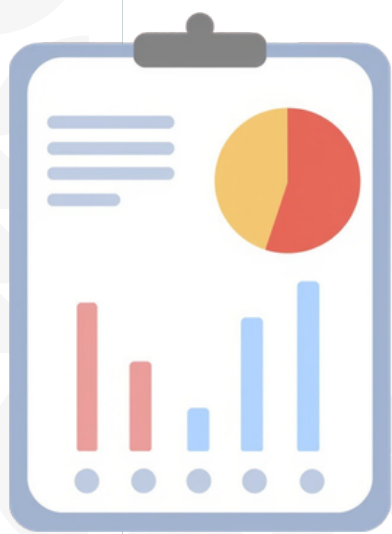
3. Enumerator Training

- Focus: Probing techniques and the concept of e-commerce

4. Strengthening monitoring

- Field supervision
- QC real-time

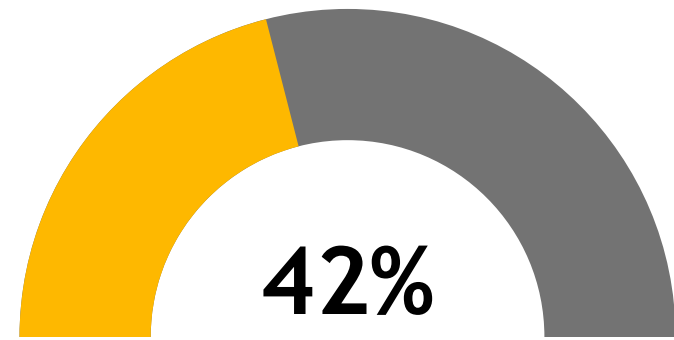
E-COMMERCE CONTRIBUTION TO THE ECONOMY OF NORTH SUMATRA



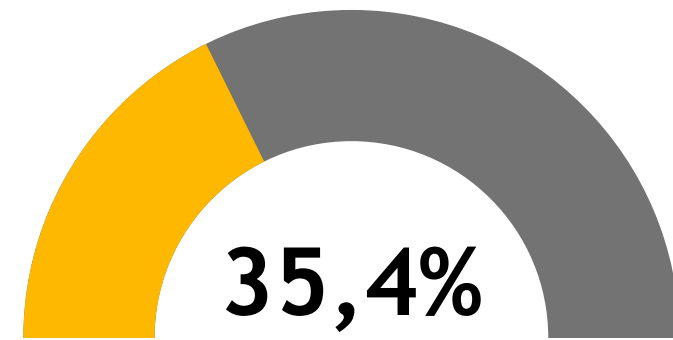
E-Commerce and Business Owners Characteristics



Indonesia



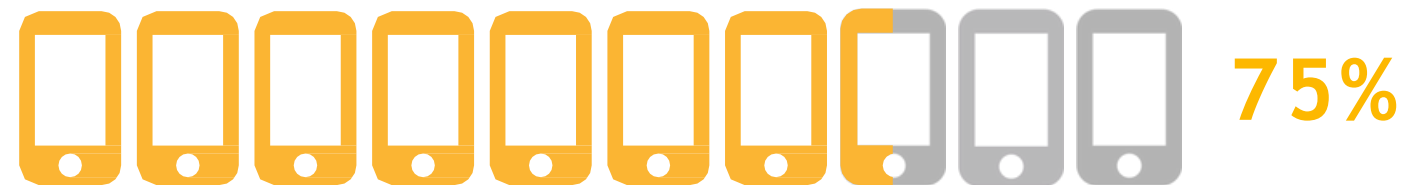
North Sumatra



E-commerce businesses in North Sumatra were 35.4% in 2024, of which 64.6% chose to continue selling offline. The proportion of e-commerce businesses in North Sumatra declined compared to 2023, when it stood at 42.8%.

Reasons for Not Conducting Online Transactions

Prefer to Sell Offline



Lack of Knowledge/Skills



Characteristics of E-commerce Business Owners

North Sumatra, 2024



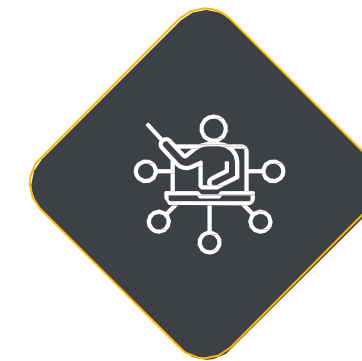
42.67%
30-44 years old
(Gen Y - Millennials)



53.63%
Male



60.03%
Senior High School/Vocational High School or Equivalent



2.72%
Have Received Training in IT Utilization

Indonesia

42.23%

55.53%

50.72%

3.56%

- Female entrepreneurs increased by 2.66 percentage points from the previous year. E-commerce provides flexible opportunities.
- Education enhances literacy, analytical capability, and confidence in using information technology for business management.

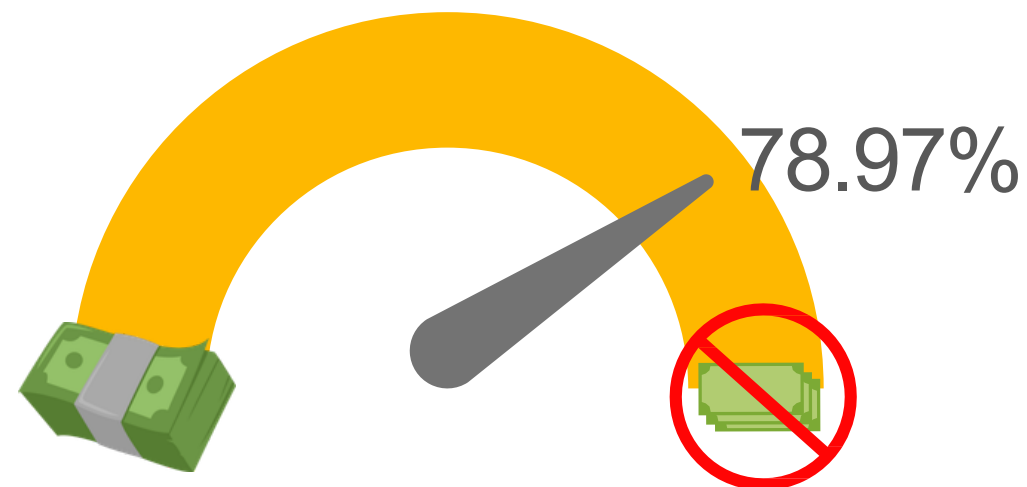
Characteristics of Workers

E-commerce workers in North Sumatra is dominated by male workers and has the status of paid workers.

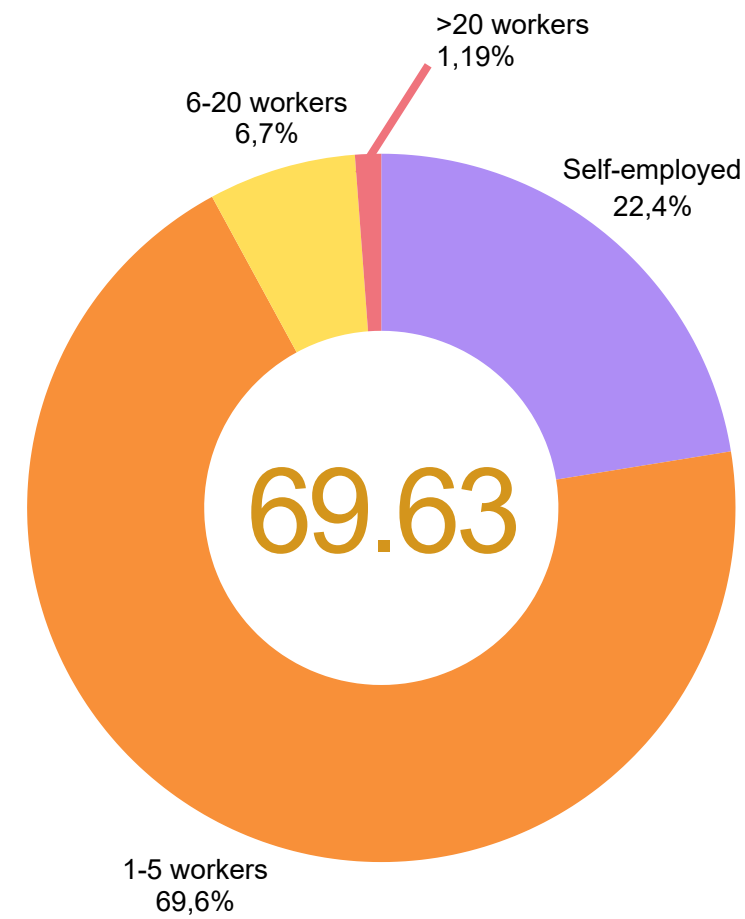
Gender



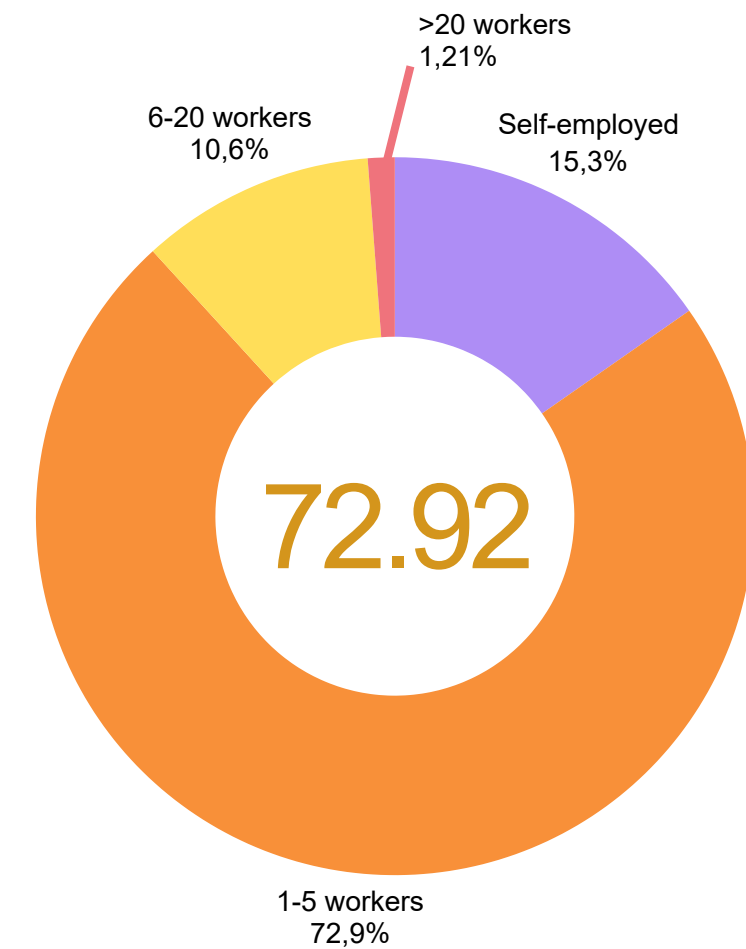
Type of Worker



Percentage of E-Commerce Business by Workers Category

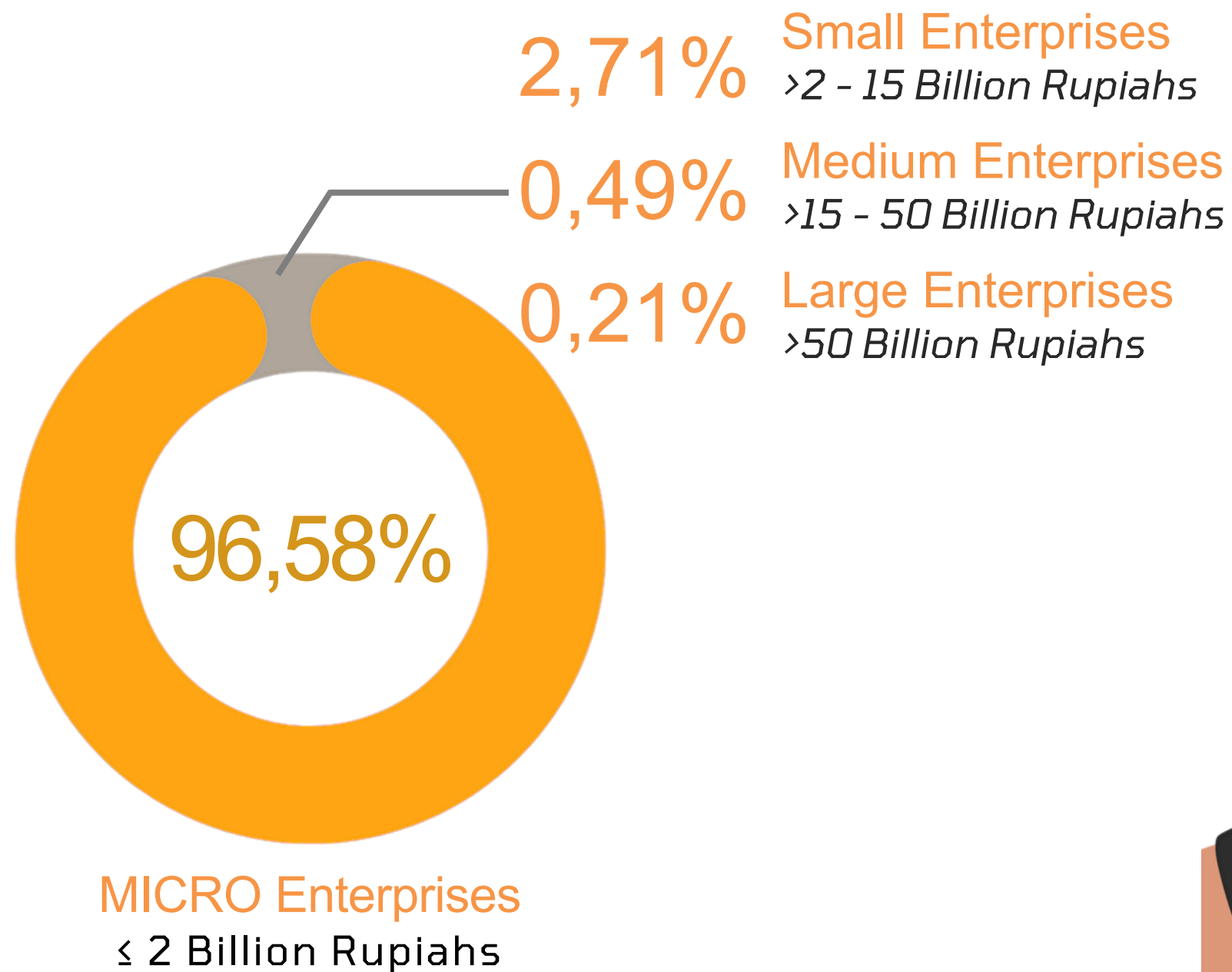


Indonesia



North Sumatra

Sales Media & Income Category



Digital Platform

The variety of sales media is becoming increasingly widespread with the advancement of information technology



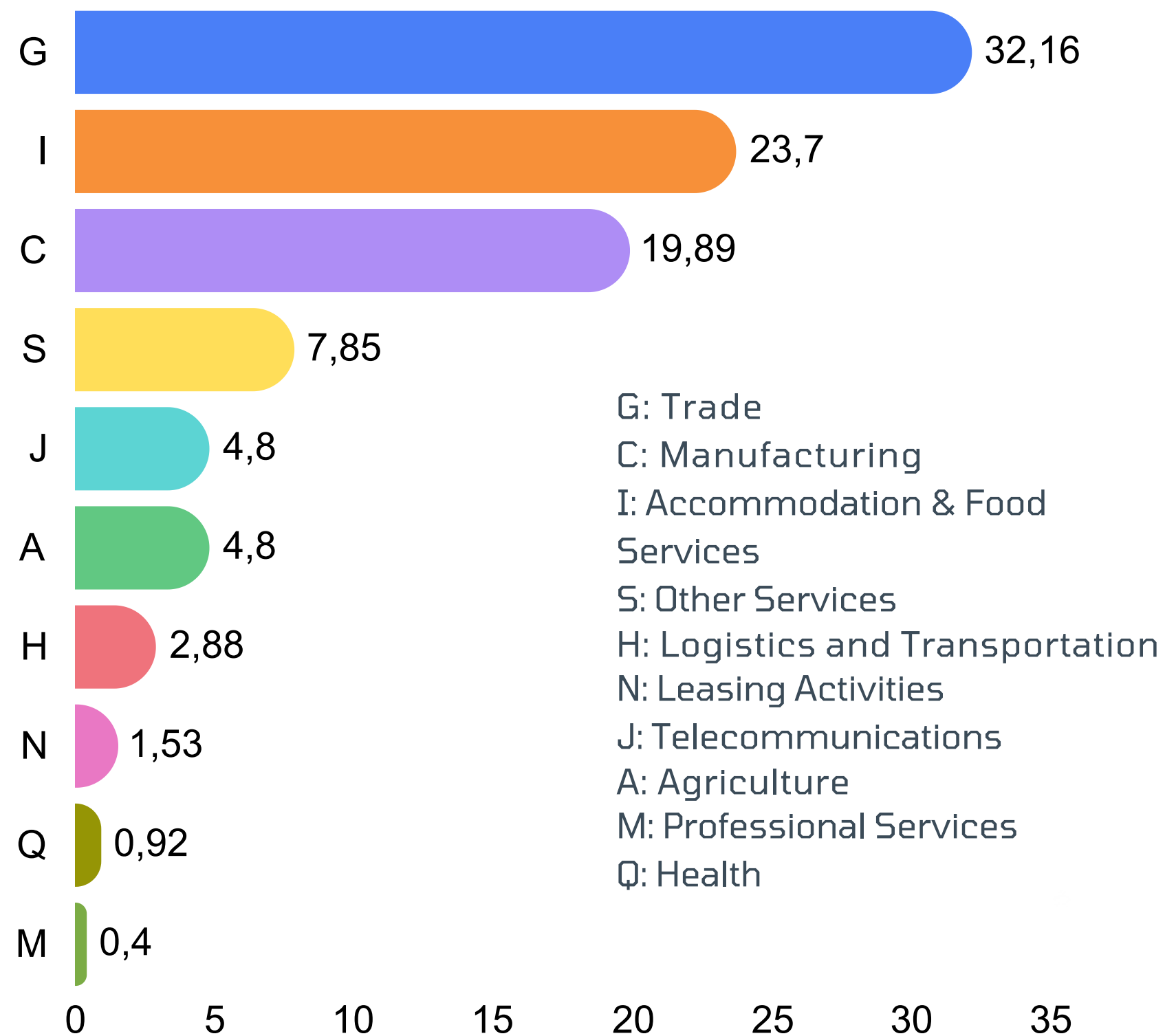
- Instan Message
WhatsApp/Line/Telegram/dll
- Social Media
Instagram/ Facebook/dll
- Marketplace
Shopee/Tokopedia/Gojek/dll

	Indonesia	North Sumatra
Instan Message WhatsApp/Line/Telegram/dll	94,76%	96,71%
Social Media Instagram/ Facebook/dll	29,66%	37,05%
Marketplace Shopee/Tokopedia/Gojek/dll	17,23%	11,20%

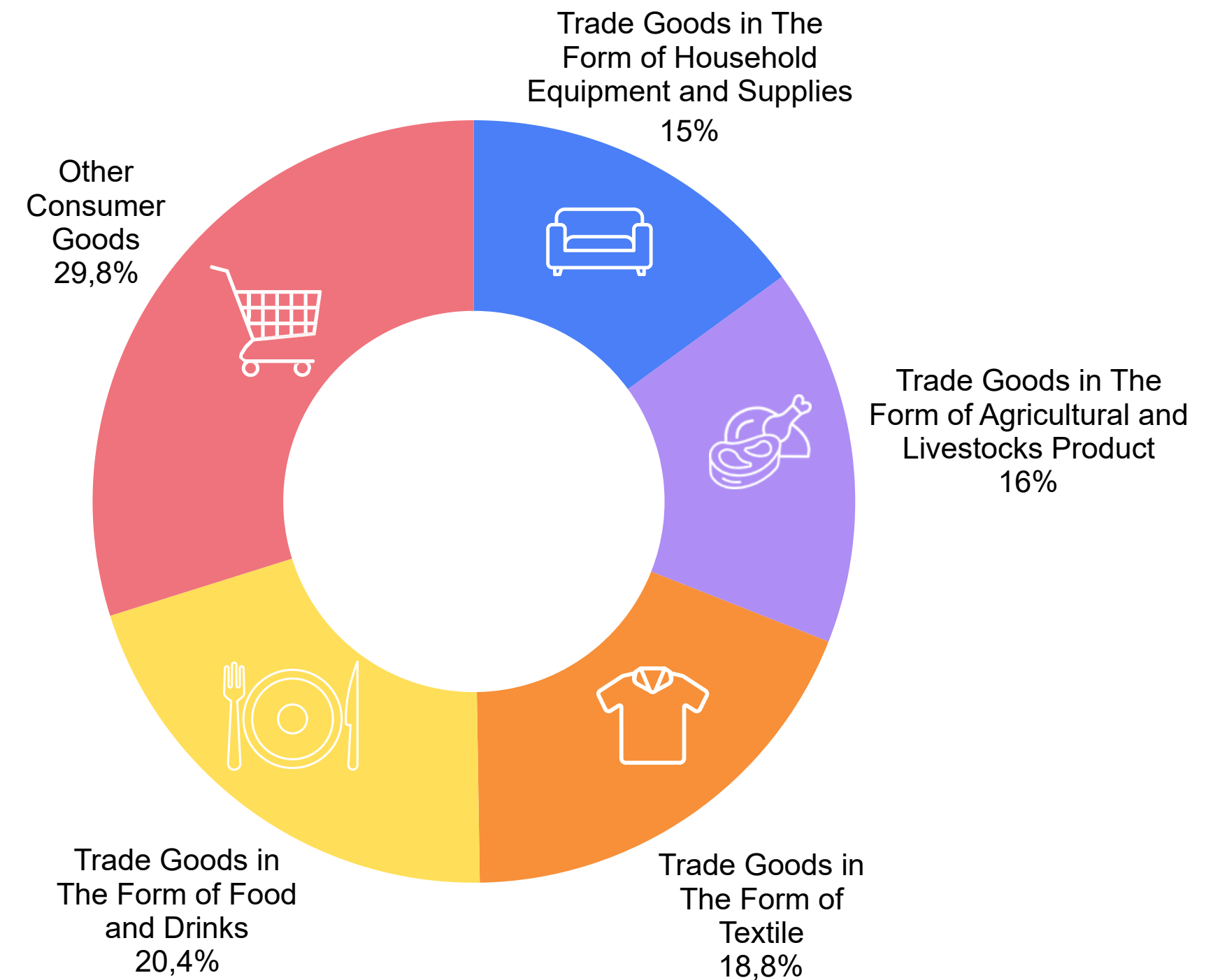
Note: multiple answer

Business Activity Category

Business Activity Category



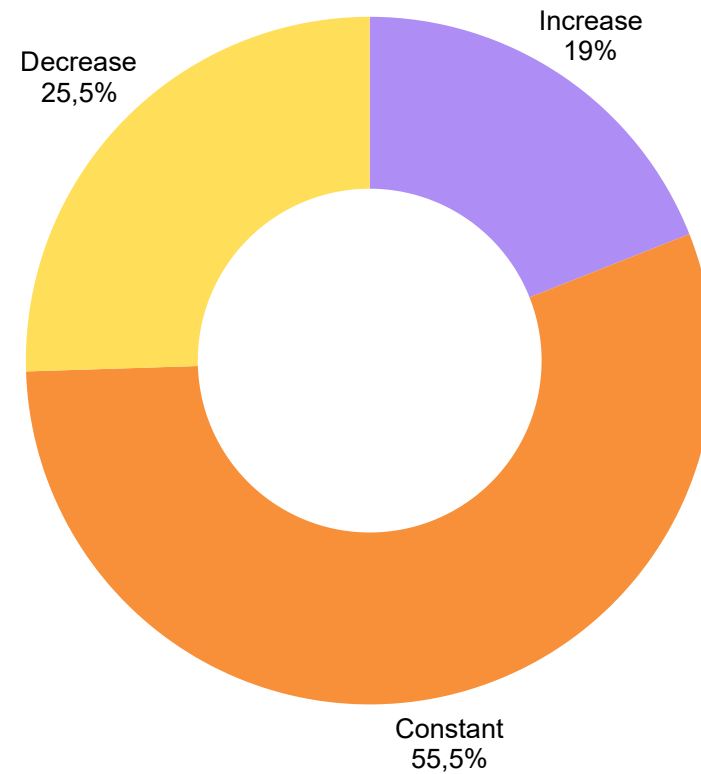
Types of Goods Sold (Wholesale & Retail Trade)



Business Revenue & Customer Type

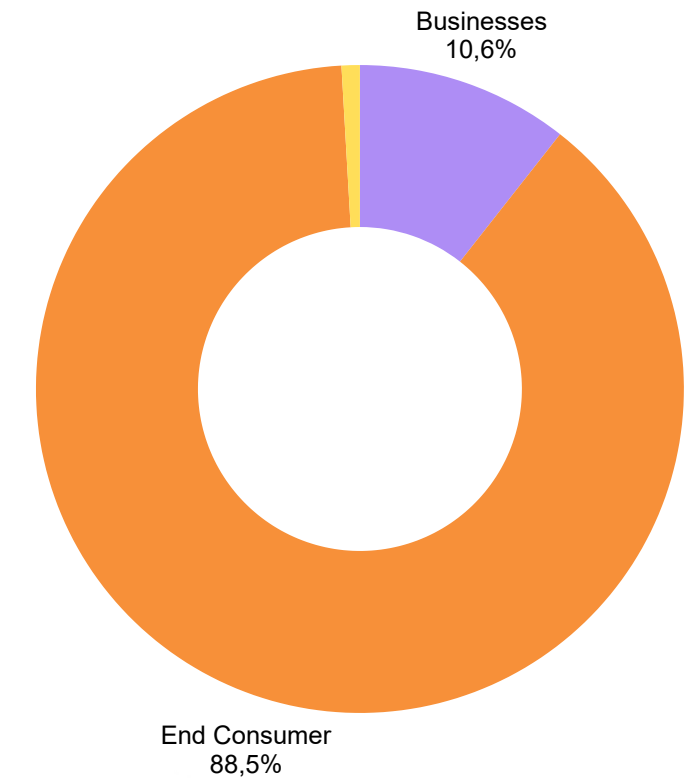
Changes in Online Business Revenue Compared to 2023

Indonesia

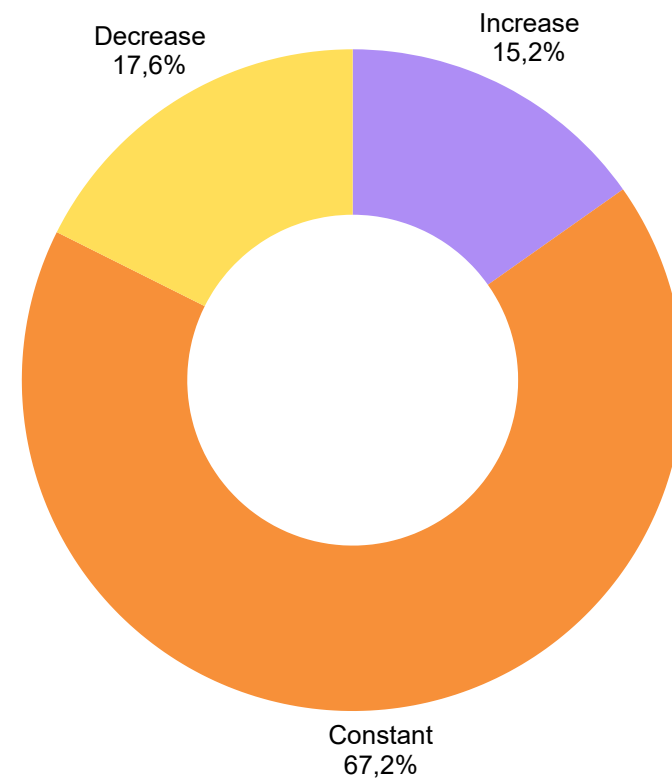


Main Customer Type

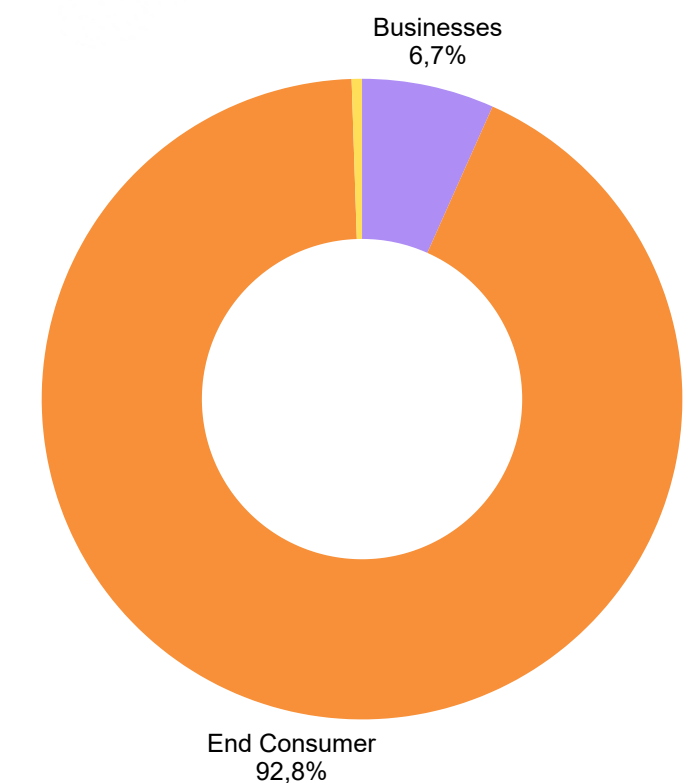
Indonesia



North Sumatra

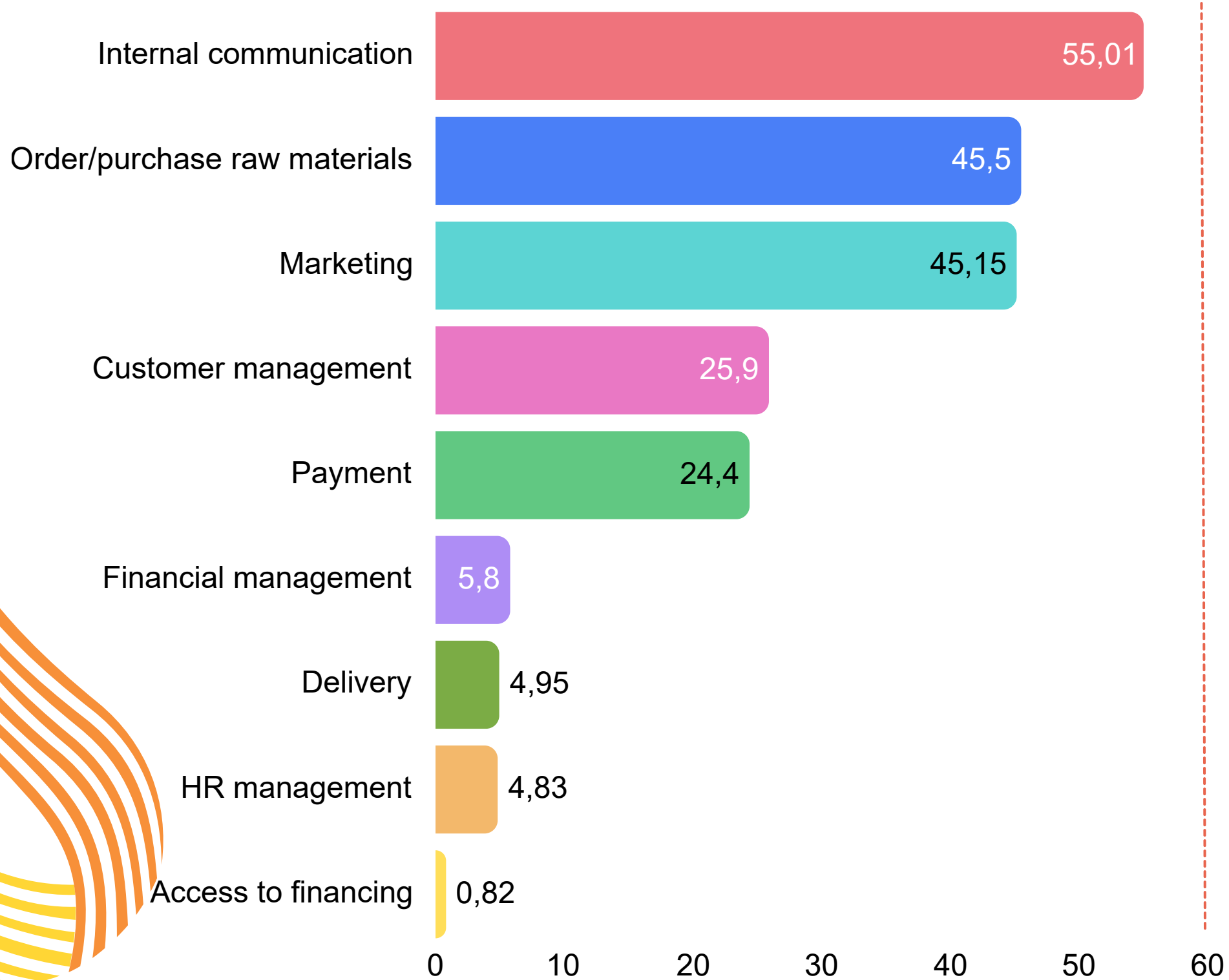


North Sumatra

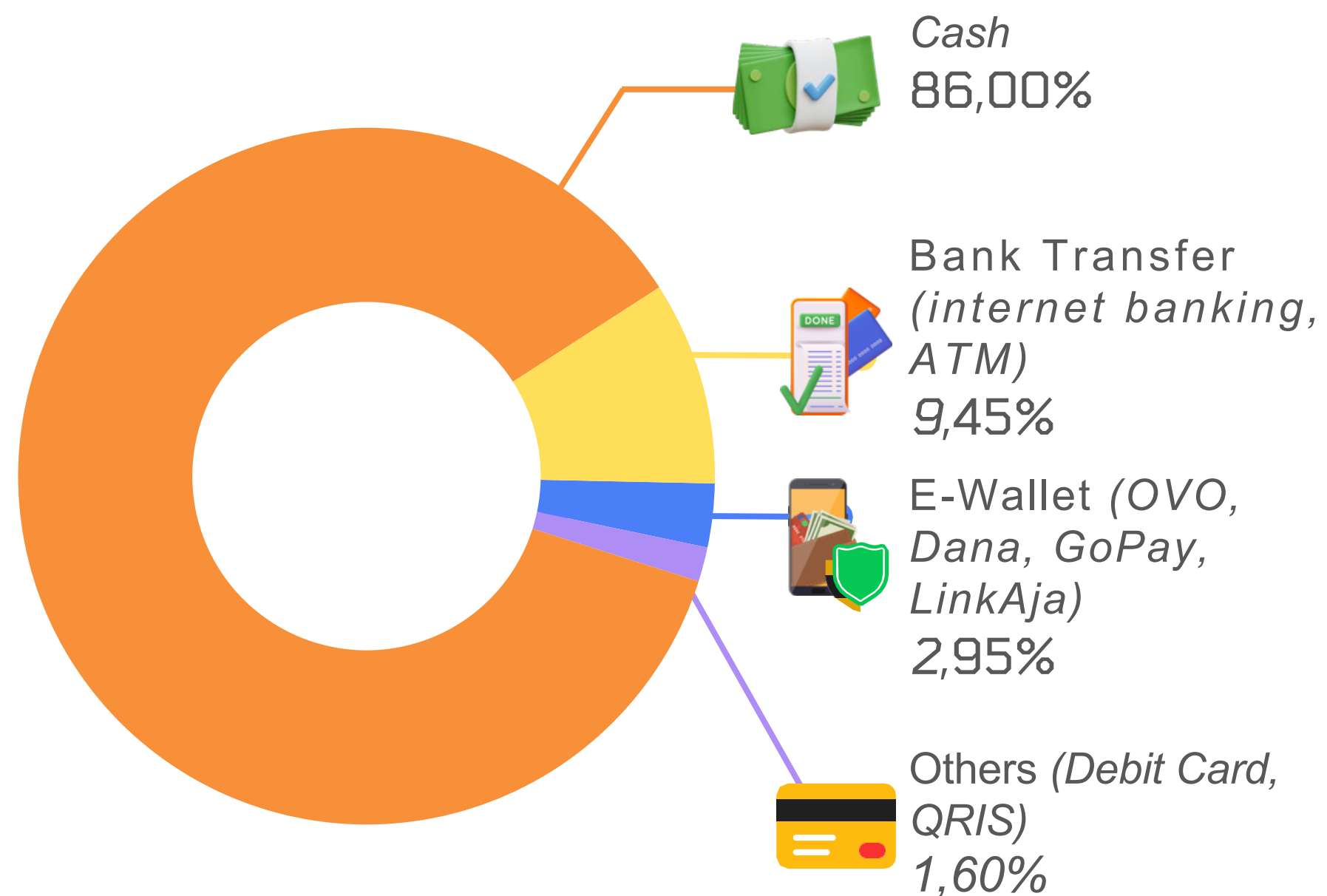


Internet Utilization & Payment Method

Internet Utilization by E-Commerce Businesses



Main Payment Method



Key Challenges

Based on the e-commerce survey, the main challenges faced by business actors in North Sumatra in conducting online transactions during 2024 have been identified.



Lack of Funding
39,67%

Lack of Skilled Workers
18,27%

Product Marketing
Constrains
17,08%

Limited Delivery
Services
9,17%

Recommendations



For Business Actors

- Leverage consumers online shopping behavior.
- Study the types of products that are commonly purchased online by the local community
- Optimize marketing through social media and marketplaces.
- Improve product quality and customer service



For the Government & Regulators

- Encourage IT training for MSMEs
- Provide incentives or easier access to credit for MSMEs
- Establish consumer protection regulations



For Consumers

- Support local products.
- Be wise in choosing trusted platforms and products.



THANK YOU!



Landing Page
2026 Economic Census

<https://sensus.bps.go.id/se2026/>