



Virtual Event 15-18 June
2020
**2020 Asia-Pacific
Statistics Week**

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Calculating of Trade and Transport Margins in Pattern of Trade Distribution

Assuring quality and instilling trust in statistics

Action Area D. Assuring Quality and Instilling Trust in Statistics (SB3)

Novel approaches to assuring quality and instilling trust in official statistics

Presenter:

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Statistics Indonesia

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Introduction

2008 SNA

1. Trade margin: difference between the actual price & the price that would have to be paid by the distributor
2. Transport margin: costs paid separately by the buyer in retrieving goods at the specified time and location

But,

- The problem that arises is the calculation of trade and transport margins (TTM) for each commodity is not easy because each commodity has different margins while the transportation costs incurred together in one transportation.



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Assumption

**The selling price for good include all costs incurred
by traders to obtain the goods**

So:

- TTM can also be defined as compensation for the trader as a supplier of goods which is the difference between the sales value with the purchase value.



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Problem

How to calculate the trade and transport margin for each commodity ?

When:

- Each commodity has different margins while the transportation cost incurred together in one transportation
- Some merchants provide delivery facilities to consumers → consumers price include transportation cost



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Methodology

- From survey of the distribution patterns of strategic commodity trade conducted by the Central Bureau Of Statistics (BPS), Statistics Indonesia
- Period: 2018
- The indicators used are **the percentage of sales volume to trade businesses carried out in the province, the percentage of purchase volume from trading businesses, the purchase price of goods sold, the price of goods sold, and the volume of goods sold out.**



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Results

The following are the steps for calculating TTM based on a survey of trade distribution pattern:

1. turning goods volume units into standard units
2. Calculate the volume of goods sold.
3. To make an average value of the purchase price of merchandise sold.
4. To make an average value of the sale price of the merchandise sold within the province.
5. Counting the percentage of TTM of each respondent
6. Count percentage of TTM from respondents who are members of the k-th group of business actors

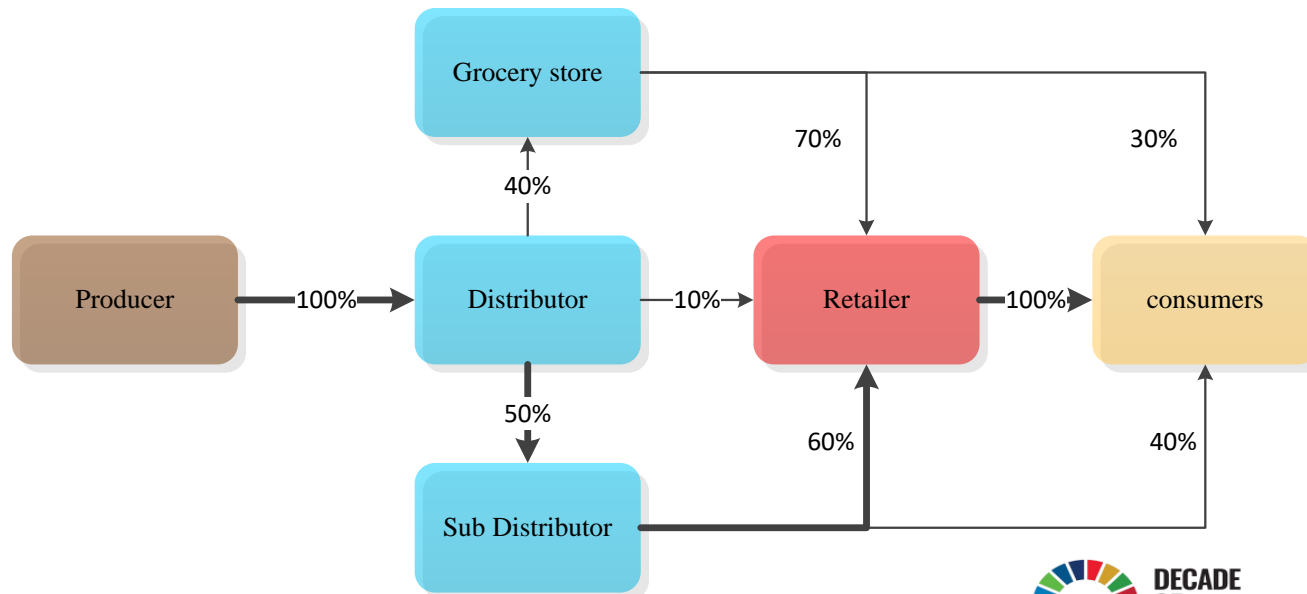




Results (2)

The following are the steps for calculating TTM based on a survey of trade distribution pattern:

7. to make distribution patterns from producers to consumers based on the percentage of the volume of sales of goods addressed to the i-th business actor. Example:

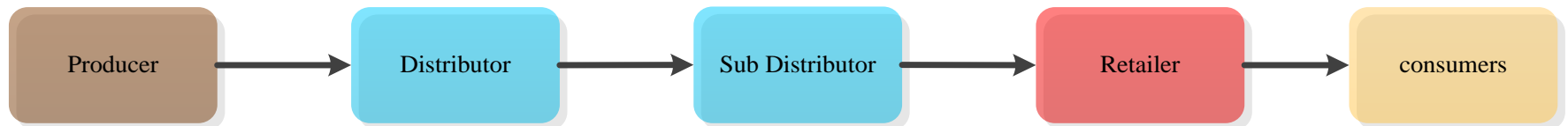




Results (3)

The following are the steps for calculating TTM based on a survey of trade distribution pattern:

8. to make the **main pattern** of distribution of strategic commodity merchandise. The **assumption used is that the main pattern will be through the biggest volume of sales.**

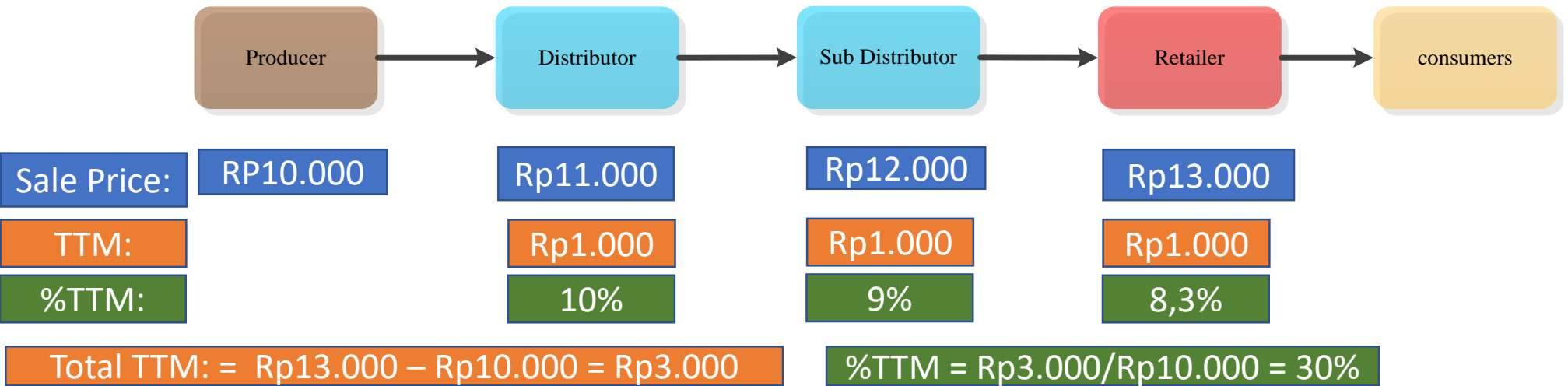




Results (4)

The following are the steps for calculating TTM based on a survey of trade distribution pattern:

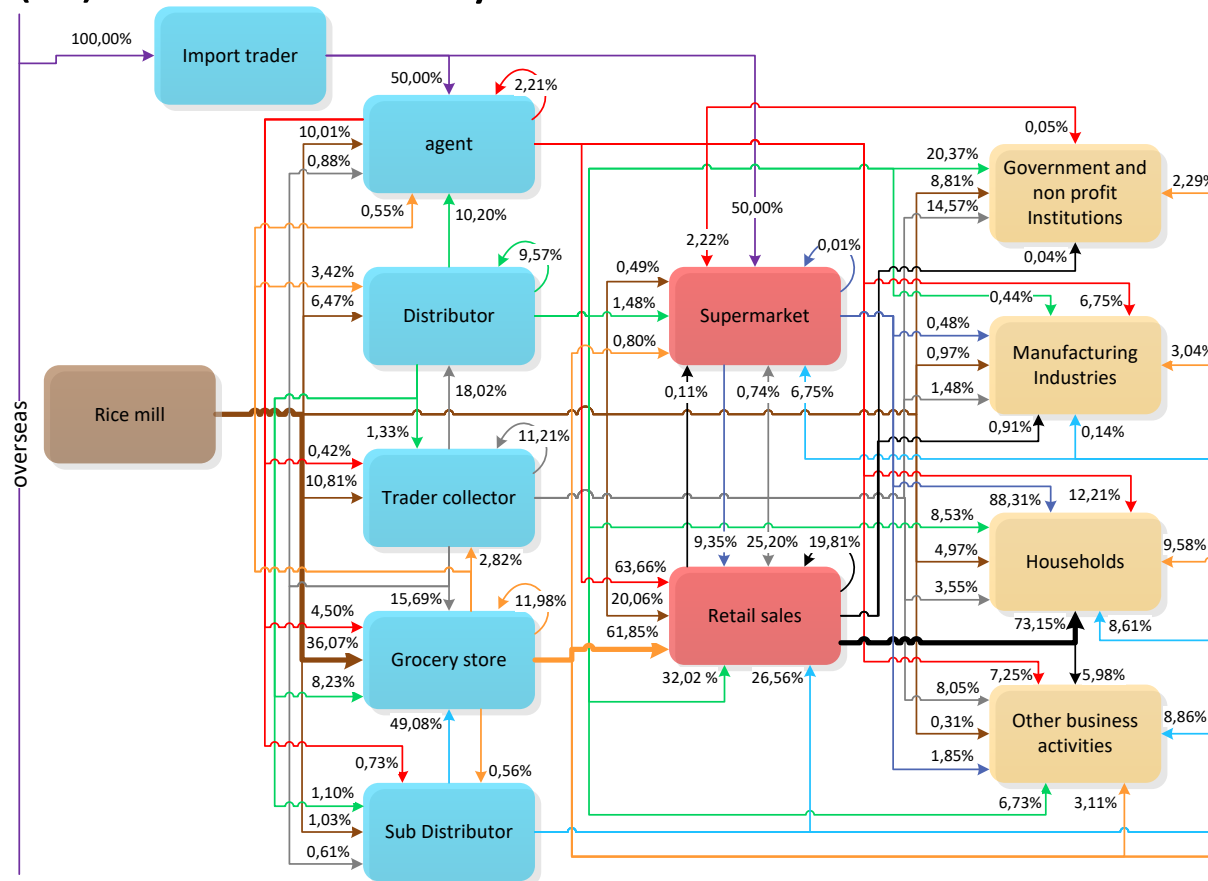
- from the main pattern, TTM calculations are carried out from producers to consumers. Example:



$$\%TTM = \left(\prod_{k=1}^n (1 + \%TTM_k) - 1 \right) \times 100\% = \left((1 + 10\%)(1 + 9\%)(1 + 8,3\%) - 1 \right) \times 100\% = 30\%$$



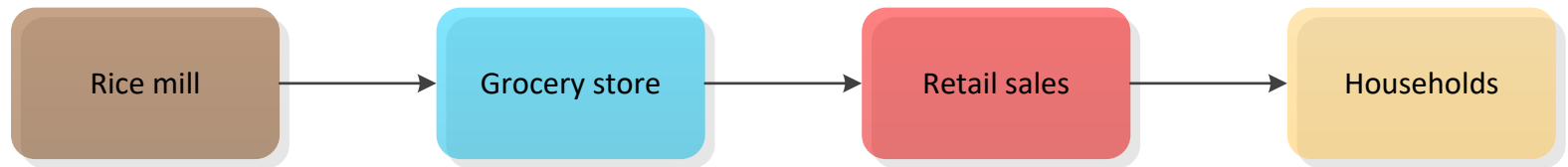
Results (5): case study



Distribution Patterns Of Rice Commodities, In Indonesia 2018



Results (6): case study



The Main Pattern Of Rice Commodity Distribution, In Indonesia 2018

%TTM:

7.72%

12,10%

$$\begin{aligned} \%TTM &= \left(\prod_{k=1}^n (1 + \%TTM_k) - 1 \right) \times 100\% \\ &= \left(((1 + 7.72\%)(1 + 12.10\%)) - 1 \right) \times 100\% = \mathbf{20,83\%} \end{aligned}$$



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Conclusion

- The study offers an alternative calculation of total TTM charged to end consumers.
- By using the **assumption that prices received by consumers** (both end consumers and intermediary traders) include transportation costs, then the calculation of the value of trade and transportation margins from upstream to downstream of the distribution patterns of trading certain commodities can be done.



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Discussion

- We are very receptive to feedback regarding what we have done. mainly related to the **assumptions** that have been used.
- **assumption that prices received by consumers?**
- **assumption forming the main pattern based on the biggest volume of sales?**
- as learning material for us, how to calculate TTM in your country?



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Thank You Terima Kasih Khop Khun Kab



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