FMI Fresh Foods Wastage Benchmarking Study

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Executive Insights

Executive insights

- Fresh food sales through the modern retail trade remain undeveloped in all South-East Asian countries.
  - Shoppers' fresh food needs are still largely met by traditional wet markets.
- Shopper trust in the freshness of the product available in the modern trade remains an issue that the modern trade needs to overcome.
- Fresh food wastage in South-East Asia is high across all categories of fresh product.
- Meat has the lowest level of waste at 6%.
  - Hypermarkets generally have lower waste on meat.
  - In Thailand the level of waste for meat was significantly lower at only 4%.
    - A possible reason for this is the more limited range and different cuts of meat available compared to other countries.
- Seafood wastage was between 8-9%.
  - No significant difference between the countries.
  - No difference between supermarkets and hypermarkets

Executive insights

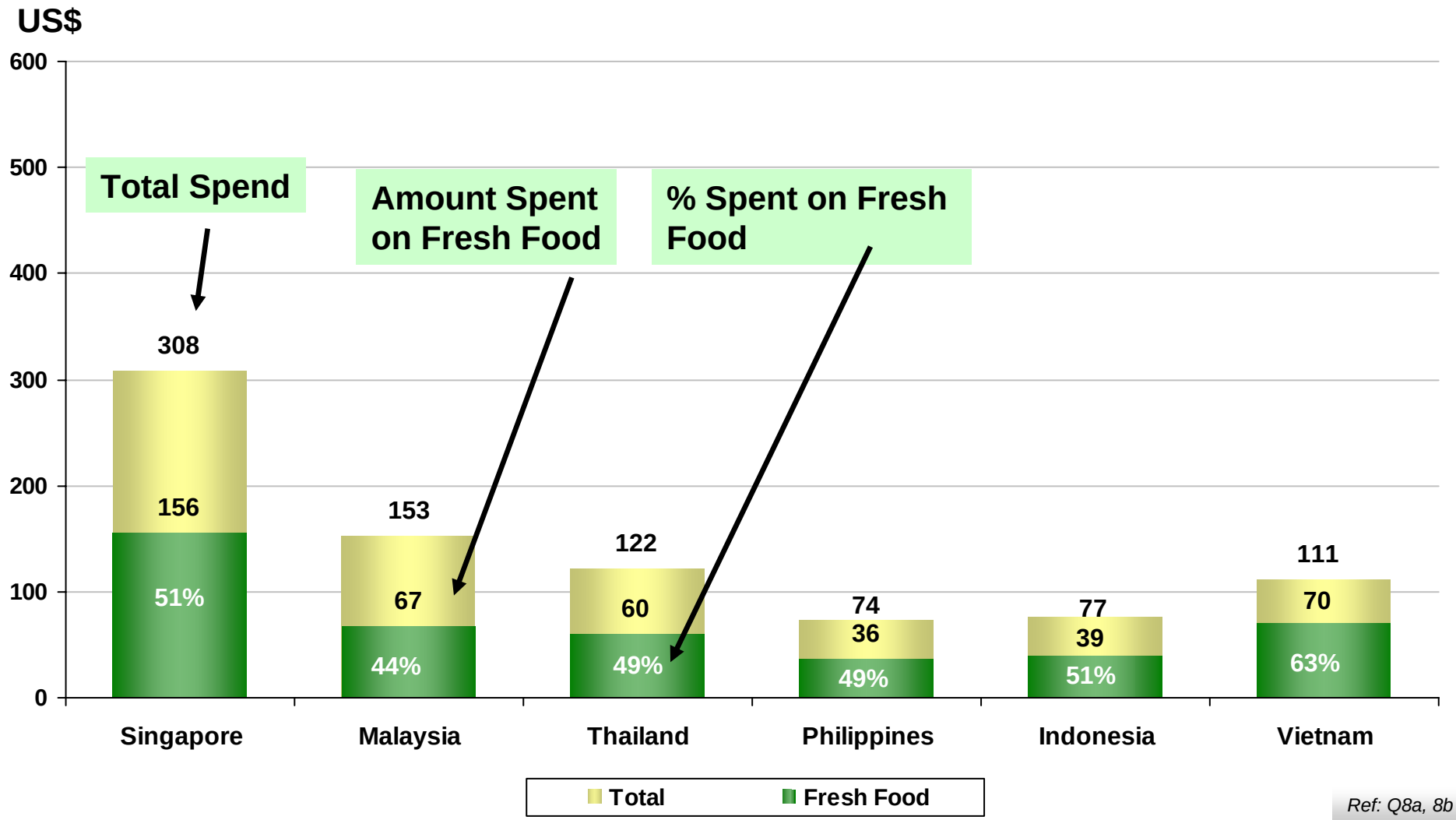
- Wastage levels were highest for fruit and vegetables at 10%.
  - Supermarket levels of waste were 3% lower than hypermarkets.
    - The higher waste for hypermarkets is probably driven by large amount of space devoted to fruit and vegetables compared to the turnover.
  - There was no significant difference by country overall.
  - Waste levels were clearly effected by the wet season.
    - In both Thailand and Indonesia there was an increase in waste of between 2-4% during the respective wet seasons.
- There are many issues behind the high levels of waste.
- Key reasons suggested by the participating retailers include:
  - Staff experience and training
  - Climate, generally high temperatures and seasonal impact
  - Logistics and transportation issues
    - Quality of cold chain plus the length of journey
  - Imported products
  - High level of space allocation compared to relatively low turnover

Fresh food in Asia

Fresh food shopping in Asia

- Fresh food typically accounts for 50% of a shopper's total grocery spend in most Asian countries.
- Most shoppers still use traditional wet markets as their main source of fresh food.
- Shoppers are starting to buy fresh food in the modern trade but it is very much a secondary outlet.
  - In most countries less than 15% use the modern trade as their main place to buy fresh food.
    - Malaysia is slightly higher at 20-25%.
    - Indonesia is lower at less than 5% for all categories with the exception of fruit.

Average spend per month on groceries (US$)

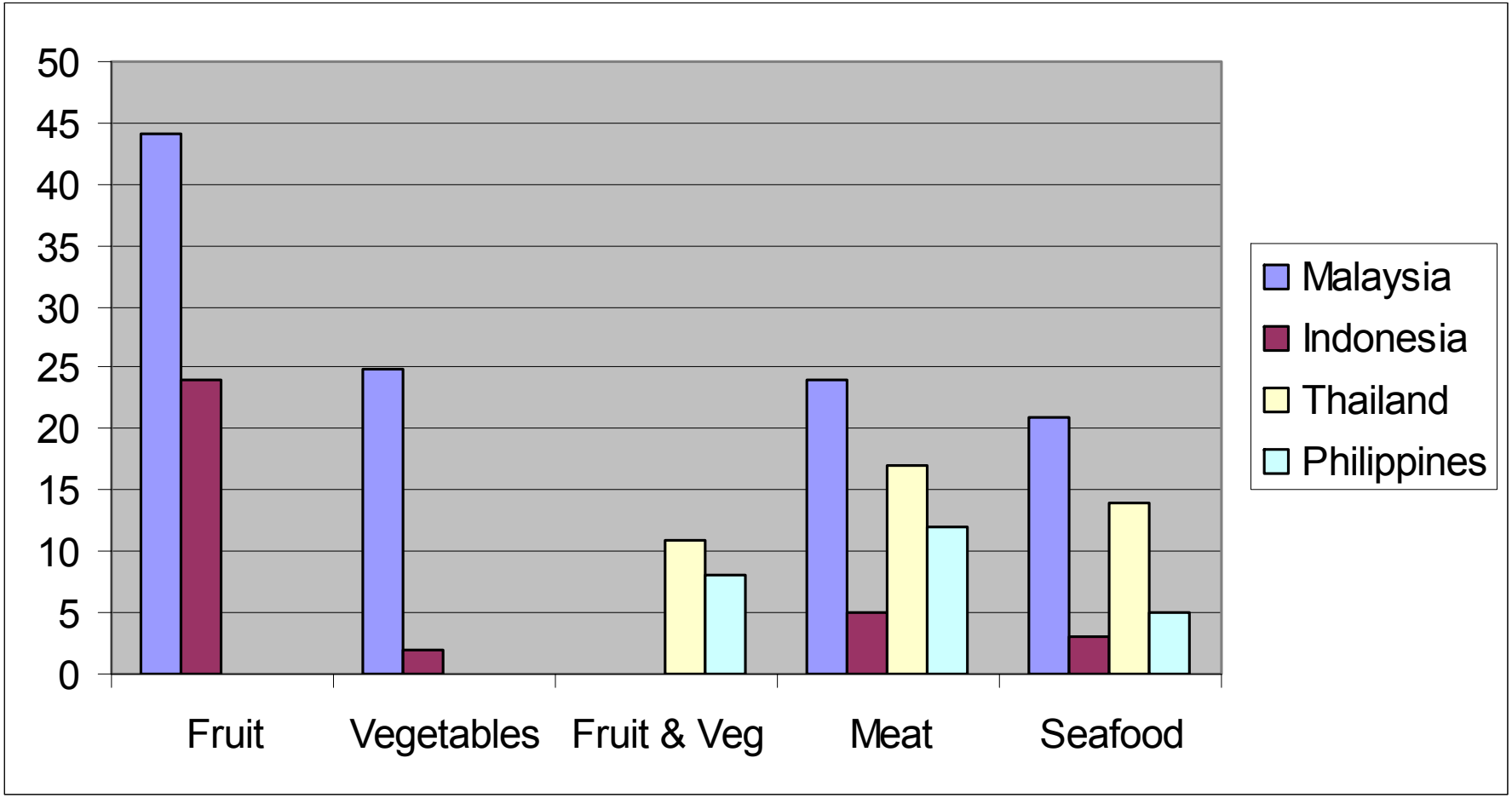


Ref: Q8a, 8b

Base: All Household Shoppers

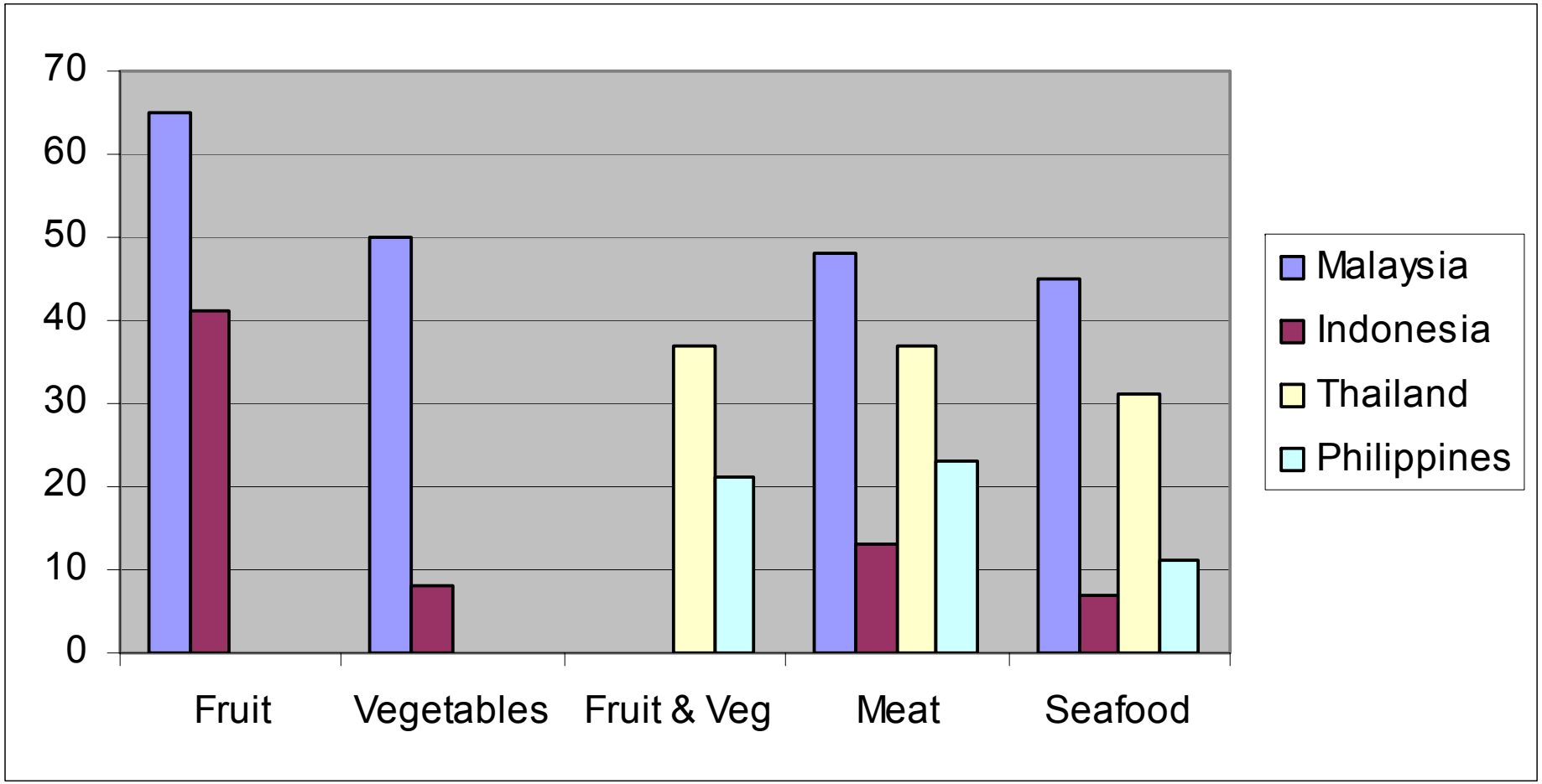
Typically less than 15% of shoppers use the modern trade as their main destination for fresh food.

% of households using the modern trade as main place to buy



More shoppers use the modern trade as a secondary outlet for fresh – particularly in Malaysia.

% of households using the modern trade to regularly buy

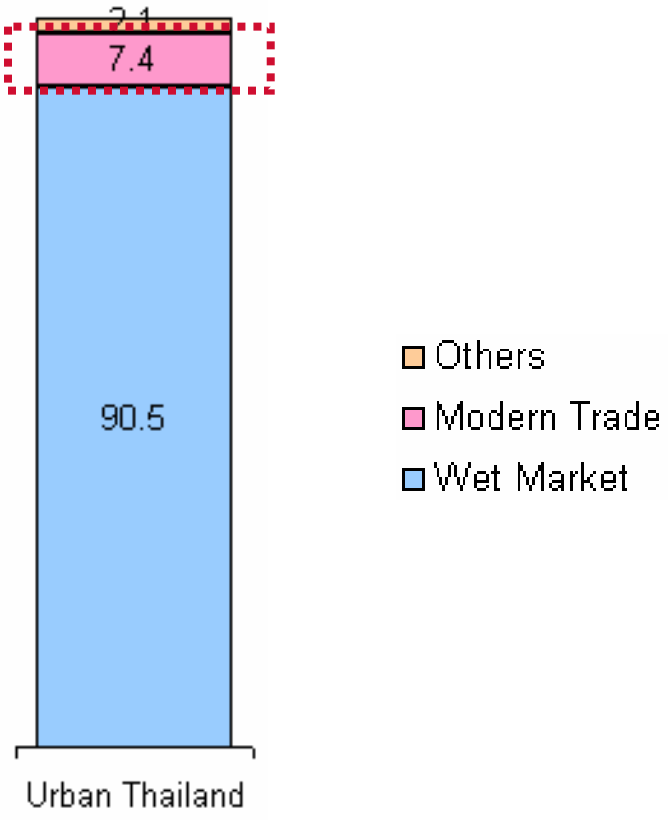


Fresh food shopping in Thailand

- The modern self-service grocery trade in urban Thailand still has a huge opportunity to develop fresh food sales.
  - Currently they hold less than 8% of total sales.
- Traditional fresh food shoppers have different shopping habits from modern trade shoppers.
  - Shop more frequently
  - Earlier in the day
  - Buy smaller quantities
- Use of wet markets is driven by some key perceptions:
  - Lower price and the ability to bargain
  - Convenient location
  - Freshness of product
    - *Perceived to be better due to the higher turnover of product*

In urban Thailand currently less than 8% of fresh food sales are accounted for by the modern trade.

Fresh food sales by channel in urban Thailand

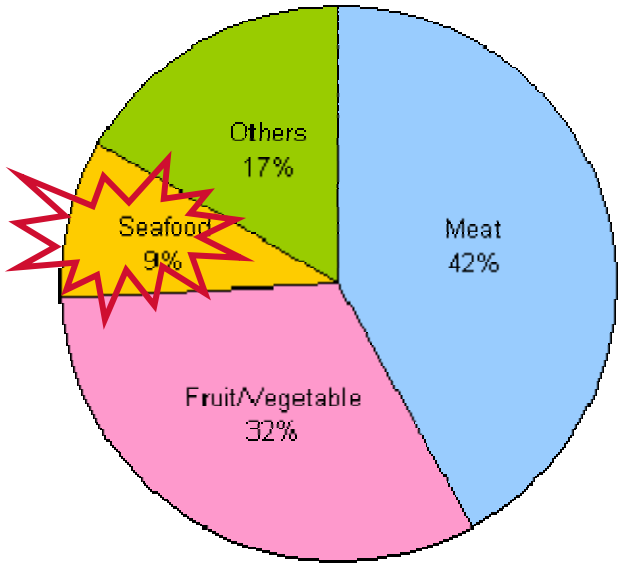


•***Urban Thailand Data from ACNielsen HOMESCAN***

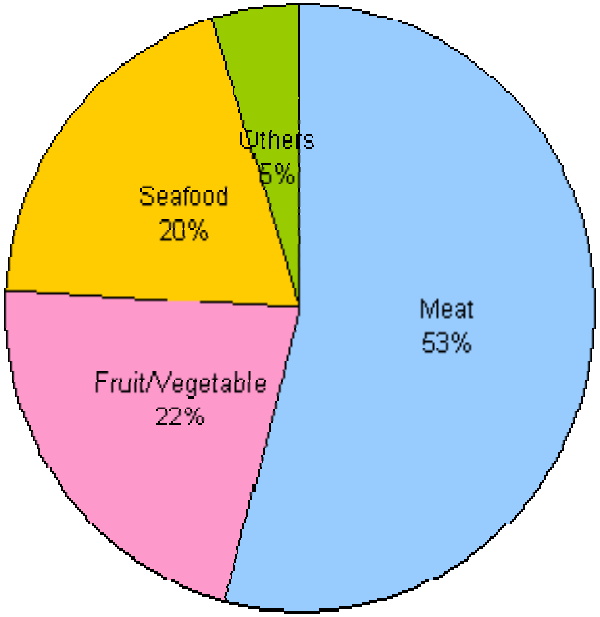
Comparing the split of sales by trade channel we see that the modern trade under-performs significantly on seafood.

Fresh food sales split by category

Modern trade



Wet markets in Bangkok



- ***Modern trade based on scanning sales data***
- ***Wet markets in Bangkok derived from manual field-work survey***

From qualitative research we found shopping behaviour differs between wet market and modern trade fresh food shoppers.

	Wet market	Modern trade
How often?	•majority went ***every day*** → bought in ***small quantities***	•went ***once or twice a week*** on weekends → bought in ***bigger amounts and stocked***
What time?	•majority went in the ***early hours of the morning*** (6-8 AM)	•***early afternoons or evenings***
How much time?	•spent about 20-30 minutes per trip → ***short trip***	•spent minimum 1 hour and lasted up to a couple hours → ***long trip***
Who to go with?	•***alone***	•with ***kids or family*** → one stop shopping
Cooking meals?	•***breakfast and dinner***	•***dinner***
Decision of menus?	•involving ***family members*** → asking on a daily basis	•most of the time decided by ***the shoppers themselves***

The issue of rapid turnover of products/freshness is an important reason for why wet market shoppers buy.

Wet market	Modern trade
•***Freshness*** -**Newness of goods → daily turnover of fresh goods** -Stored foods under cooling section were not fresh	•***Freshness & Hygienic*** -Cleanly kept foods were fresh -**Believed in expiry date on pack as benchmark guarantee of freshness** -Chemical free goods
•***Cheaper price*** and ability to bargain	•***Acceptable price*** → willing to pay for clean food, good ambience, convenience from one stop shopping
•***Close to home*** (5-10 minutes walk)	•***Close to home*** (10-20 minutes by bus)
•***Regular vendor*** → emotional link & loyalty retainer	•***Standardization and orderly system ->*** Not be cheated
•Liberty to choose exactly what they want → guaranteed fresh goods	•Freedom to choose goods from various pack sizes or from meat stall
•Convenient timing → early morning	•Convenience from trolley, one-stop shopping, and close late at night

The fresh food opportunity & challenge

- Opportunity to build traffic and increase shopper spend
  - Fresh food is purchased on a daily basis in most Asian countries.
  - 50% of Asian shoppers' grocery spend is on fresh food.
  - Currently this is still mostly done in traditional wet markets.
- There are 3 main 'behavioral rules' that drive shoppers' fresh food purchase habits:
  - Convenience
  - Cheap prices
  - Freshness
    - Every 'bad product' experience reinforces shoppers' loyalty to the traditional trade
      - ✓ Bad = bruised, spoiled, damaged, rotten
- With lower turnover, ensuring the necessary quality of the product while containing waste is a major challenge.

Background and research details

Background to the study

- A pilot study on fresh foods wastage
  - In 2001 the Food Marketing Institute (FMI) supported by the United States Department of Agriculture (USDA) commissioned Fresh Creations to carry out a study on fresh foods wastage.
    - ✓ Carried out in 5 countries in South-East Asia
    - ✓ Supported by 24 retailers
  - The findings:
    - ✓ Wastage was a major issue in the region.
    - ✓ There was a need to measure the size of the problem.
    - ✓ Retailers wanted a benchmark to understand their performance.
  - Issues on tracking wastage
    - ✓ Need retailer senior management commitment
    - ✓ Difficulty of ensuring common measurements
    - ✓ Need to align definitions
    - ✓ Problems encountered with regular data feeds

Research objective

- To provide retailers in South-East Asia with a continuous benchmark measurement of fresh foods wastage.

- To enable retailers to measure their own performance and identify where there are opportunities for improvement.

Research details

- Retailer participants
  - 27 retailers were approached to participate in the study.
    - Covering 6 countries
  - 14 retailers agreed to take part.
    - From 4 countries
    - Thailand, Indonesia, the Philippines and Malaysia
  - 10 chains operating large format stores
  - 4 chains operating supermarkets

Cooperating retailers

- Thailand
  - Tesco Lotus, Makro, Carrefour, Big C & TOPS
- Indonesia
  - Makro, Giant, Hero, Matahari, Hypermart, Alfa & Superindo
- The Philippines
  - Makro
- Malaysia
  - Giant

Wastage measurement

- In the pilot project the formula for wastage measurement was outlined as follows:
  - Scanned gross profit% - actual gross profit%
    = gross profit variance%
    (% wastage)
  - i.e : the difference between expected gross profit margin and the actual realized gross profit margin

Wastage measurement

- The measurement to be used to track wastage was discussed with all participating retailers and it was agreed that the best measure was:
  % Known shrinkage/loss + % Unknown shrinkage

- ***Known shrinkage*** was variously defined as including:
  - All losses from damaged product
  - Losses from product reduced to clear
  - All detected and recorded waste
- ***Unknown shrinkage***
  - Unidentified variance
    - ✓ Including product lost through theft
  - Margin difference between real figures after inventory and systems

Wastage measurement

- While all retailers were able to provide a measure of both known shrinkage and unknown shrinkage, it is clear that some retailers' methods of calculation differ to some extent.

- During the period, a number of retailers revised their numbers as it was found that the data was incorrect for various reasons such as inclusion of logistics costs.

Reporting breakdowns

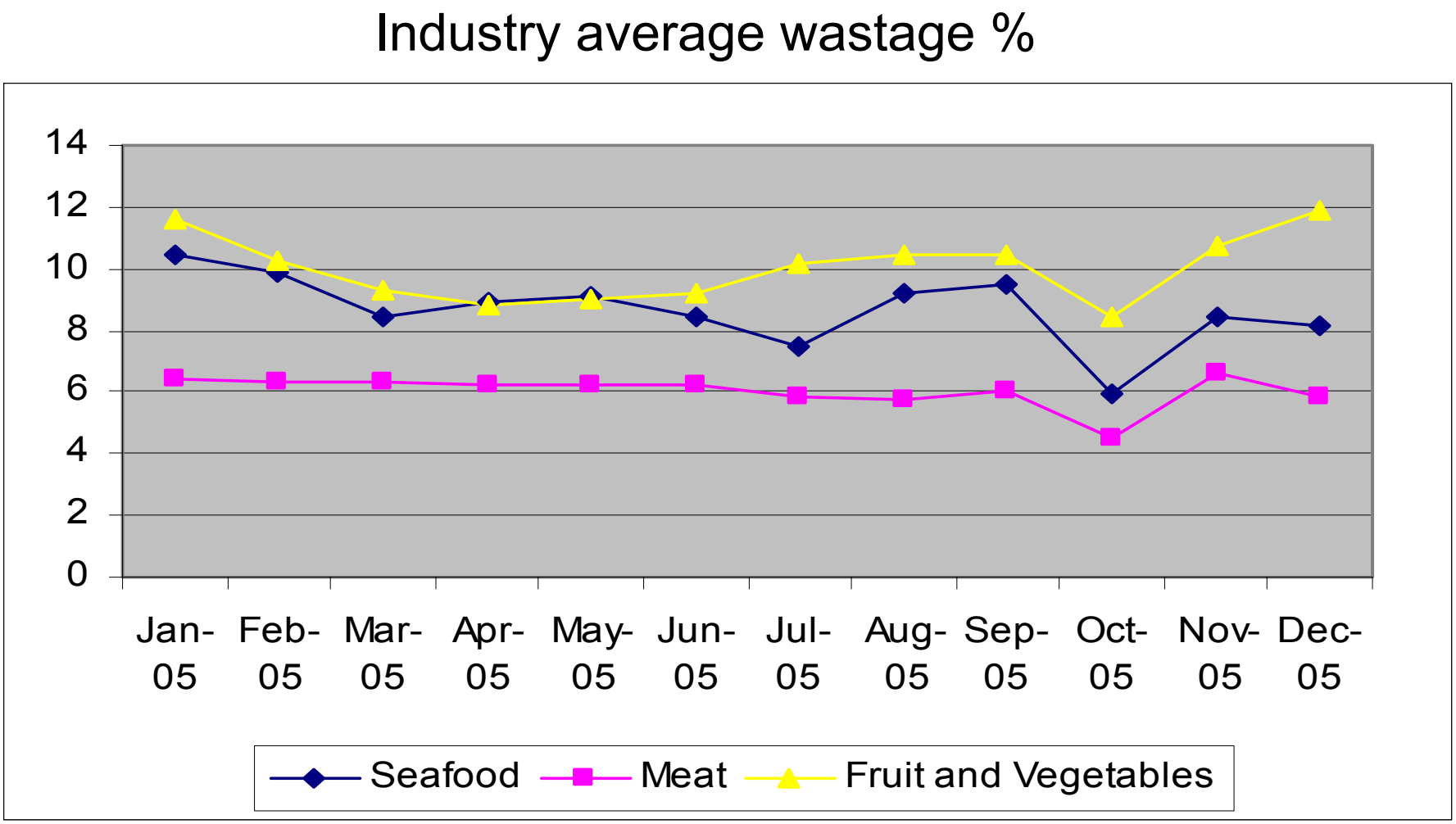
- Originally the study aimed to cover 6 key reporting breakdowns:
  - Fruit, vegetables, seafood
  - Meat, deli and bakery
- Due to reporting restrictions of some retailers and to ensure consistency this was reduced to 3 areas:
  - Fruit and vegetables
    - Local and imported fresh produce
  - Fish and seafood
  - Meat
    - All fresh meat and poultry

Data collection & reporting

- Data was collected on a monthly basis from:
  - January 2005 until December 2005
- Data was reported back to all chains comparing average wastage for:
  - Total industry
    - ✓ 14 chains combined
  - Total country
    - ✓ Only Thailand and Indonesia had enough chains participating
  - Total large format
  - Total supermarkets
  - Individual retailer

Detailed findings

Wastage was significantly lower for meat and highest on fruit and vegetables across the year.

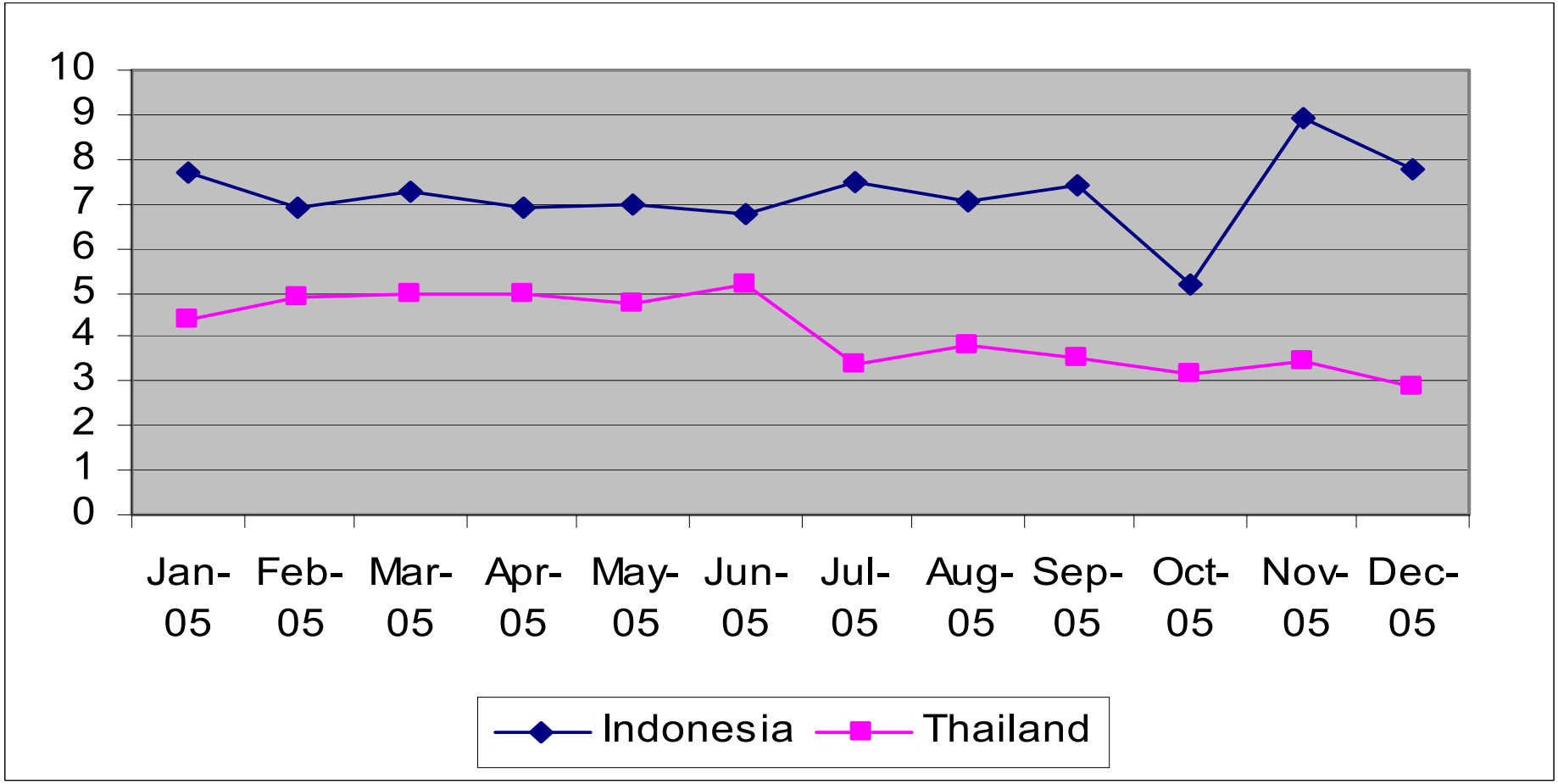


Overall industry results - meat

- Meat had the lowest wastage at *6.03%*
  - This varied between a low of 1.74% and a high of 9.90%.
  - Wastage was significantly higher in Indonesia than in Thailand.
    - 7.19% in Indonesia
    - 4.10% in Thailand
    - A smaller range of meat and more limited cuts is one possible reason for this difference.
  - Large format stores wastage was 2% lower on meat.
    - 5.46% for large format stores
    - 7.46% for supermarkets
    - This may be due to more supermarkets reporting in Indonesia.

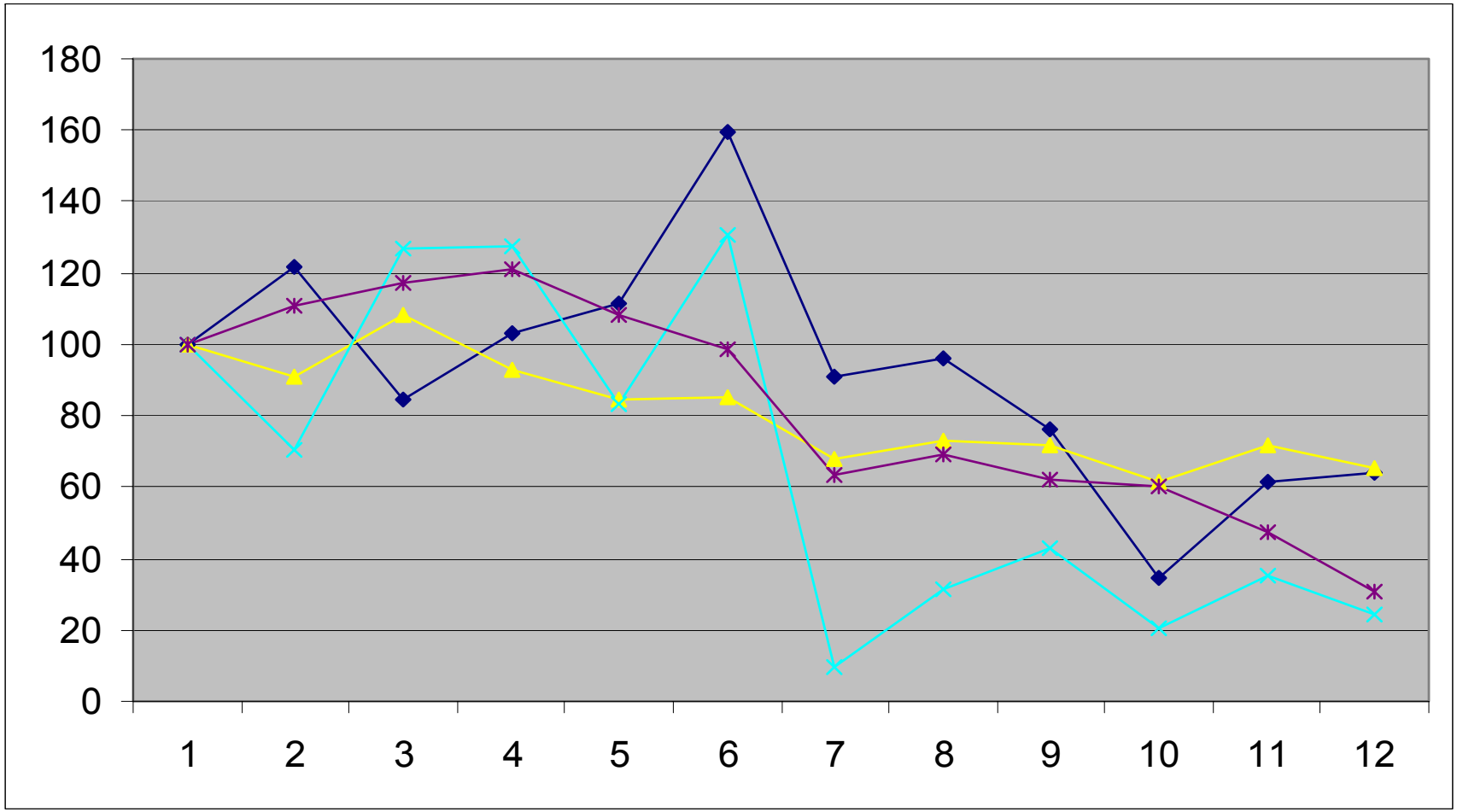
Thailand's waste on meat improved significantly in July, this occurred for most chains.

Thailand vs. Indonesia – meat wastage %



Compared to January all large format chains in Thailand improved meat wastage by between 20 to 40%.

Thailand large format chains wastage % indexed vs. Jan 2005



Fruit and Vegetables

- Fruit and vegetables had the highest wastage at *10.03%.*
  - This varied between a low of 6.41% and a high of 14.68%.
  - There was no difference between Thailand & Indonesia.
    - 9.89% in Indonesia
    - 9.94% in Thailand
  - Large format stores wastage was nearly 3% higher than supermarkets.
    - 10.74% for large format stores
    - 7.84% for supermarkets

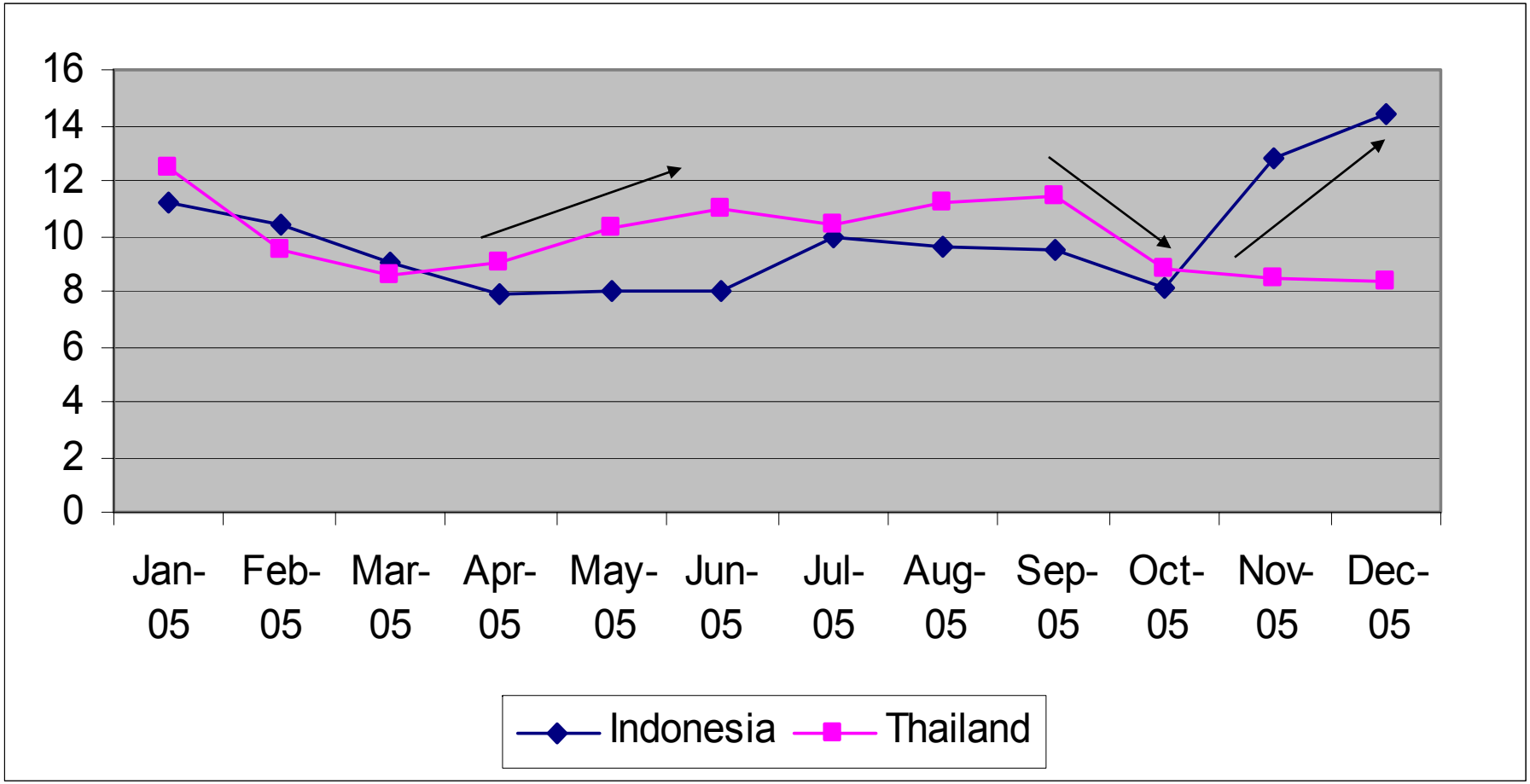
Fruit and Vegetables

- Thailand's wastage on fruit and vegetables appears to increase during the rainy season.
  - May to October
  - Although there was also high waste recorded in January and waste fell before the end of the rains in October.

- In Indonesia wastage increased dramatically at the beginning of the rainy season.
  - November/December

The different timing of the wet seasons in Thailand and Indonesia appear to effect the levels of wastage.

Thailand vs. Indonesia – fruit and vegetable wastage %

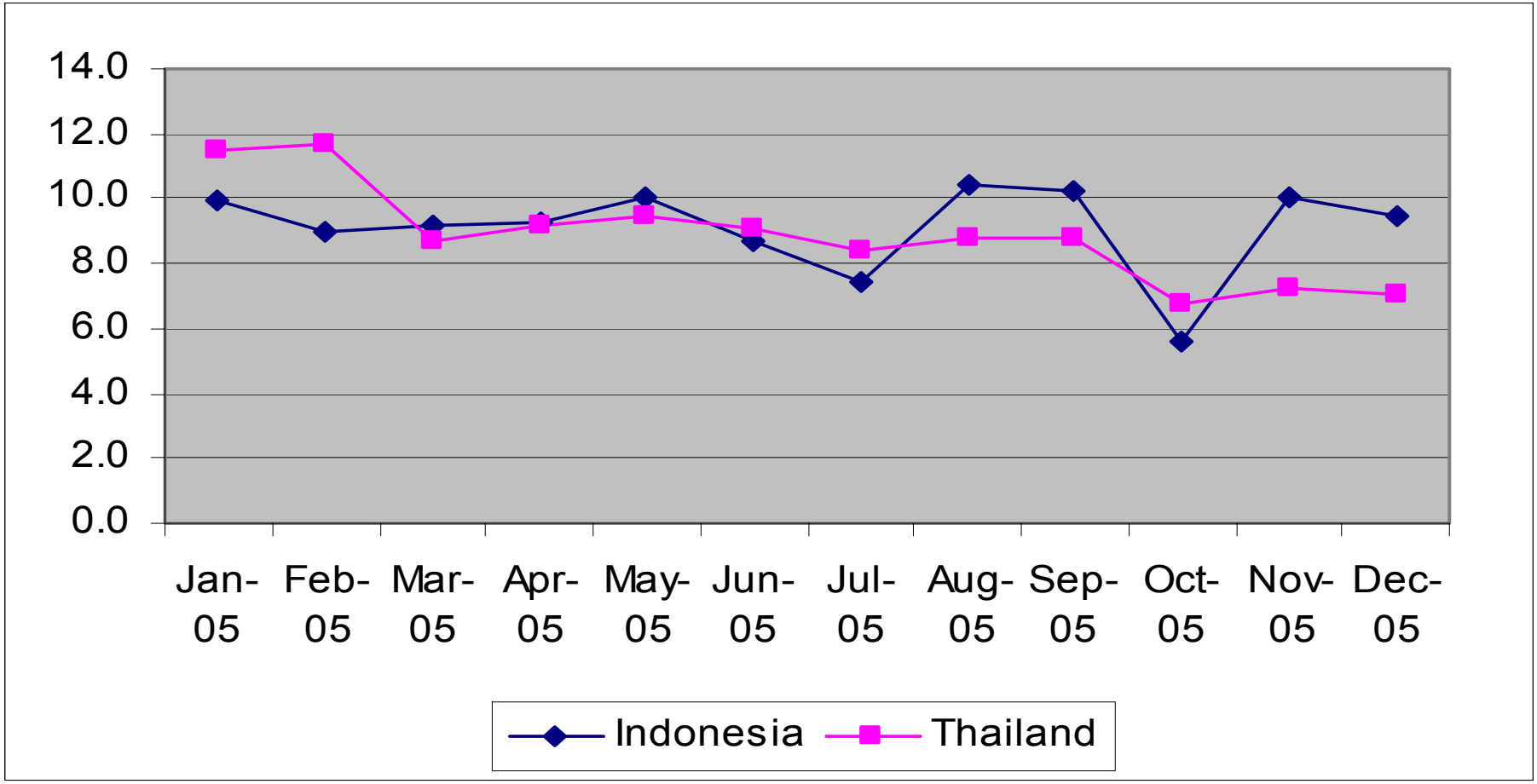


Seafood

- Seafood wastage averaged *8.65%.*
  - This varied between a low of 5.76% and a high of 12.92%.
  - Indonesia had a slightly higher wastage compared to Thailand.
    - 9.11% in Indonesia
    - 8.89% in Thailand
  - There was minimal difference between formats.
    - 8.58% for large format stores
    - 8.83% for supermarkets

Seafood wastage levels improved in Thailand throughout the year. October was the best month for both countries.

Thailand vs. Indonesia - seafood wastage %



Retailer feedback

Retailer feedback

- Space dedicated to fresh is generally high compared to the level of sales turnover in Asia.
- Logistics and transportation issues
  - Length of journey combined with the region's high temperature
  - Quality of cold chain
    - Lack of refrigeration in trucks
- Quality of product greatly impacted by seasonal effects
- Variable quality also due to inconsistency of suppliers
- Retailer staff experience and training issues
  - Need for increased and improved training for staff on how to manage fresh food products

Retailer feedback

- Problems with imported products
  - Can be up to 30% of sales
  - Lack of control of product
  - Length of journey
    - Quality of cold chain
  - Customs clearance issue
    - Length of time taken
- General climate issues
  - The high daily temperature year round

Thank you

- This study was possible due to the support of the following participating retail chains:
- Tesco Lotus (Thailand)
- Makro Thailand, Indonesia and the Philippines
- Carrefour Thailand
- Big C Thailand
- Central Food Retail Company Ltd (Thailand)
- Giant Malaysia and Indonesia
- Hero (Indonesia)
- Matahari (Indonesia)
- Hypermart (Indonesia)
- Alfa (Indonesia)
- Superindo (Indonesia)