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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$)

Base: All Household Shoppers

Ref: Q8a, 8b
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

- Fruit (Malaysia: 45%, Indonesia: 25%, Thailand: 15%, Philippines: 10%)
- Vegetables (Malaysia: 30%, Indonesia: 5%, Thailand: 10%, Philippines: 5%)
- Fruit & Veg (Malaysia: 20%, Indonesia: 15%, Thailand: 10%, Philippines: 5%)
- Meat (Malaysia: 20%, Indonesia: 10%, Thailand: 15%, Philippines: 5%)
- Seafood (Malaysia: 10%, Indonesia: 5%, Thailand: 10%, Philippines: 5%)
More shoppers use the modern trade as a secondary outlet for fresh – particularly in Malaysia.

% of households using the modern trade to regularly buy

- Fruit
- Vegetables
- Fruit & Veg
- Meat
- Seafood

Malaysia
Indonesia
Thailand
Philippines
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

- Others: 2.1
- Modern Trade: 7.4
- Wet Market: 90.5

*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**
  - Meat: 42%
  - Fruit/Vegetable: 32%
  - Others: 17%
  - Seafood: 9%

- **Wet markets in Bangkok**
  - Meat: 53%
  - Fruit/Vegetable: 22%
  - Seafood: 20%
  - Others: 6%

*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.

<table>
<thead>
<tr>
<th>How often?</th>
<th>Wet market</th>
<th>Modern trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>majority went <strong>every day</strong> → bought in <strong>small quantities</strong></td>
<td></td>
<td><em>went once or twice a week on weekends</em> → bought in <strong>bigger amounts and stocked</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What time?</th>
<th>Wet market</th>
<th>Modern trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>majority went in the <strong>early hours of the morning</strong> (6-8 AM)</td>
<td></td>
<td><strong>early afternoons or evenings</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How much time?</th>
<th>Wet market</th>
<th>Modern trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>spent about 20-30 minutes per trip → <strong>short trip</strong></td>
<td></td>
<td>spent minimum 1 hour and lasted up to a couple hours → <strong>long trip</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Who to go with?</th>
<th>Wet market</th>
<th>Modern trade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>alone</strong></td>
<td></td>
<td><strong>with kids or family</strong> → one stop shopping</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cooking meals?</th>
<th>Wet market</th>
<th>Modern trade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>breakfast and dinner</strong></td>
<td></td>
<td><strong>dinner</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Decision of menus?</th>
<th>Wet market</th>
<th>Modern trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>involving <strong>family members</strong> → asking on a daily basis</td>
<td></td>
<td><strong>most of the time decided by the shoppers themselves</strong></td>
</tr>
</tbody>
</table>
The issue of rapid turnover of products/freshness is an important reason for why wet market shoppers buy.

<table>
<thead>
<tr>
<th>Wet market</th>
<th>Modern trade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshness</strong></td>
<td><strong>Freshness &amp; Hygienic</strong></td>
</tr>
<tr>
<td>- Newness of goods → daily turnover of fresh goods</td>
<td>- Cleanly kept foods were fresh</td>
</tr>
<tr>
<td>- Stored foods under cooling section were not fresh</td>
<td>- Believed in expiry date on pack as benchmark guarantee of freshness</td>
</tr>
<tr>
<td><strong>Cheaper price</strong> and ability to bargain</td>
<td>- Chemical free goods</td>
</tr>
<tr>
<td><strong>Close to home</strong> (5-10 minutes walk)</td>
<td><strong>Acceptable price</strong> → willing to pay for clean food, good ambience, convenience from one stop shopping</td>
</tr>
<tr>
<td><strong>Regular vendor</strong> → emotional link &amp; loyalty retainer</td>
<td><strong>Close to home</strong> (10-20 minutes by bus)</td>
</tr>
<tr>
<td><strong>Standardization and orderly system</strong> - Not be cheated</td>
<td><strong>Standardization and orderly system</strong> - Not be cheated</td>
</tr>
<tr>
<td>Liberty to choose exactly what they want → guaranteed fresh goods</td>
<td>Freedom to choose goods from various pack sizes or from meat stall</td>
</tr>
<tr>
<td>Convenient timing → early morning</td>
<td>Convenience from trolley, one-stop shopping, and close late at night</td>
</tr>
</tbody>
</table>
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:
  \[ \% \text{Known shrinkage/loss} + \% \text{Unknown shrinkage} \]

- **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 %

[Graph showing data]

- Indonesia
- Thailand
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)