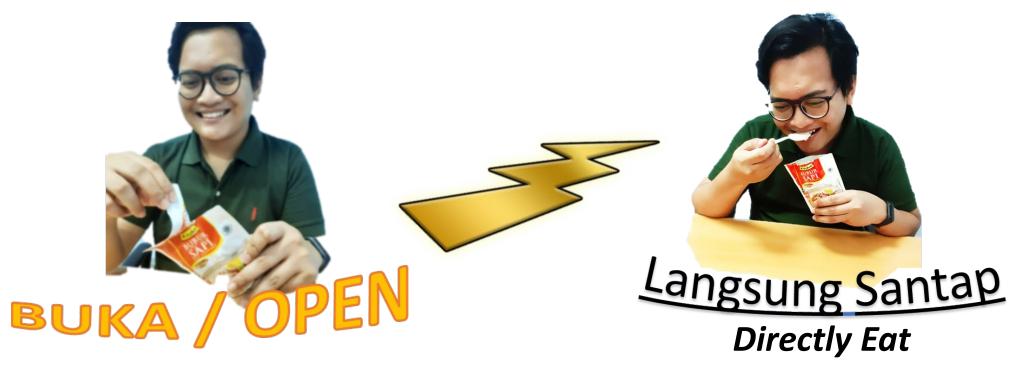






What is Ready to Eat Meal?

Ready to Eat Meal is Food that can be **EATEN DIRECTLY** – The said meal has been prepared and/or cooked, and/or packed; therefore, there's no additional cooking / heating / preparation required for consumption.







HISTORY of Ready to Eat Meal



1806

Nicholas
Appert from
France
'FOUNDED'
sterilization
process

1812

Canninng factory opened in USA

1800-1900

Canning foods were used in military & navy

1945-1955

Frozen food was trending in US – 'TV Diners'

1960-ish

Research for MRE with retort technology by US Military Defense Dept.

1968

First commercial product using flexible retort pouch by Otsuka Chem – Japan ('Bon Curry')

1971

160 million pouches sold in Japan

1989

1 billion pouches sold in Japan

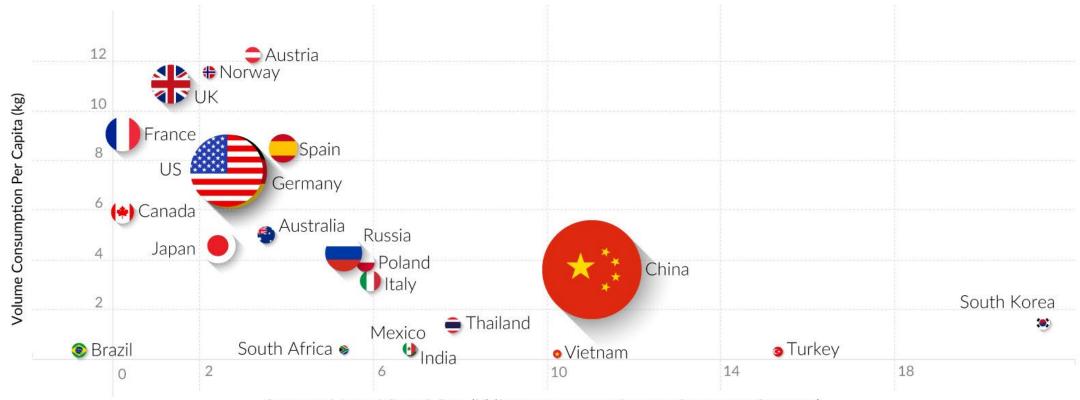
1990 - ...

Commercialization of Ready Meal with Retort technology (AGR 4-5%)

2000 – Tuna in pouch launched in USA



Worldwide Ready Meal Market 2020



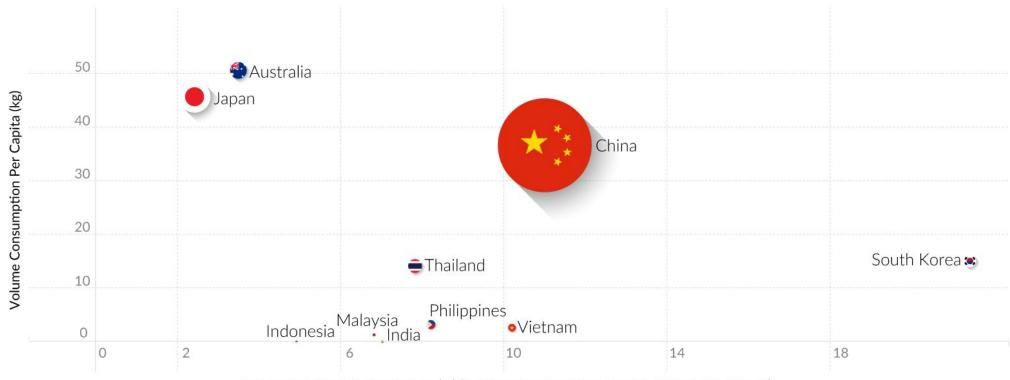
Compound Annual Growth Rate (%) (forecast average value growth over next five years)

Courtesy: Mintel

Ready meal includes meal RTE, meal kit & microwavable meals



Asia Pacific Ready Meal Market 2020



Compound Annual Growth Rate (%) (forecast average valure growth over next five years)

Courtesy: Mintel

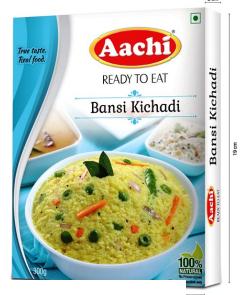
Ready meal includes meal RTE, meal kit & microwavable meals





Ready To Eat Meal Packaging

















Ready To Eat Meal in Retort Pouch



Global Retort Pouch Market

Size in 2018 ~ 50 Trillion Rupiah (USD 3,5 billion)

(Grand View Research)

Asia Pacific around 40% of the market

Courtesy: Transparency Market Research



Production Process of Ready to Eat

PREPARATION



COOKING



FILLING



CARTONING



STERILIZATION





Technology of Ready to Eat Meal

RETORT TECHNOLOGY

Process of heating food / drink in Retort Pouch, Cans or other hermetically sealed containers in retort chamber at **High temperature (121°C)**, **under certain time** to reach commercial sterilization

Retort technology is aimed to kill all bacteria and spores of pathogenic bacteria (*C.botulinum*) in the packaging & deactivate all enzymes action

Long Shelf Life

No refrigeration needed – room temperature storage

No preservatives required

Shelf life of 6 months – 2 years



Technology of Ready to Eat Meal

The duration time for Retort is determined by:

- Packaging type (Can? Retort Pouch? Glass jar? Rigid Container?)
- Packaging size
- Content of Menu (Solid & Liquid Ratio Product thickness)
- Retort machine type

BALANCE between STERILIZATION (Food Safety) VS OVERCOOK (Organoleptic)









Retort Pouch Technology



Courtesy: packaginglabelling.com

- Flexible pouch specially designed to withstand hot temperature.
- 3 / 4 layers:
 - Polypropylene (innermost; sealing; flexibility)
 - Nylon (Resistant toward sharp object)
 - Aluminum foil (barrier to light and aroma)
 - Polyester (Strong, glossy, printable)

Packaging Technology is extremely important for Ready to Eat food.

This is to guarantee the optimum level of sterilization and to make a long shelf life available - BUT with the condition that packaging is intact and there's no leakage.



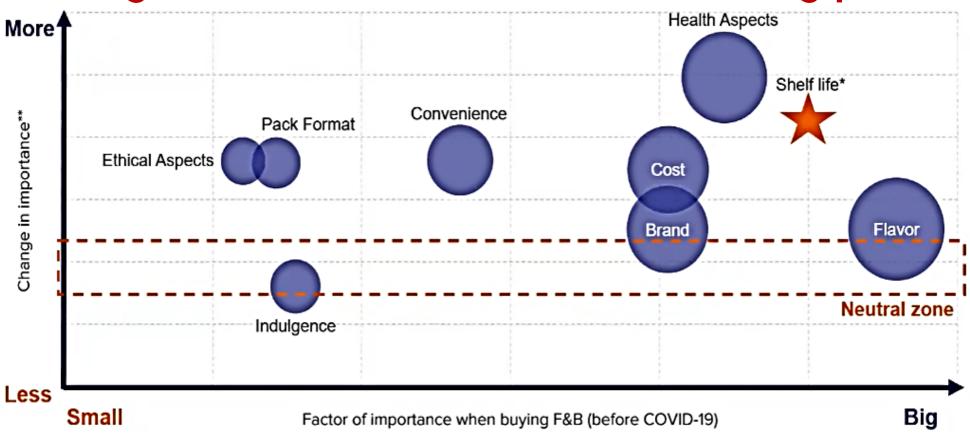
COVID-19 STATUS (22 July, World meter)

AREA	CONFIRMED	DEATH	RECOVERED	
Worldwide	15,136,261	620,502	9,153,014	
China	83,693	4,634	78,817	
USA	4,028.57	144,953	1,886,583	
Indonesia	89,869	4,320	48,466	
SOUTH East Asia	203,077	5,732	117,320	as of 16 July 2020

Active cases still increasing rapidly in many parts of the world including Indonesia. Transmission likely to continue until... Vaccine? Medicine?



Changes in FMCG Purchase Behavior during pandemic



Source: Innova COVID-19 Consumer Survey 2020 + Innova Category Survey 2019. Average of: India, China and Indonesia

*Star sign instead of bubble as no data on shelf life is available prior to COVID-19, x-axis data for shelf life is estimated.

**Change in importance due to COVID-19

Bubble size: Factor of importance before COVID-19 (i.e. same data as x-axis)

1 • INNOVA MARKET INSIGHTS
Source: Innova (Zoom talk by Dr Irene Kersbergen)





Consumer Behavior during Pandemic







HEALTHY EATING

FOOD SAFETY & SANITATION

EATING AT HOME











Covid 19 & Consumer Behavior (Forbes & Bain)

1. Home Cooking becomes more popular

Survey Technomic -32% respondents cut out dining in the restaurant. South East Asian customers -1,5x prefer NOT to eat out compared to US respondents after the lockdown relaxation.

Relevance: Increase usage in cooking seasonings, ready to eat, cooking aid, baking kit

2. Health & Wellness

Concern toward nutritious and healthy food -73% respondents starts to be more health conscious (2x fold more than in USA)

Relevance: health food, organic food, vitamin fortified, herbal drinks / spices

3. Food Safety

Concern towards how food is being handled & worry on disease transmission via food – though the risk is extremely small.

Relevance: canned food, prepackaged food consumption increased



Covid 19 & Consumer Behavior (Forbes & Bain)

4. Value for money becomes the main consideration

During unpredictable in economy & increased of unemployment, 57% respondents said that getting something with value for money is very important

2x Asian respondents said that saving money will be a Top priority after pandemic.

Relevance: Cheaper meal package, Economical meal, Cost reduction

5. Online Groceries shopping is increasing

48% respondents prefers to do online shopping— channel shifting

Relevance: Digital Marketing, omni channel

6. Willingness to try new brand

Consumers have brand preference but in the case where preferred brand is not available, 40% willing to try new brand

Relevance: New upcoming brand, existing brand need to constantly innovate

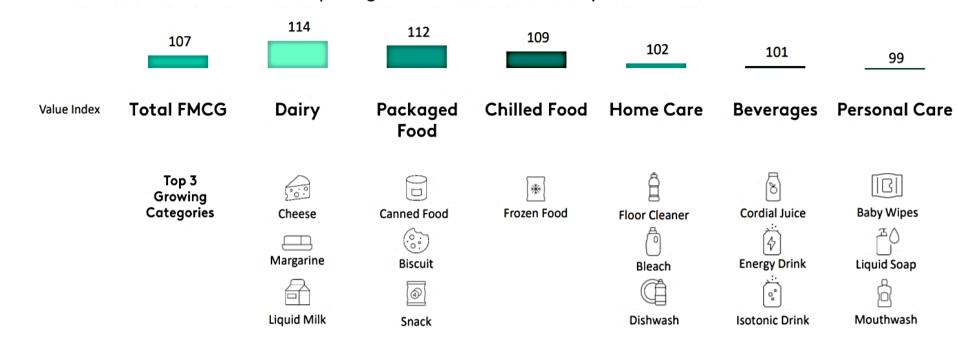
www.foodexingredients.com



INDONESIAN CONSUMERS – SPECIAL COVID-19 EDITION – WEEKLY TRENDS

FMCG Emerging Trends

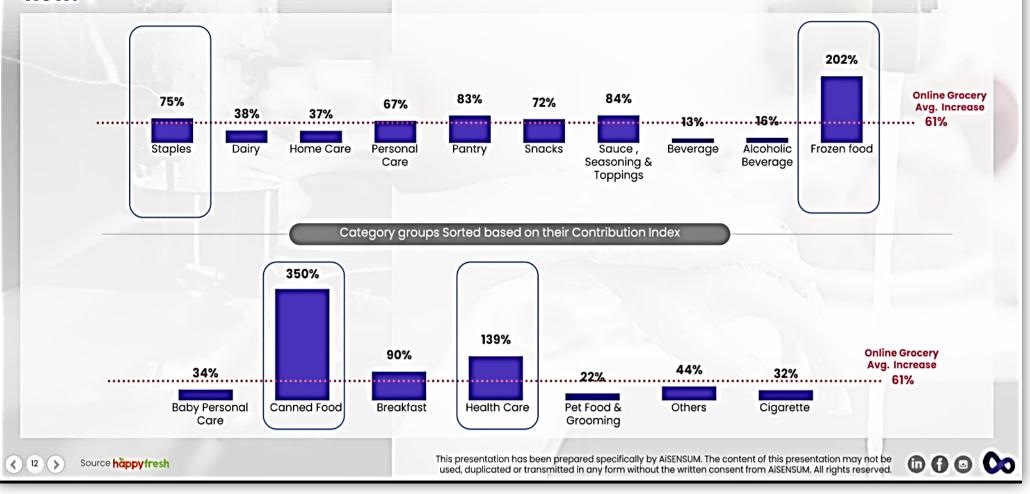
Zooming into weekly trends, Dairy and Food sectors are growing the fastest, with top categories on comfort eating. The Germ-Kill Theme is still the top categories in the home care and personal care



www.foodexingredients.com

Which Category groups have increased during the COVID-19 phases?

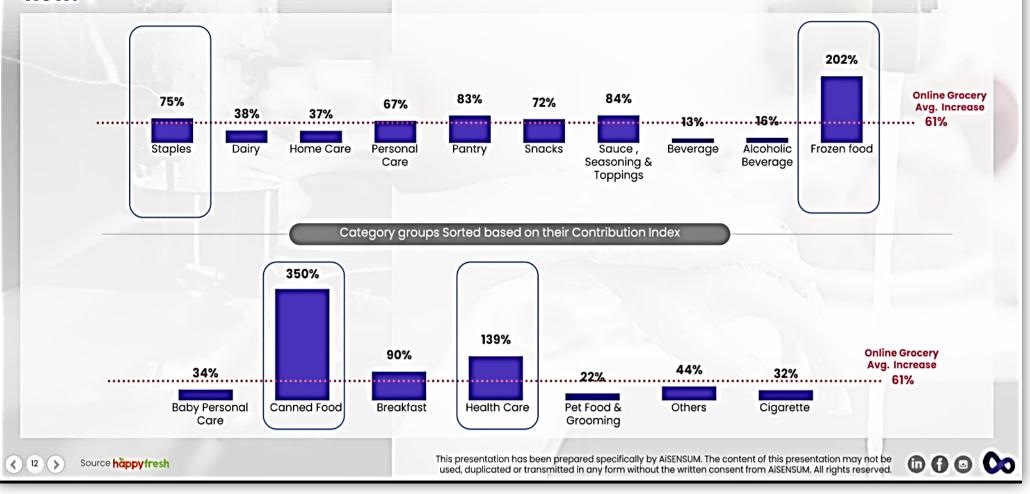
4.2 Cooking items and Healthcare items show the highest increase during the Post Covid-19 phase. Non perishable food items like Canned Food also is a priority now.



www.foodexingredients.com

Which Category groups have increased during the COVID-19 phases?

4.2 Cooking items and Healthcare items show the highest increase during the Post Covid-19 phase. Non perishable food items like Canned Food also is a priority now.





Porridge (Chicken, Beef) - Meal (Curry, Beef Stew, Bolognese) - Dessert

PT MADUSARI NUSAPERDANA



Relevancy of Ready to Eat in Pandemic

COMPLETE NUTRITION

- Pouch content with real meat and real vegetables
- No additional additives

CLEAN DAN HYGENIC

• Prepackaged, clean, less post-processing human touch

PRACTICAL

- Safe for direct consumption without heating or cooking
- Ambient / Room temperature storage

LONGER SHELFLIFE

Shelf life (min 6 months – 2 years)

Contact US: sales@foodexingredients.com

READY TO EAT!

Anytime & Anywhere!

- Family
- Medical personnel
- Office workers
- Kids
- Emergency

PT. Foodex Inti Ingredients is focusing only to B2B market where we can custom make **APPETIZER**, **MEAL**, and **DESSERT** with vast menus from Indonesia and International.

Our Menus currently serving 20 Appetizers, 30 Meals and 20 Desserts.

