Successful Consumer Research for Development of Agribusiness Value Chains

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Overview

- Market vs. marketing (consumer) research
  - Focus on quantitative consumer research methods
- Consumer research difficulties
- Sampling
- Stated preference methods
  - Examples
- Revealed preference methods
  - Examples
- Example 1: Indonesian willingness-to-pay for certified organic
- Example 2: Australian beef willingness-to-pay

Market or “consumer” research?

- Market research (Secondary Data)
  - Macro-level,
  - General knowledge
  - Supply and demand conditions
  - Push versus pull?
  - Drivers of demand (aggregate consumers)
    - Consumers or other force (e.g. supermarkets)?
    - Substitutes, complements, population
  - Policy issues, blockages, external forces
  - Import competition

Consumer research

- Marketing mix – 4 -7 P's
  - Product
  - Price
  - Place

  Focus
  - The other P's = position, promotion, process and people
- Primary data
  - Surveys, questionnaires
  - Focus groups
  - Structured interviews
  - Observation, field trials, shadowing
- This talk is focused on quantitative methods – usually done through survey instruments, questionnaires…

Consumer research difficulties

1. Consumers are often unable to articulate the actual value of food attributes or information
   - Often hard to predict or explain utility for food attributes
   - Unconscious of how they use information

2. Consumers tend to have heterogeneous preferences and utility for food attributes,
   - Markets are segmented, not "one-size-fits-all"
   - Based on attitudes – not necessarily demographics

3. Distribution of value through the value chain is ambiguous
   - Just because consumers say they value something doesn't mean that producers will benefit

Sample: Representative?

- Sampling may be especially difficult in consumer R4D context
- Sample frame is often the issue
  - List from which a sample is drawn from

- What or who is your market or potential market?
  - Population (Census)
  - Urban or rural
  - Food shoppers or food decision makers?
    - Housewife or someone else (e.g. domestic assistant?)
  - Shoppers at a specific outlet type?
    - Modern (supermarkets) vs. traditional retail outlets
    - Food away from home (e.g. restaurants)
    - Resorts and tourists
    - International / Export markets

Research methods:

What do we want to measure?

- Knowledge, attitudes, awareness, perceptions, preferences, relative importance, value, willingness-to-pay?
- Current behaviour?
  - Where are consumers shopping for specific products and why?
  - What is important when purchasing certain products?
  - What are current issues (e.g. what could be improved?)
  - What do consumers use to determine quality?
- Expected behaviour?
  - Predicting demand for a new product?
    - Price and quantity
- Stated preference vs. revealed preference
  - Revealed preferences not usually available in a R4D context
    - Panel data, scanner data, experiments, field tests

Stated Preference (SP) Methods

- Direct Methods
  - Rating scales
  - Ranking
  - Attitudinal measures
  - Contingent Valuation (CV)
    - Open ended, payment card, dichotomous choice
- Issues with SP methods
  - Hypothetical
  - Overstate the importance of product characteristics
  - Stated importance and attitudes weakly related to actual purchase behaviour

Example of Rating: Important attributes for chocolate (Vanuatu, share of respondents indicating level of importance)

C3. When purchasing chocolate for personal consumption or as a gift, how important are the following attributes:	Not at all Important (%)	A little important (%)	Somewhat Important (%)	Important (%)	Extremely Important (%)
Price	8	10	19	28	34
Flavour	1	2	6	28	63
Size or weight of the product	14	9	23	34	20
Packaging of the product	12	10	18	38	22
Nutritional information	19	9	15	30	27
High % dark chocolate/ high % cocoa	12	10	15	42	21
Milk chocolate rather than dark chocolate	15	9	18	35	23
Brand (e.g. Nestle, Cadbury, Hersheys etc.)	15	10	15	31	28
Certified Organic	19	10	15	31	24
Certified Fair Trade	20	10	16	34	20
Other certification (Rainforest Alliance, Utz, etc)	27	12	24	26	12
Ingredients are from a certain country (e.g. Vanuatu)	16	8	19	36	22
Ingredients are all from a certain part of a country	20	11	20	33	16
Product is produced locally	11	7	15	33	34
The product is produced locally and owned locally	11	6	12	33	38
Buying it helps support local producers	9	4	13	35	39
Produced using traditional methods or knowledge	15	6	19	37	24

Example of Ranking:
Important attributes for chocolate (Vanuatu, version 2)

CH2. When purchasing chocolate for personal consumption or as a gift, how important are the following attributes: Please rank your top 5 attributes '1' being the most important.

- ☐ A. Price
- ☐ B. Flavour
- ☐ C. Size or weight of the product
- ☐ D. Packaging of the product
- ☐ E. Nutritional information
- ☐ F. High % dark chocolate/ high % of cocoa
- ☐ G. Milk chocolate rather than dark chocolate
- ☐ H. Brand (e.g. Nestle, Cadbury, Hersheys, etc)
- ☐ I. Certified Organic
- ☐ J. Certified Fair Trade
- ☐ K. Other Certification (Rainforest Alliance, Utz, etc)
- ☐ L. Ingredients are from a certain country (e.g. Vanuatu)
- ☐ M. Ingredients are all from a certain part of a country (e.g. a particular island, region)
- ☐ N. Product is produced locally
- ☐ O. The product is produced locally and owned locally
- ☐ P. The product specifies that buying it helps support local producers
- ☐ Q. The product specifies it is produced using traditional methods or knowledge
- ☐ R. Other (please specify): …….

Example of Ranking: Factors in Indonesian's Food Choices

H. FACTORS IN FOOD CHOICE

In choosing the food products you purchase, what are the 3 most important factors influencing your decision (apart from halal)?

	Most important H1	2nd most H2	3rd most H3
1. Food in general			

In choosing each of the following types of products, what are the 3 most important factors influencing your decision (apart from halal)?

	Most H1	2nd Most H2	3rd Most H3
2. Mango			
3. Other Fresh Fruit			
4. Chilli			
5. Shallot			
6. Other Fresh Vegetables			
7. Shrimp			
8. Poultry			
9. Meat (beef, lamb etc)			

Codes for H1 - H3

1	Price	12	Diversity
2	Nutritional content	13	Smell
3	Food safety	14	Colour
4	Quality	15	Appearance
5	Taste	16	Firmness/texture
6	Freshness	17	Variety (e.g. gadung)
7	Easy to prepare	18	Package size
8	Production method (e.g. organic)	19	Expiry date
9	Brand	20	Other labelling info
10	Origin (country or region)	21	Never purchase this item
11	Grade, Class, Size		

Food	Poultry	Chili	Mangos
Price	Freshness	Freshness	Taste
Quality	Price	Quality	Freshness
Freshness	Quality	Price	Price
Safety	Colour	Colour	Quality
Taste	Texture	Appearance	Smell

Example: Contingent Valuation WTP for Certified Organic

		Does your household ever purchase [product]?	If J12 = yes		If J12 =yes and J14=2
			What is the normal price you pay for this product?	If you have a choice between buying conventional [product] and [product] that is labeled "Certified Organic", which one would you buy? 1 = I would NEVER buy the "Certified Organic" product 2 = I would buy the "Certified Organic" product if the price was right.	What is the maximum amount extra that you would be willing to pay for [product] that is labeled as "Certified organic"?
		1. Yes 2. No	Rupiah/kg		(percent)
J11	Product	J12	J13	J14	J15
1	Chillies				%
2	Mangos				%
3	Shrimp				%
4	Chicken				%

Indirect preference measures

- Conjoint analysis
  - Respondents rank, rate, or choose between competing product profiles that differ in terms of a number of attributes

- Discrete Choice Experiments (DCEs)
  - Choice sets framed to closely resemble purchasing scenarios
  - Consumers choose from a set of products, each with different attributes
  - Holistic product evaluation
  - Forces respondents to trade-off several attributes against another
  - Consistent with random utility theory
  - Evidence that DCEs allow researchers to efficiently:
    - estimate relative values for multiple product attributes
    - predict consumers' actual market behavior

Example of Discrete Choice Experiment:

Relative WTP for COOL, Traceability, Food Safety and Tenderness

20.1	Option A	Option B	Option C
Price	6.75	9.45	Neither Option A nor B Is Preferred
Country of Origin Labeled	No	Yes	
Traceable to the Farm	Yes	No	
Food Safety Inspected	No	Yes	
Guaranteed Tender	No	Yes	
I would choose: (Please Mark Only One Box) →	☐	☐	☐

Attribute	Mean WTP
COOL	$2.57/lb
Traceable	$1.90/lb
Food Safety	$8.07/lb
Tenderness	$0.95/lb

Loureiro, M.L. and W.J. Umberger. 2007. "A Choice Experiment Model for Beef: What US Consumer Responses Tell Us About Relative Preferences for Food Safety, Country-of-Origin Labeling and Traceability." *Food Policy*. 32(4):496-514.

Imagine you are shopping for a Sirloin/Porterhouse beef steak at your favourite retail outlet for consumption at a dinner with family and/or friends on the weekend.

In the following screens you will be shown 16 shelves with four different meat cases each.

In addition to variations in price, marbling, and external fat, each steak will vary in product such as brand and certifications - these are similar to the ones that you've just evaluated.

This is an example:

Would you realistically purchase the option you chose?
Please select one

- (•) Yes
- ( ) No

Select the beef steak you would be most likely to choose. Please indicate your choice by clicking on the steak that is your most preferred alternative, it will be highlighted with a RED frame.

Finally, please indicate if you realistically would purchase your most preferred alternative.

You will be forwarded to the next shelf answering these questions and clicking the ">>" button.

Your progress through the 16 different shelves will be indicated in the lower right hand side of the screen.

Example: Indonesian Urban Consumer Study

- Develop an improved understanding of consumer preferences for high-value food products, quality and different types of retail outlets.
  - Consumer food shopping behaviour for products of importance to our value chains
    - Mangoes, chillies, shallots, shrimp, poultry
  - Modern vs. traditional retail use for food purchases
  - Market demand for products with credence attributes
    - food safety certifications
    - organic
    - pesticide free
  - Impact of supermarkets on dietary transformation

Self – Claimed Fresh Food Products with credence attributes in hypermarket (Bogor, West Java)

ORGANIK INDONESIA

MoA certification programs for certified organic on fresh food products

Consumer Survey Questionnaire

A. HH Characteristics

B. Housing and Assets

C. Cooking & Shopping Attitudes & Behaviour

D. Shopping Behaviour

E. Food Consumption

F. Non – Food Expenditures

G. Retail Outlet Use, Preferences & Perceptions of Quality, Safety & Convenience

H. Factors in Food Choices

I. Nutrition Attitudes & Food Concerns

J. Certification Awareness, Purchases & Perception

K. Certification WTP

L. Diet and Health

Research Location

Indonesian Government Household Hierarchy

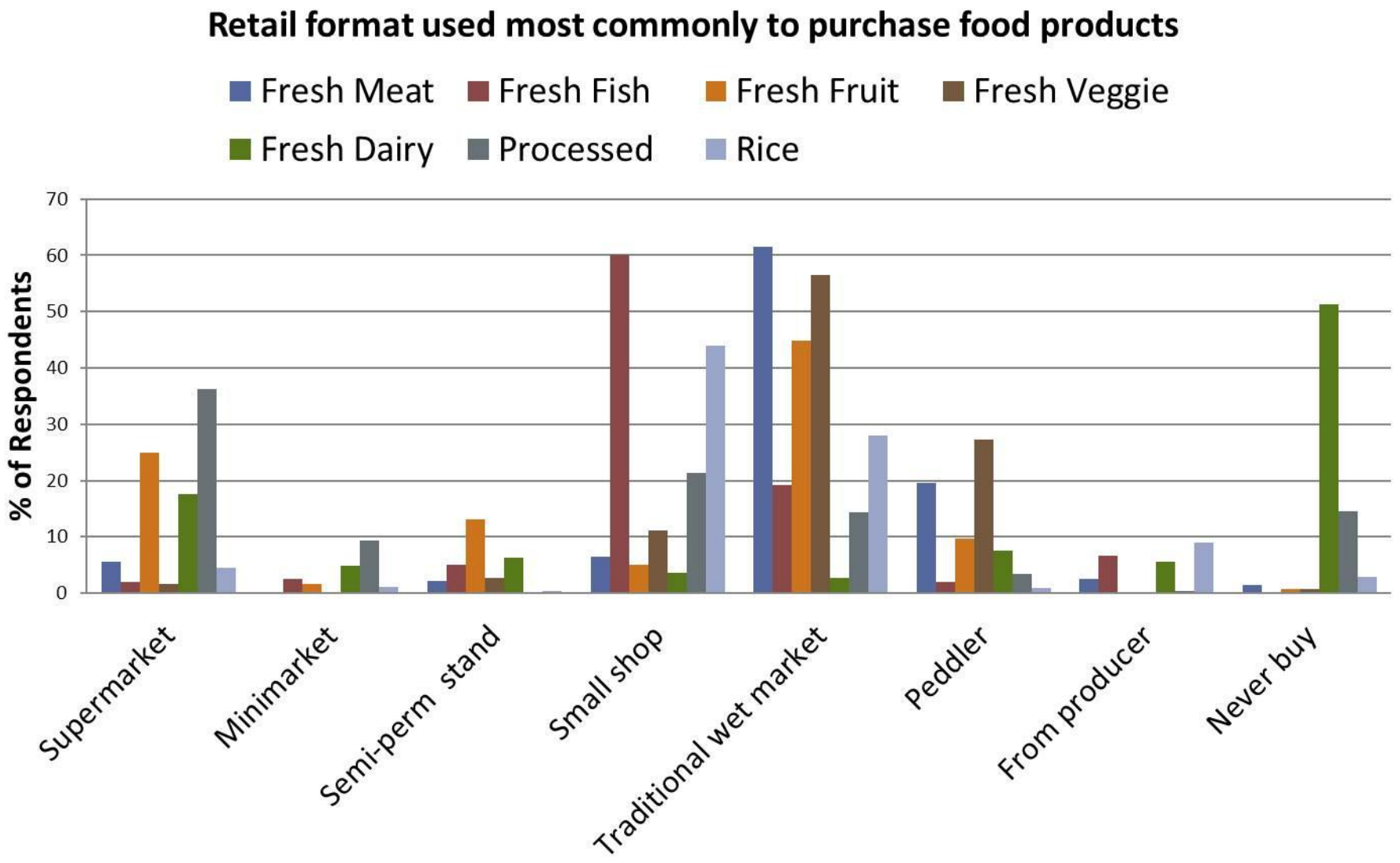
No	Government Hierarchy Level	Number of Population
1.	Municipal (city)	More than 500,000
2.	Kecamatan = suburbs	26,000 – 200,000
3.	Kelurahan	2,000 – 48,000
4.	RW	200 - 2400
5.	RT	80 - 600

Stratified multi-stage random sample

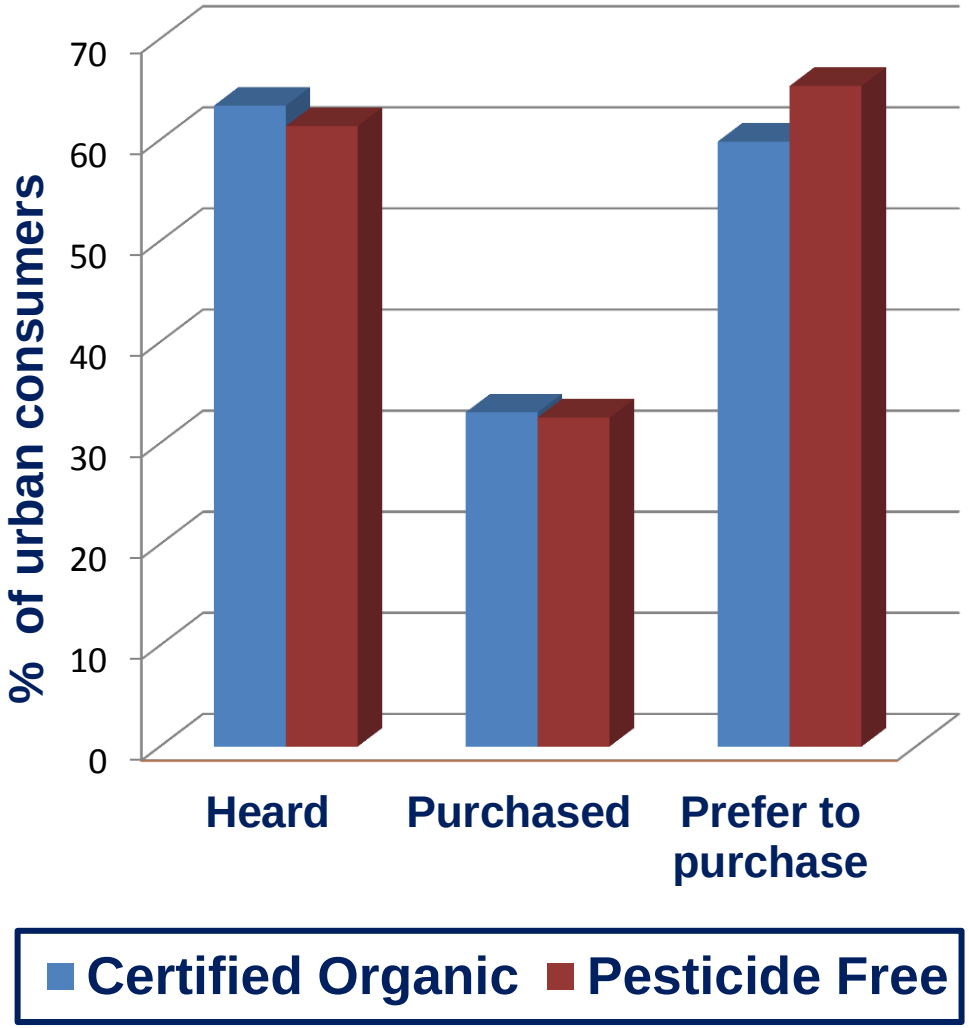
- 1180 urban consumers in 3 cities (Surabaya, Bogor, Surakarta)
- Interviewed by trained enumerators
- October – December 2010

1. Select cities within Java (based on population and size),
   - Surabaya – largest (2.8M)
   - Bogor – medium (950K)
   - Surakarta – smallest (499K)
2. Select kelurahan within each selected city by proximity to modern food retail stores by using map
3. Randomly select Kelurahan
4. For each selected Kelurahan, rank RWs and RTs based on “rough income estimation”
5. Randomly select 2 RT for each selected Kelurahan (oversample the high-income RT)
6. List all the HH at each selected RT
7. Randomly select households

Indonesia food shopping behaviour



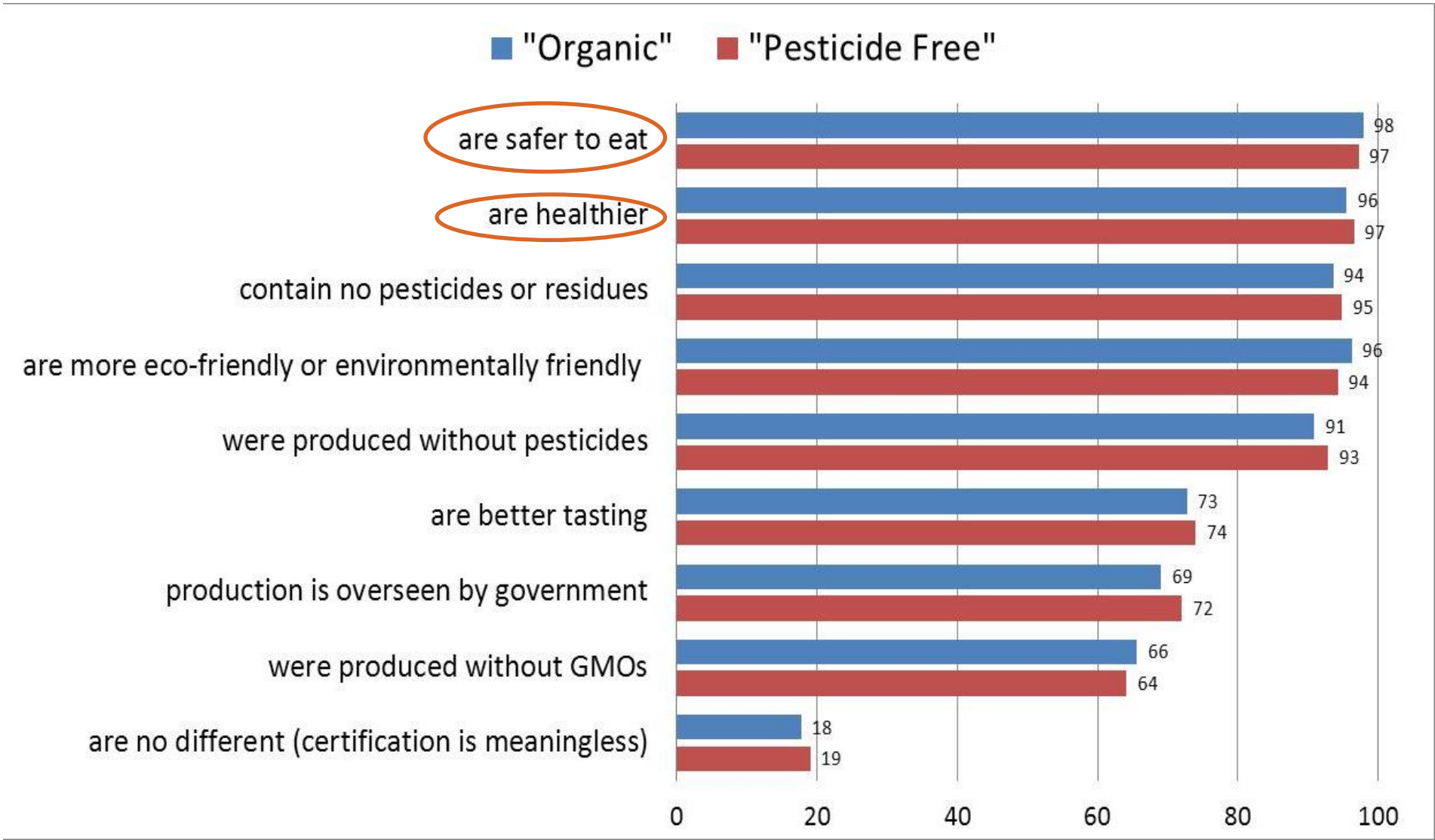
Consumers' Awareness, Purchases and Perceptions of Credence Attributes on Fresh Food Products



- 61-63% “aware” of organic & pesticide-free
- 33% previously purchased organic & pesticide-free
- 60-65% would prefer to purchase food products labelled as ‘certified organic’ or ‘pesticide free’

Urban Consumers' Perceptions of Certified "Organic" and "Pesticide Free"

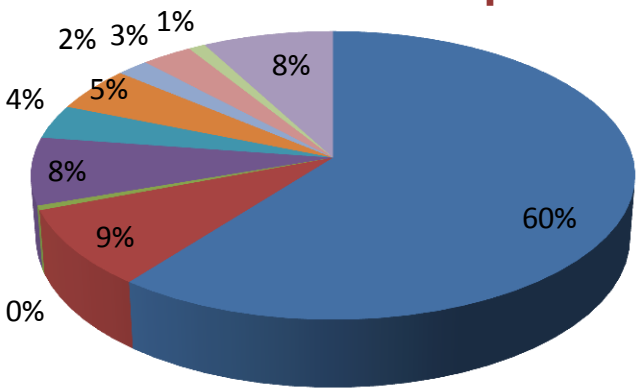
% of respondents who agreed that Certified Organic or Pesticide Free is…



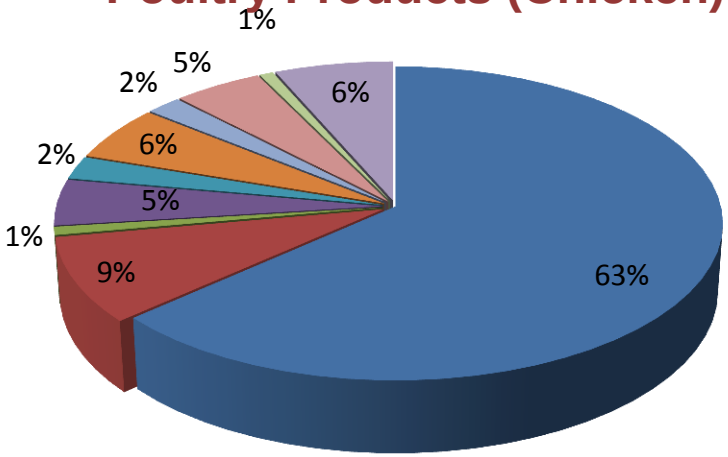
Most trusted entity to certify production methods?

> 60% trust/prefer Central Government

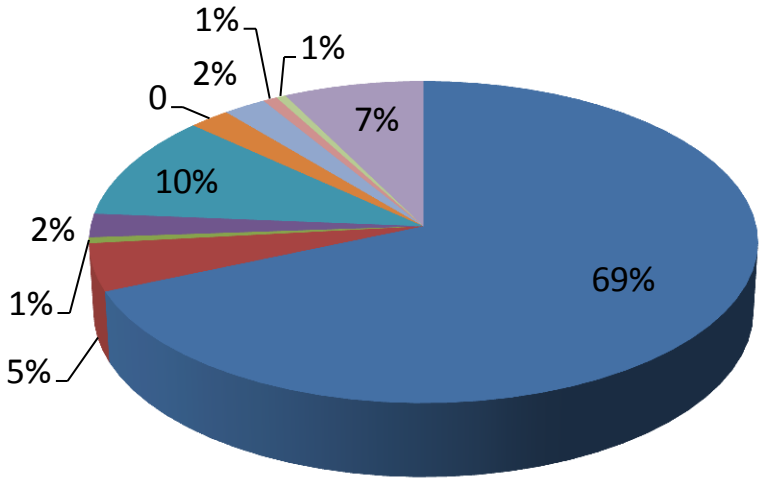
Shrimp



Poultry Products (Chicken)



Fruits and Vegetables



- Central Gov't
- Local Gov't
- Foreign gov't org.
- Farmers & farmer org.
- Food company
- Supermarkets
- Independent 3rd parties
- Religious org.
- Others
- No opinion

Stated Willingness-to-Pay for "Certified Organic" Food Products

- 67% - 69% willing to buy certified organic if price was "right"
- On Average, Indonesian urban consumers were willing to pay a price premium of 20% for certified organic products
- Not significant differences in premiums across product categories

Products	% Regularly Purchase [product]	Normal Price (Rp/kg)	% willing to buy "certified organic" if the price was right	Average Willingness to Pay (% extra from normal price)
Chilli	98.5%	24,900	67.8%	19.6%
Mango	94.4%	7,500	67.2%	21.8%
Chicken	96.3%	24,300	67.4%	18.4%
Shrimp	75.9%	35,500	69.5%	19.4%

Take Home Messages for Organic

- Organic **is <u>perceived</u>** to be healthier, more nutritious, safer and higher quality
  - Concerning because organic is not necessarily more nutritious or healthier…
  - Quality could be higher based on value chain processes and certification programs
- Small share of consumers willing and able to pay premiums for Organic
- Certification and standardization are vital to maintain credence of organic and a viable "high value" market for producers
  - "certified organic" versus "self-claimed organic"

Take home messages

- Consumer information is very important, but often, even the "best" products fail in the market because of other issues
  - External constraints
  - Internal (supply chain) issues
- There is not a "one size fits all" research method, the "best" depends what you're trying to do and how accurate you need the information to be
  - Developing the marketing mix for a new product
  - Predicting demand for a new product
  - Determining where or how to intervene in a chain
- Indirect methods (e.g. conjoint methods, preferably discrete choice experiments) are essential for determining relative value and predicting demand
- Never, ever assume
- Engage a behavioural economist or marketing specialist

Thank you! Questions?

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