



Analysis of Consumer's Behavior in the Metropolitan Area after the Tohoku Earthquake

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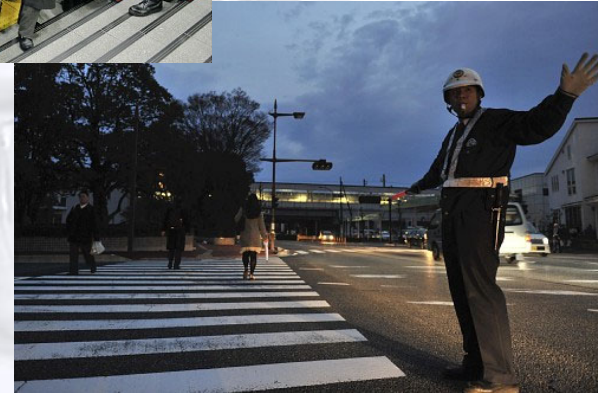
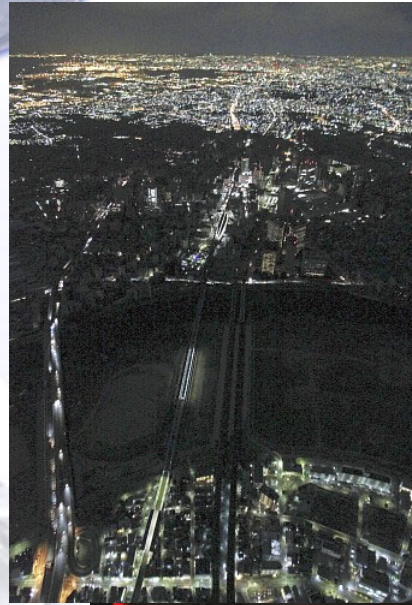
Tohoku Earthquake Disaster



Shortage of Fuel, Water



Rolling Blackouts



Damage by Negative Image



Purpose of Study

- **Damage** situation in metropolitan area
- **Outlook** for restoration
- **Concern** about ag. products' and water's contamination
- **Consumer's behavior** after the earthquake, and these **factors**



Methodology

- Mail survey in April, 2011:
to 1,000 **adult female consumers**
in Chiba-city by random selection
- 54% Response rate
- Finally, we used **350 cases**
- We use correlation analysis and
multiple regression analysis



Characteristics

- 48 years old (average)
- 3.7 household size (average)
- 23% household with child,
1.5 number of children (average)
- 34% homemaker, 26% part-timer,
27% office worker
- 201-500 million yen household
income (mode)



Damage from Earthquake

- 12% house, **43% non-damage**
<5,000 yen damages (mode)
- 16% dizziness or insomnia
- 17% victim in the relative
- Life line:
8% road, 5% gas, 3% waterworks,
60% non-damage



Shortage, Blackout

- Right after:
48% fuel, 8% mineral water
7% instant , 6% flashlight / stove
- Present: **48% mineral water**,
20% flashlight / stove
- Rolling Blackouts
44% experience
- Operation Status of Blackouts
68% unfair 21% fair



Outlook for Restoration

- **6.0 years** it needs (average) : senior citizens were optimistic
- Permissible financial resource:
65% charging fees of freeway,
56% child allowance ,
40% consumption tax, 31% income tax,
25% government bond
- Cooperation:
84% contribution (10,626 yen)
6% volunteer (3.1 days)
95% power saving

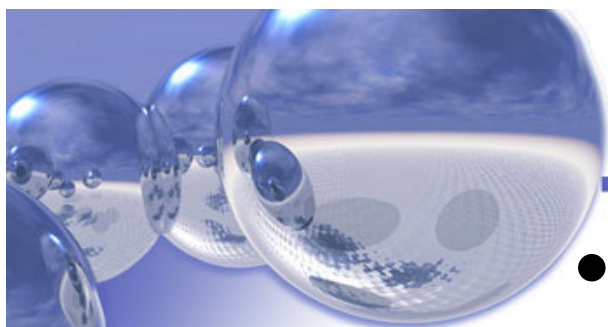


Concern about Food

- Concern about:
 - 70% ag. products' contamination
 - 69% water's contamination
 - 84% imported Chinese ag. products
- These factors:
 - with many children, homemaker,
 - facing water shortage,
 - in bad condition, high income



Excessive Worry



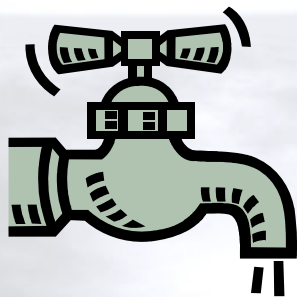
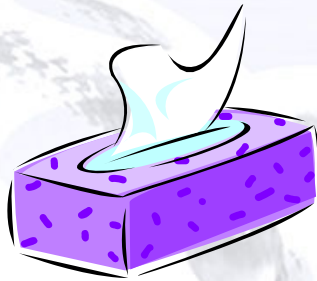
- About the ag. products purchase after shipment restriction release:
11% hold back for while
- These factors:
early age, too little preparation, shortage of mineral water, concern about ag. products' contamination
- Reliability as information source:
38% scientists, 16% government,
3% TEPCO

Buying Behavior

- Stockpile of mineral water (2L):
56% < five bottles, 30% six–ten bottles, 3% > ten bottles
- Stockpile ratio to usual:
64% same as usual, 12% 1.5times, 11% 2 times,..., 5% > 4 times
- Awareness of hoarding / buy up:
1.4% yes, **15% somewhat yes**, 27% somewhat no, **47% no**



Factors of Buying Behavior



- Stockpile of mineral water: with many **children**, **concern** about water, **shortage** of mineral water
- Stockpile ratio to usual: **early age**, homemaker, **too little preparation**, contribution, shortage of mineral water and paper products, concern about ag. products
- Awareness of hoarding / buy up: senior age, **no rolling blackouts**

Findings 1/2

- In the metropolitan area, the **radioactive / blackout issue** is bigger than the earthquake / tsunami.
- **Senior** citizen of large experience is **optimistic** to restoration.
- Worried about **ag. chemicals** rather than the radioactive contamination.
- **Excessive worry** about vegetable contamination **exists in early age**.



Findings 2/2

- Although the **individual stockpile was small**, many consumers took same behavior...the market got confused.
- Consumers who were **hoarding** are: early age, many children, little prep., rolling blackouts, shortage, concern about food's contamination.
- **Daily commodity rationing system of socially-vulnerable-groups priority is effective.**





Thanks