

The future of retail payments:
Opportunities and challenges,
ECB and OENB,
Vienna



Discussant comments on Do newspaper articles on card fraud affect debit card usage?

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The views expressed are those of the author and do not necessarily reflect
the views of the Bank of Finland.

**Based on daily
ATM and EFTPOS volumes and
published newspaper articles on card fraud**

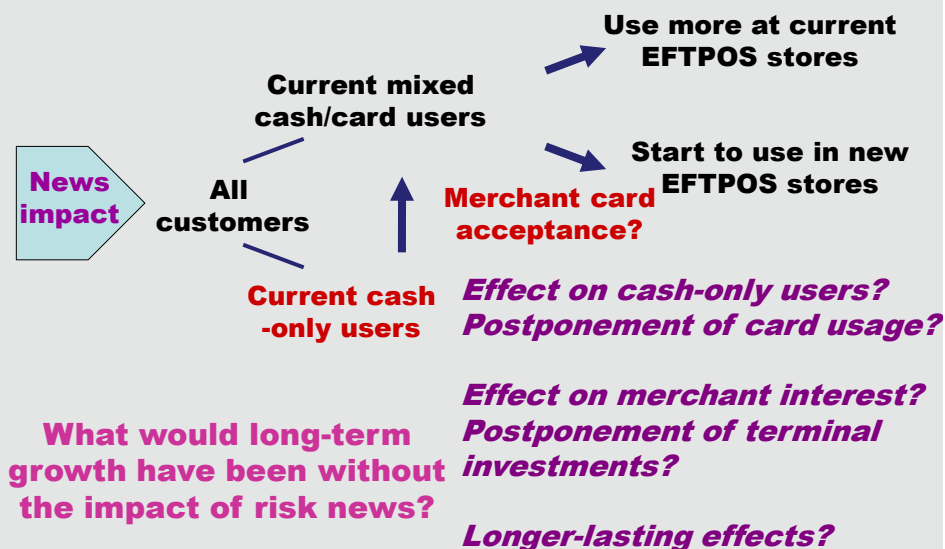
**a statistical effect is found
which lasts for one day
and implies that**

**an ATM fraud/skimming article
increases EFTPOS usage by 1.1% the next day
but reverts the following day**

**an EFTPOS fraud/skimming article
decreases EFTPOS usage by 0.8% during
publication day but reverts the next day**

**= about 50 000 transactions less on impact day
= 3 of 1000 inhabitants react**

The debit card / EFTPOS growth patterns and possible news impact



According to a Finnish study customers are very security sensitive when deciding to start to use new instruments (BoF DP 32/2008 Dahlberg-Öörni)

suggesting that the largest delaying effects will be found among non-card/cash-only users

Difficulty to control other factors with similar impact in statistical correlation studies

- ◆ News on cash robberies and other cash-related crimes?
- ◆ Card-promoting news in newspapers?
- ◆ Banks' card-promoting marketing campaigns?

- ◆ Customers' skimming liabilities = zero, Do they mind?
- ◆ Do they see a difference between ATM and EFTPOS skimming?

- ◆ Banks push skimming news in order to activate higher customer alertness to skimming devices?
- ◆ EMV cards have removed skimming possibilities?

Is the finding a real causal relationship or just coinciding developments due to other factors?

Some methodological comments

- ◆ Weighting newspaper articles according population coverage
- ◆ Weighting rainfall according to business hours and strength (eg light summer rains bring customers to shops)
- ◆ Checking for true randomness of publication days (news papers have publication patterns which may coincide with daily fluctuations of purchase patterns)
- ◆ Checking for payday patterns, other than monthly also public transfers
- ◆ NL is a small country with lots of commuters
- ◆ Plot diagrams of impact strength

The differences are rather small and small changes in the parameters could affect the results considerably (just 3 out of 1000)

Further research suggestions

- ◆ Checking with direct customer questionnaires that the statistical correlation is causal for current card customers
- ◆ Checking how the impact varies across merchant types (daily purchases, large-value purchases, web-purchases etc...)
- ◆ Checking the delaying impact on cash-only customers and the difference between ATM and OTC cash customers
- ◆ Checking the impact of news published on consecutive days
- ◆ Building a robust model for main external factors affecting ATM and EFTPOS daily usage fluctuations

Interesting micro-data -based data-mining research

Personally skeptical about causal effect:

**card customers read morning paper
covering skimming news and**

about 3 of 1000 decides

**that today I will by my gasoline
and/or lunch with cash
instead of the usual card,
but tomorrow no card risk?**