

How to validate a new MR tool? A case study in FMCG

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Innovate!

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Agenda

- ▶ A live demo
- ▶ Why developing and testing a new mr tool?
- ▶ How the test was set up
- ▶ Critical aspects regarding the use of the tool (trade offs)
- ▶ Results and concluding remark

Predicting consumer behaviour?

- ▶ Grocery shopping is for many customer a frequent activity and a low involvement activity.
- ▶ A grocery store is a dynamic environment (sales activities etc..)

What kinds of market research methods are capable of replicating customer behaviour in a grocery store?

What about traditional interviews (surveys)?

- ▶ *What do you plan to buy today?* (a question in survey)
- ▶ *What is in the shopping basket?* (behavioural data)

Do you use a shopping list for today's shopping?

Yes, I have planned everything or nearly everything:

38% (Segment 1)

Yes, partly and in addition I buy what comes to my mind
when I am in the store

40% (Segment 2)

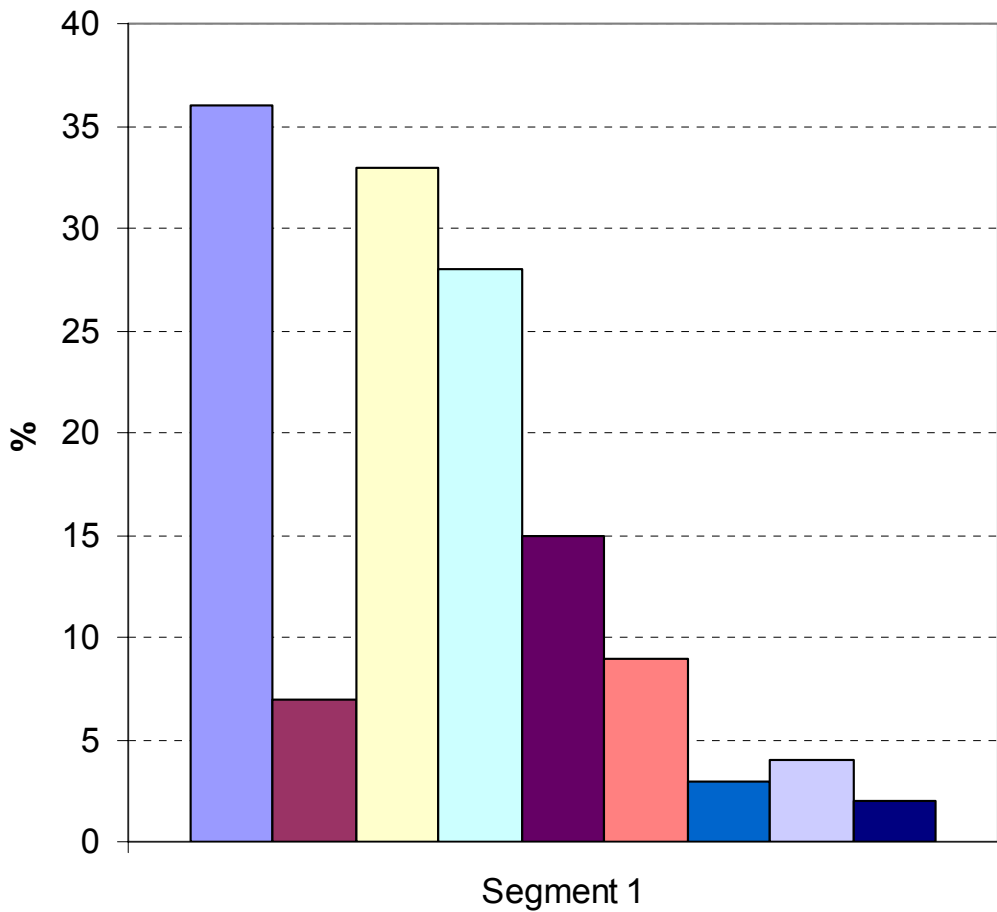
No, I do not plan in advance – I buy what comes to my mind
when I am in the store

20% (Segment 3)

The question was asked at the entrance of the stores,
603 interviews

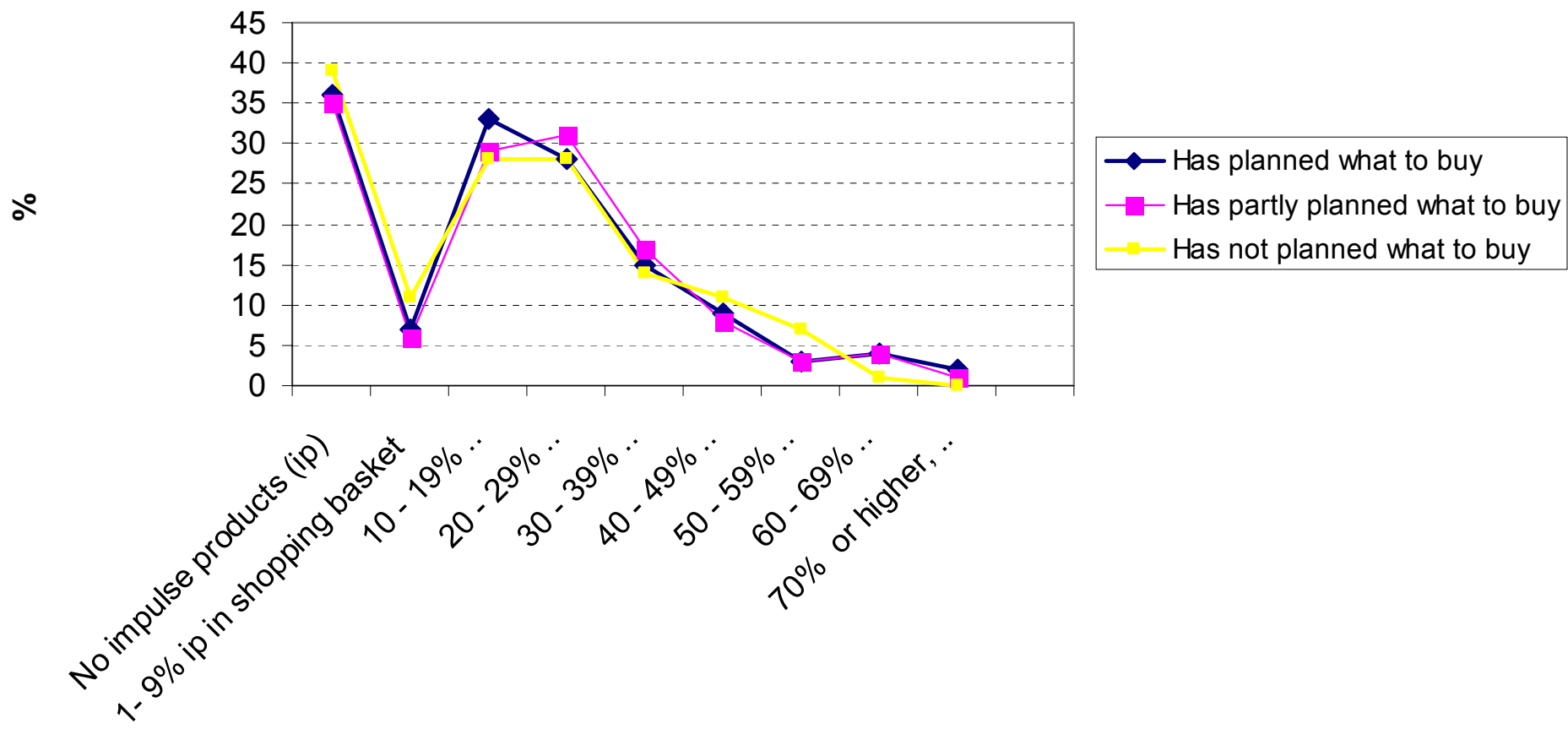
Impulse products in the shopping basket

**Segment 1
(has planned what to buy)**



- No extra products (impulse products) in the shopping basket
- 1- 9% impulse products
- 10 - 19% impulse products
- 20 - 29% impulse products
- 30 - 39% impulse products
- 40 - 49% impulse products
- 50 - 59% impulse products
- 60 - 69% impulse products
- 70% or more

Profile of the shopping baskets - for the members of the 3 segments





The impulse effect is strong (product level)!

- ▶ In all segments only 1/3 did not buy anything that was not planned
- ▶ The shopping basket profile is the same for the three segments

If you are doing mr and are interested in choices (what a customer buy), which method or tool should you choose?

New technology and better computers create opportunities

“In the computing world, few things have become as popular as computer games, and it's easy to forget just what a huge amount of time and money goes into producing new titles.”

Reid, in BBC's program Click Online

*“Computer games are engaging because they provide increasingly **realistic** and **lifelike** 3D visual environments, thus driving demand for home 3D entertainment.”*

Rosenbloom in Communication of the ACM, 2003

We decided to use:

▶ a **Quake 2** game engine from iD software

A pre-test 2002

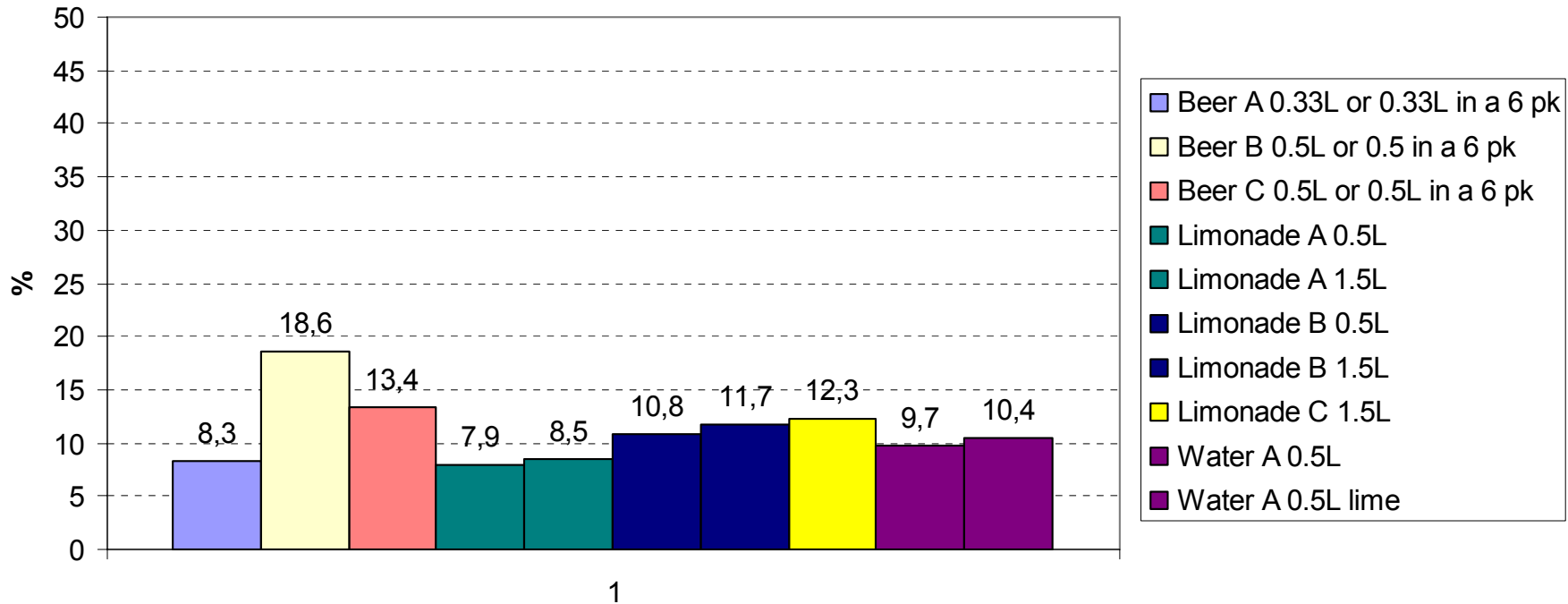
The validation test 2003

- ▶ **2 (local) grocery stores were replicated**
 - * **it contained all the beverage products available in the physical stores(beer, soft drinks, water)**
- ▶ **a four week (2 + 2) test-period**
- ▶ **customers intercepted at the entrance**
- ▶ **incentive 20 euros (gift card)**
- ▶ **only customers that planned to buy beverage products were invited to participate.**
- ▶ **The participants were given the impression that they were testing a new way of e-shopping (Internet)**

Result: 603 participants

A good response rate?

Sales figures
VR store vs. physical store for ten beverage products.
(VR store in % the grocery store)



The sampling issue is important, but for the testing in this project we looked at what the 603 did on the PC vs. what the same 603 did in the physical store.

The data for the analysis was collected in three stages:

- Stage 1 – Intercept and screening interview / pre-shopping interview
- Stage 2 – The use of the VR store and interview about the VR store (easy to use....)
- Stage 3 – Shopping in store and post shopping interview

Statistical analysis

Dataset 1 (Survey I)

7 questions

Screening question about product categories, only those that planned to buy beer, soft drinks or water were invited to participate

And:

Do you use a shopping list for today's shopping?

Dataset 2

The logdata from the VR – stores. The product the respondents did choose ("bought") in the VR store

Dataset 3 (Survey II)

5 questions

Feedback from the users about the VR-store

Dataset 4

The data from the receipts - the products that the customers bought in the store

Dataset 5 (Survey III)

7 questions

Post shopping interview. It contained a question about impulse products in the shopping basket

The market share tests

We assume that the VR store = physical store

* is it a good assumption?

Did the market share of product x in the VR store differ from the market share of product x in the physical store?

We could perform the statistical test 36 times based on the data in the log-files and the products in the shopping baskets (receipts)



Test results – the beer category

In store number A	In store number B
Test #1 – result as expected	Test #1 - result not as expected
Test #2 – result <u>not</u> as expected	Test #2 - result not as expected
Test #3 – result as expected	Test #3 – result as expected
Test #4 – result as expected	Test #4 – result as expected
Test #5 – result as expected	Test #5 – result as expected
Test #6 – result as expected	Test #6 – result as expected
Test #7 – result as expected	Test #7 – result as expected
Test #8 – result as expected	Test #8 – result not as expected

A good result in 3 of out 4 tests (75%)



Test results – the soft drink category

In store number A	In store number B
Test #1 – result as expected	Test #1 – result <u>not</u> as expected
Test #2 – result as expected	Test #2 – result as expected
Test #3 – result as expected	Test #3 – result as expected
Test #4 – result <u>not</u> as expected	Test #4 – result <u>not</u> as expected
Test #5 – result <u>not</u> as expected	Test #5 – result as expected
Test #6 – result <u>not</u> as expected	Test #6 – result <u>not</u> as expected
Test #7 – result as expected	Test #7 – result <u>not</u> as expected
Test #8 – result as expected	Test #8 – result <u>not</u> as expected
Test #9 – result as expected	Test #9 – result <u>not</u> as expected
Test #10 – result as expected	Test #10 – result as expected

A good result in 11 of out 20 tests (55%)

How good is this result?

100% is unrealistic

- * unless you believe that grocery shoppers plan carefully**
- * and that they buy what they have planned and are seldomly influenced by stimulies etc inside the store**

If we set up a similar test today, will we get at better result?



Was it easy or difficult to find the products you were looking for?

	All respondents	Using computer games less frequently than monthly or not at all	Using computer games monthly or more often
Very difficult	3%	3%	3%
Somewhat difficult	13%	14%	12%
Somewhat easy	38%	39%	34%
Very easy	46%	43%	53%
	603	403	200



These numbers can and should be reduced

The trade off: image quality vs. speed/ responsiveness

A clear image = easy to see and to choose a product

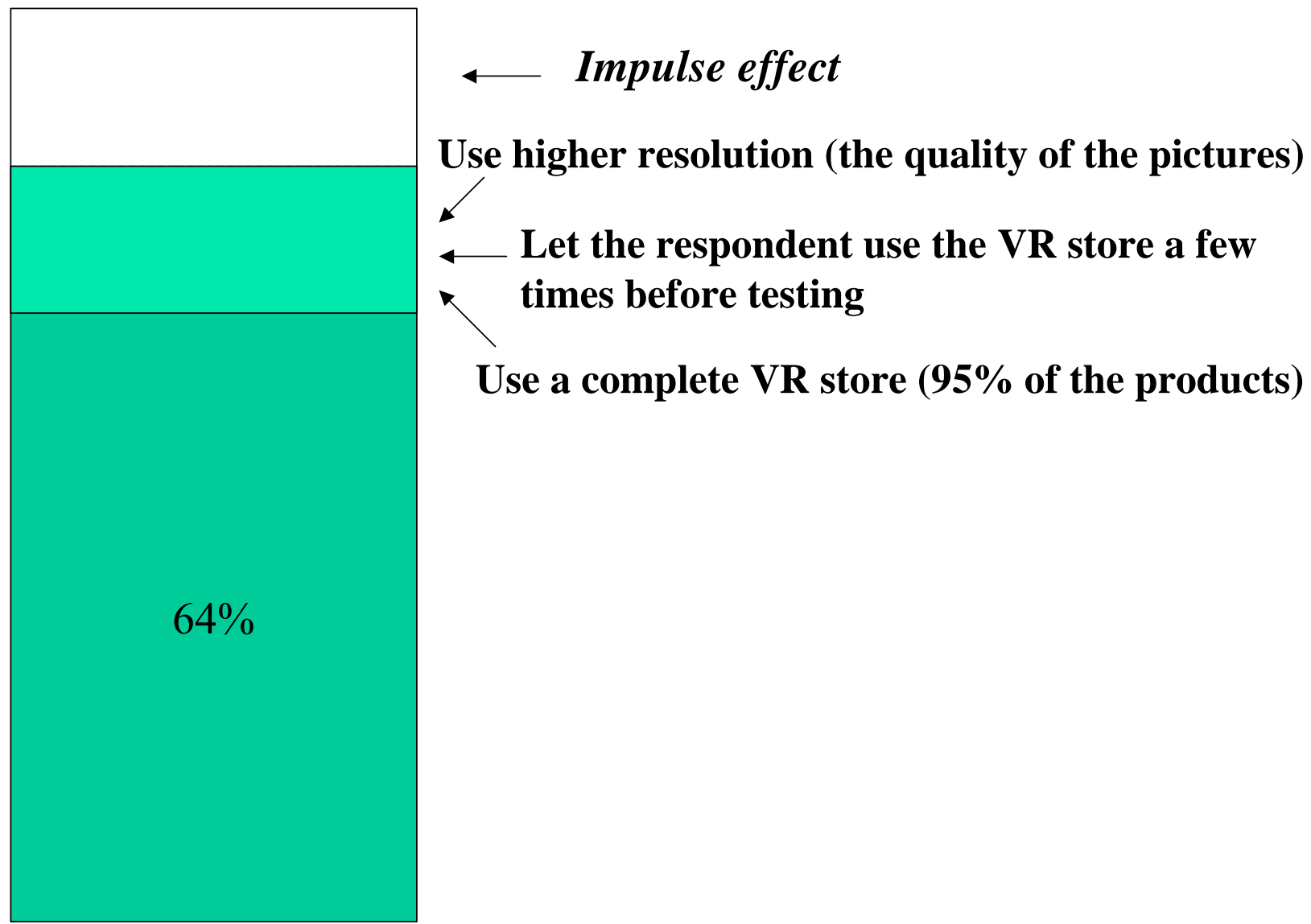


We did not ask you to pay for the goods in the shopping-basket on the computer. But we asked you to choose products that you are going to buy in the grocery store.

The choices you made in the store on the computer, to what extent do you think that these choices were influenced by the fact that you did not have to pay for these products?

- I did not pay much attention (which products to choose in the store on the computer) since I did not have to pay for these goods: **11%***
- I tried to behave accurately, to choose the goods I was going to buy in the store: **83%***
- Don't know: **6%***

Prediction of market share



Tests / areas of use

▶ Shelf impact

- Design tests
- Product tests

▶ In-store Promotions

▶ Tests with a category/space Management approach

Thank you for your attention!