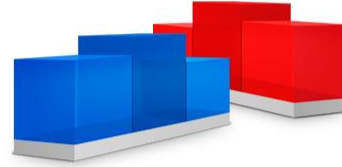


analyse²



Shopping – an analytical journey Ostlemise analüütiline teekond

4.Toidutööstuse ja kaubanduse koostöö konverents: Efektiivsus ja jätkusuutlikkus tarneahelas

Juha Vesanto

27.10.2017

From shopping mission to basket – and back

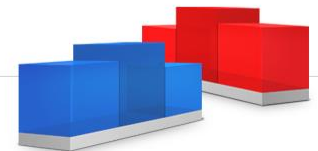
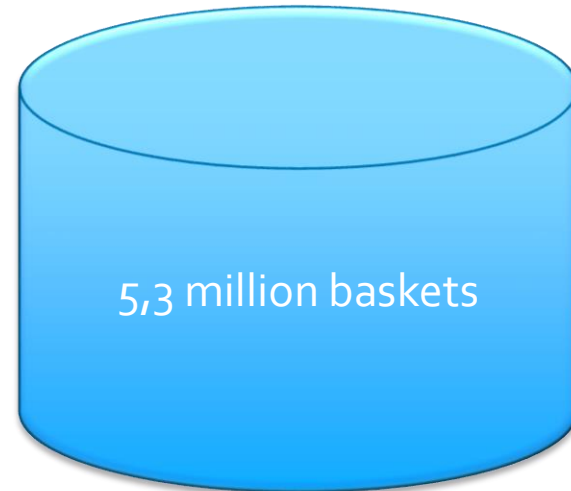
Survey: shopping missions
in grocery shopping



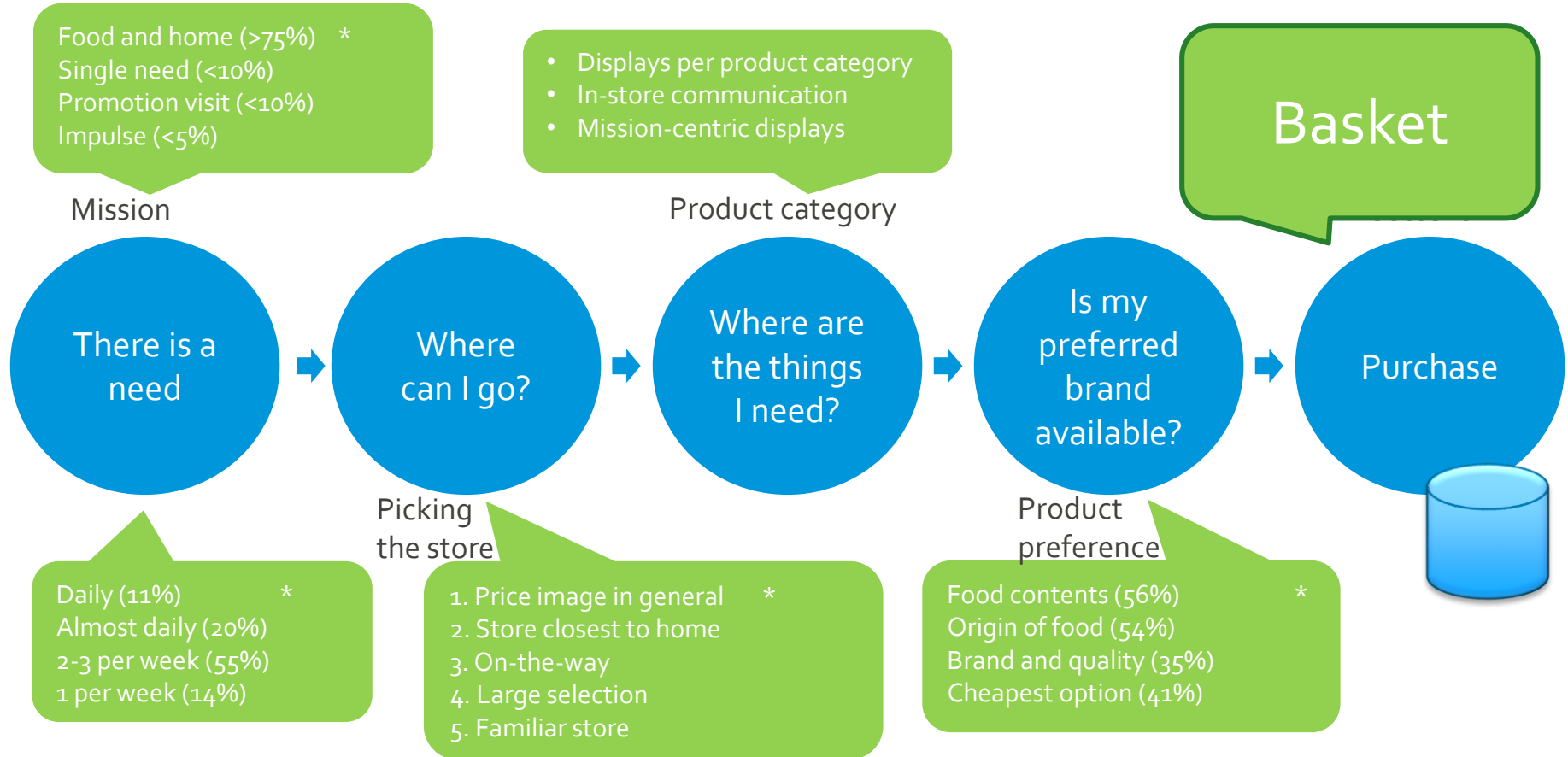
33 Company
Ostopolkuja Päivittäistavara kaupassa (2015)

VS

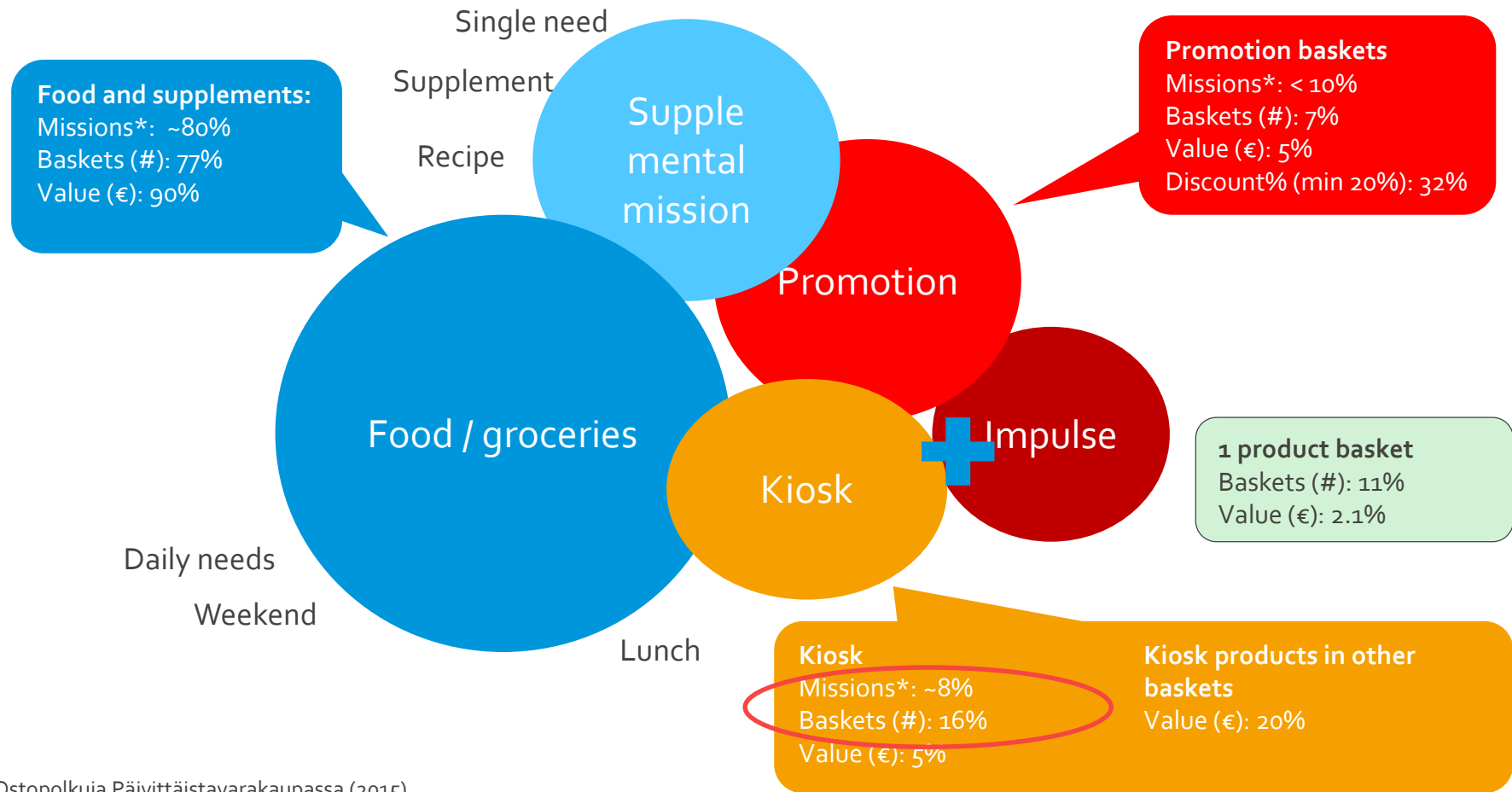
Basket segmentation and
analysis of real baskets



Mission... ...and what actually happened



The complete mission of a store visit



*) Ostopolkuja Päivittäistavara-kaupassa (2015)



The complete shopping mission is a combination of different kinds of needs and the products matching those needs

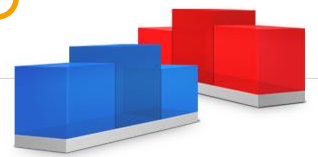
$$M = \bigcup_i \text{mission}_i$$

\Leftrightarrow

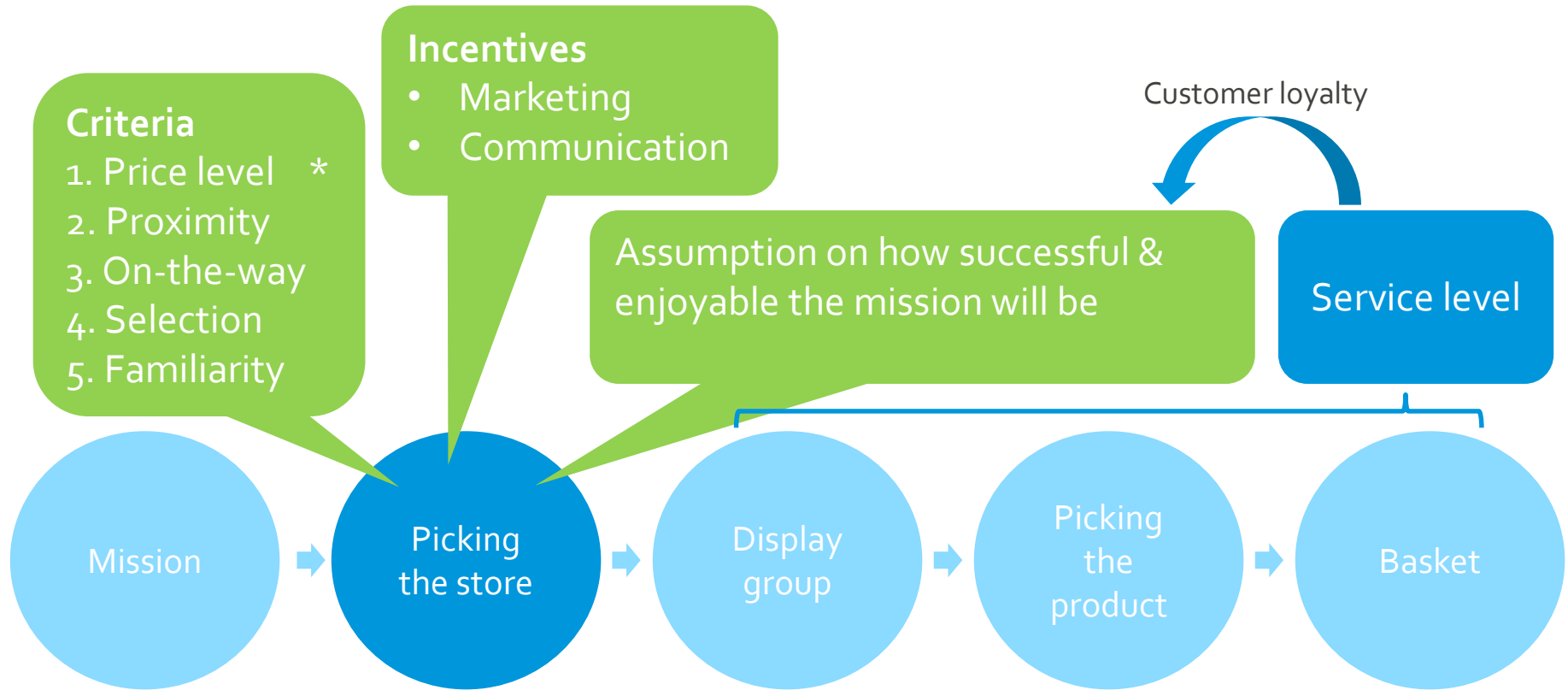
$$M = \bigcup_i \{\text{product}; P(\text{product}|\text{mission}_i)\} = \bigcup_i \{p; P(p|m_i)\}$$

Complete mission


Match between product and mission



Picking the store



*) 33 Company: Ostopolkuja Päivittäistavarakaupassa (2015)



Math
Warning

Picking the store is a combination of the base criteria and the assumption on how successful the complete mission will be

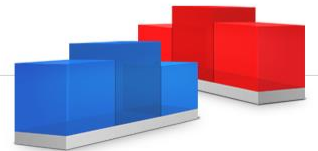
$$P(\text{store}|M)P(M) = P(\text{store})P(M|\text{store})$$

Pick the store

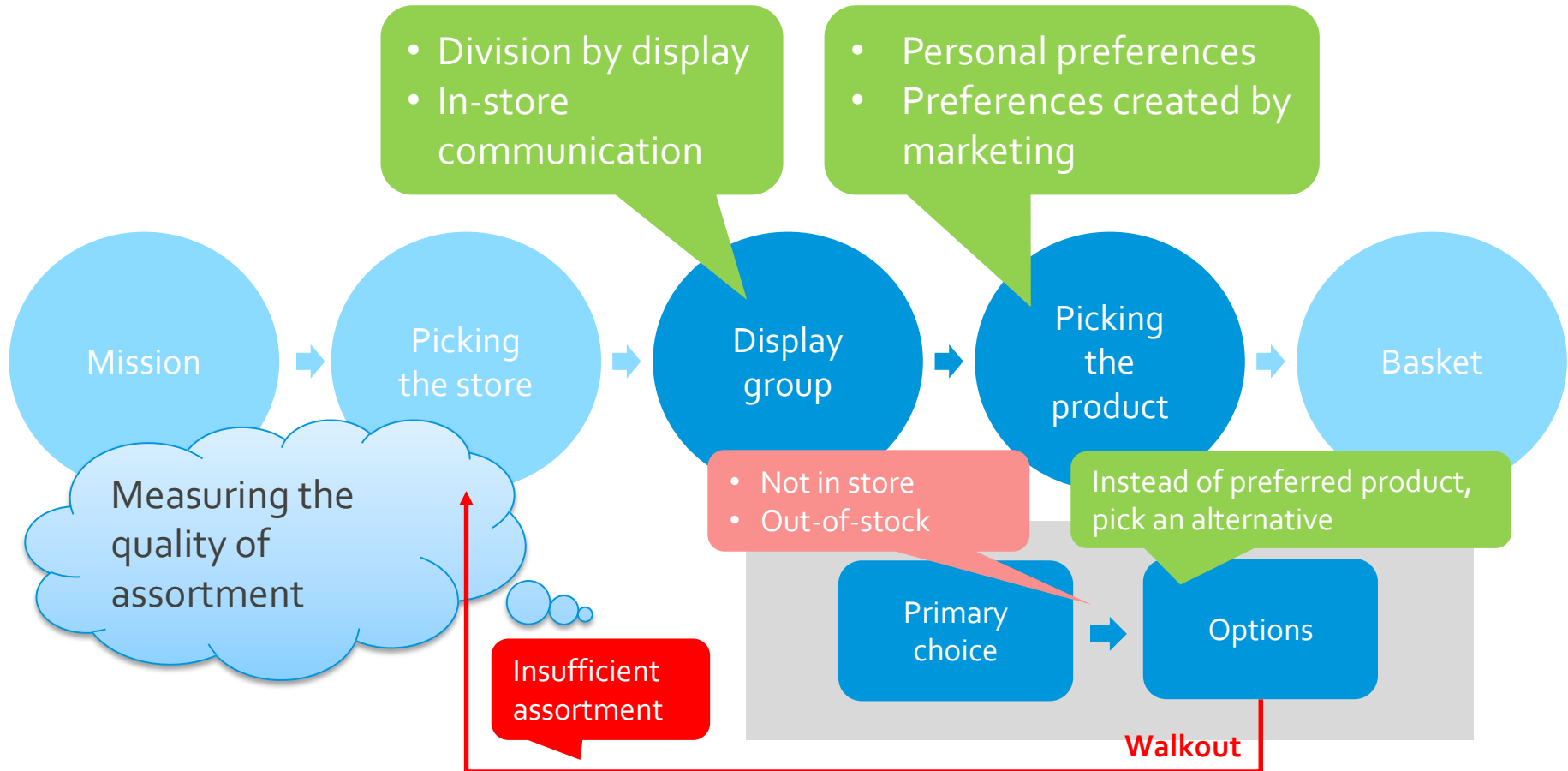
Mission

Base criteria

Assumption on
mission success



Picking the product

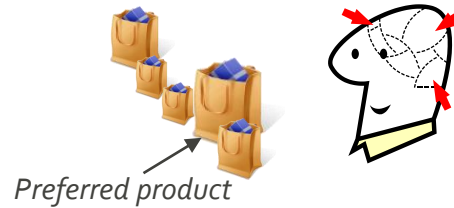


"Two-attempt" - model

1 Assortment in store



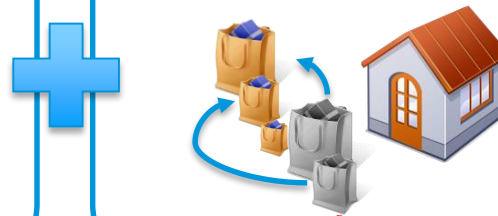
2 Consumer has certain product preferences



3 Part of the demand is directly satisfied



4 Some part is satisfied by secondary alternatives

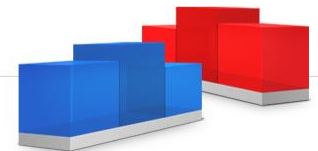


Indirect demand

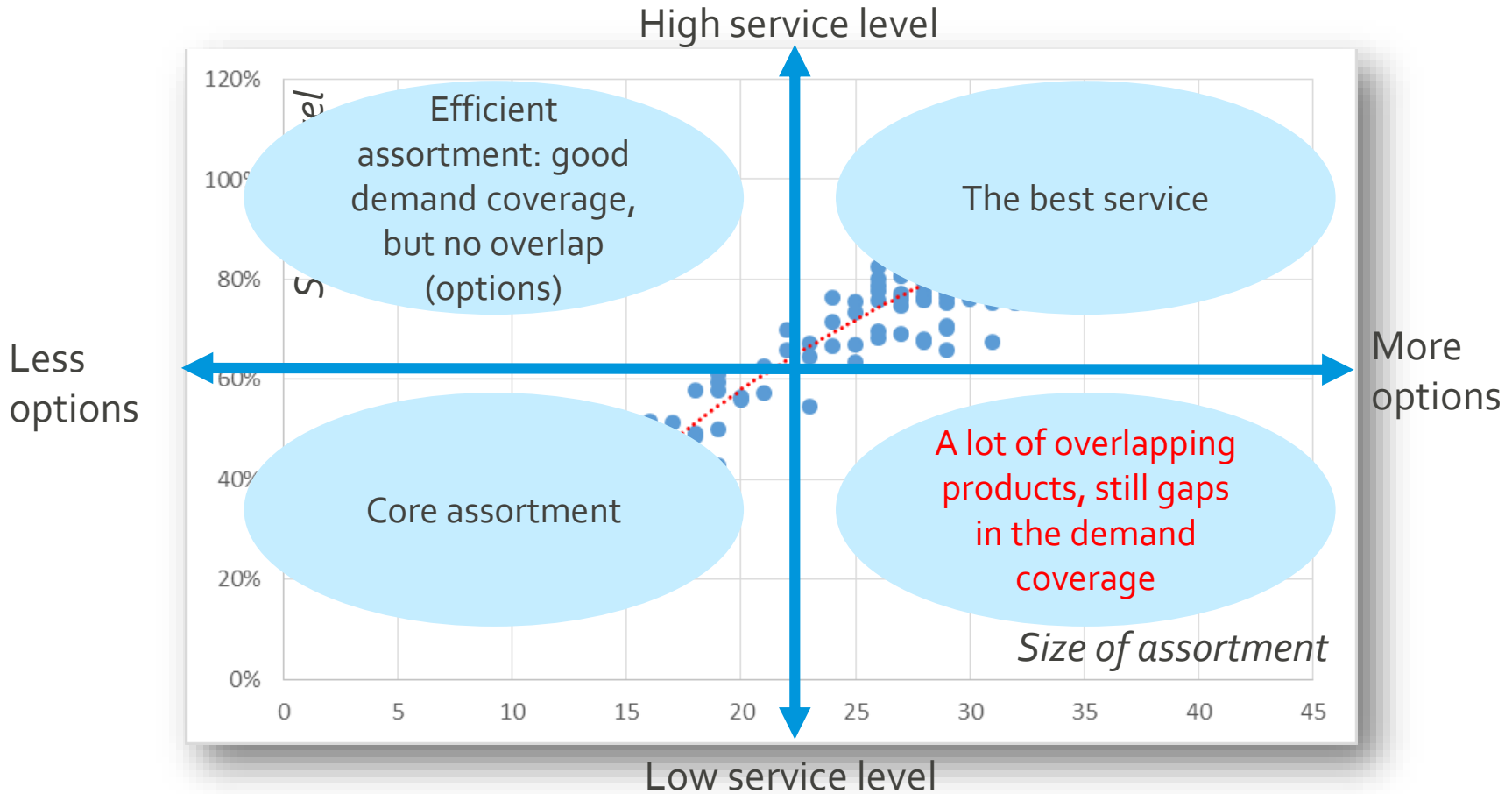
5 Product sales

Unsatisfied demand

...the rest will walk away

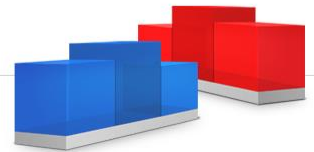


Assortment quality



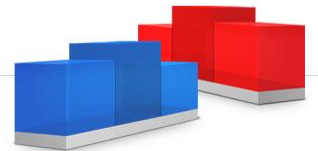
Analysis of baskets

- 5,3 million baskets (tickets)
 - 40 million products (ticket lines), 7.3 products per basket
- Five basket types
 - Promotion basket – discount from total basket value > 20%
 - Kiosk basket – “kiosk” category products > 80% of value
 - Big basket – big value and/or large amount of products
 - Midsized basket
 - Small basket – single need



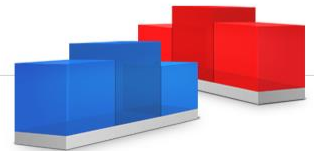
Discount basket

- Definition: Discount from total basket at least 20%
- Properties
 - Ratio: 6.6% of baskets, 4.5% of value
 - # products: 5.8, out of which half were on discount
 - Average discount (of basket value) : 32%
 - Stores: share of hypermarket type stores emphasized: 10%



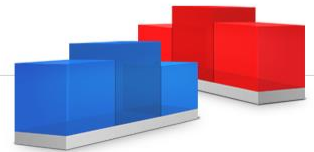
Kiosk basket

- Definition: “Kiosk” product category product share at least 80%
 - Ice cream cones etc, Service desk (fresh buns etc), Hot items from the grill, Snacks & bars, Buns, Candy etc, Smoothie, Juices, Weight control, Sport recovery drinks & bars, Tobacco, Soft drinks
- Properties
 - Ratio: 16% of baskets, 4.9% of value
 - # products: 2.4, hardly any product on discount
 - Stores: ratio of local stores emphasized: 20%
- Note:
 - The proportion of “kiosk” product categories from the total basket value: very steady across all store types



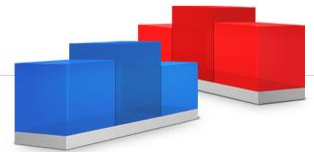
Food and supplementary

- Covering bid, mid-sized and small baskets
- Properties:
 - Ratio: 77% of baskets, 91% of value
 - # products: 5 (pieni), 14 (keskikokoinen), 27 (suuri)
 - Stores: hypermarket type stores had larger proportion of big baskets (10%, vs local stores 3%)
- Notes:
 - 13% of items had some discount, the total discount 4% on average
 - On weekends, the size of baskets increases a bit



Some things to take home

- The data-based basket analysis and results from the survey were a good match
 - Snack / impulse –type of buying is **actually** a lot more common than people tend to admit (8% in survey, 16% in basket analysis)
 - In data-based analysis, the primary mission is still hard to identify
- The results of the basket analysis are useful, but not very surprising as a whole
 - However, they are based on data – not on gut feeling
 - The most useful perspectives always start from a concrete actionable question or use case



Thank you!

Juha Vesanto

Director of Analytics

Analyse²

