

The “small” step from Dynamic Pricing to Dynamic Personalized Pricing: a company and customer perspective

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Agenda

- 1. Status quo: Dynamic Pricing in different industries**
 - 2. The Core: identifying the consumers willingness to pay (WTP)**
 - 3. Example for price discrimination success stories and failures**
 - 4. Limitations to price discrimination from the customers' perspective**
 - 5. Outlook**
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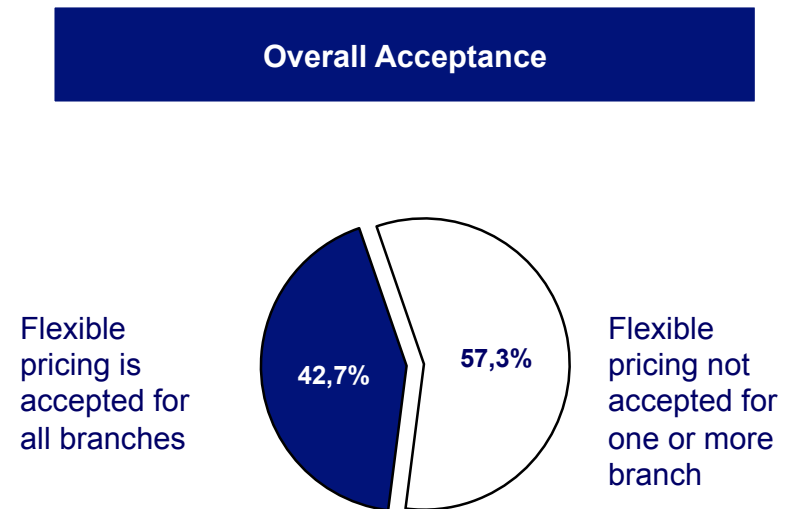
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Although Dynamic Pricing is widespread across different branches there is no clear acceptance among consumers

Consumers' perspective: acceptance of flexible pricing among German consumers¹⁾

Products/branches	Acceptance ²⁾		
Flight tickets	41%	36%	23%
Gasoline at the gas station	32%	35%	32%
Hotel accommodation	37%	40%	23%
Train tickets	35%	35%	30%
Supermarket food	30%	35%	35%
Electrical appliances (eCommerce)	29%	40%	31%
Rental car	28%	43%	29%
Restaurant food	21%	38%	41%

Accepted (top-2) Not accepted (low-2)



- 1) More and more providers set the price for a product based on demand firmly, that prices for one and the same product vary. Please tell us first product categories you have already experienced flexible prices.
- 2) Just tell us how much you accept such a flexible pricing for one and the same product in the following categories. (Scale 1 = "I fully accept" to 6 = "I do not accept at all")

Source: Krämer, Friesen and Shelton (2017)

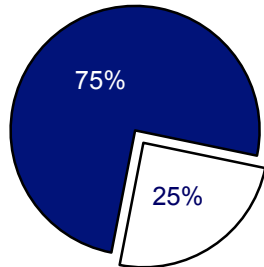
Consumers are not enthusiastic about prices that change (frequently) over time, but are willing to accept it ...

Example Amazon customers: attitudes concerning flexible pricing¹⁾



Experience with price variations?

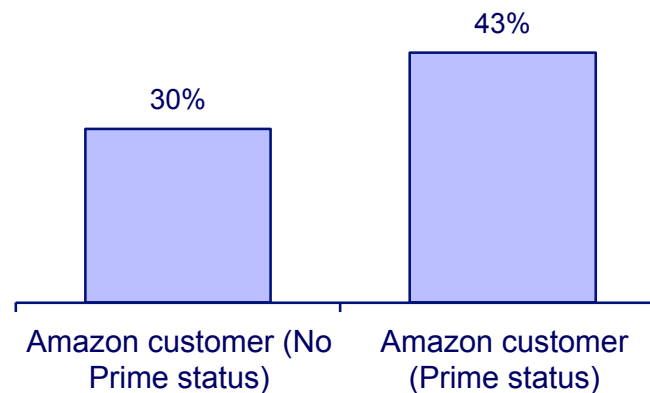
Yes, I have noticed that prices on Amazon vary



No, I have not noticed that prices on Amazon vary

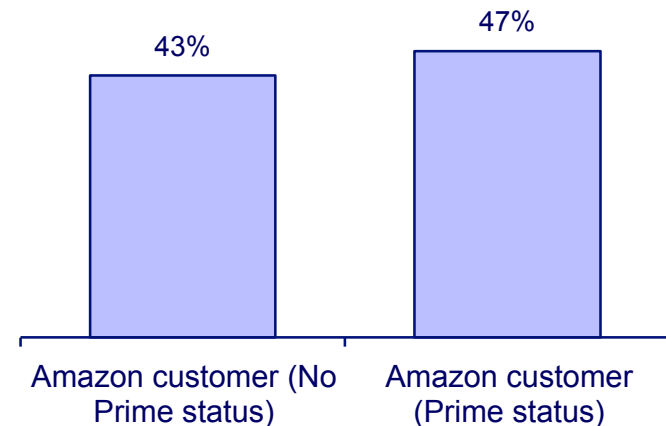
I like price changes, because then I can **wait** for the **cheapest** price for me

% Agreement



I would appreciate if I could see the **price history** of the last days/weeks directly

% Agreement

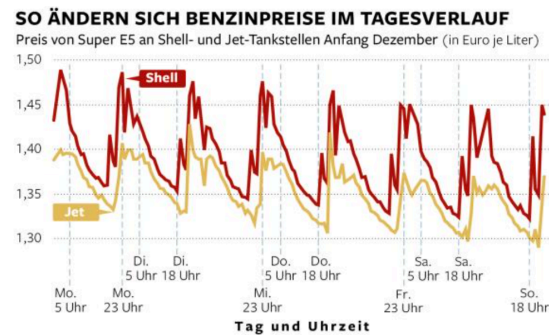


1) Have you noticed that prices on Amazon vary? And: What statements do you agree about price changes on Amazon?

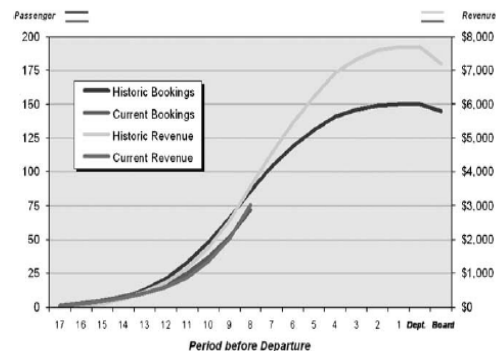
... provided consumers understand the pricing mechanism and perceive it as fair

Consumers' perspective: understanding the pricing mechanism

Price variation over time: fuel at German gas stations 2015

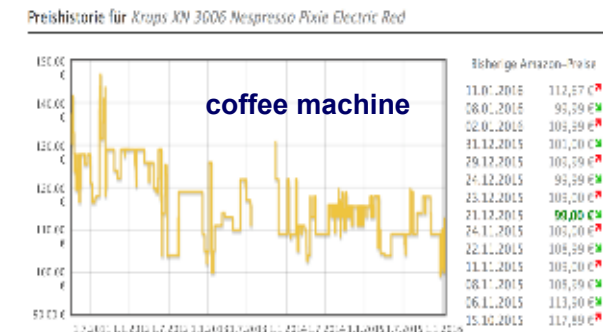


Typical ticket price function (example Airlines)



Source: Krämer, Friesen and Shelton (2017)

Price variation over time (coffee machine and camera, Amazon.de)



Individualized couponing (example Deutsche Bahn)

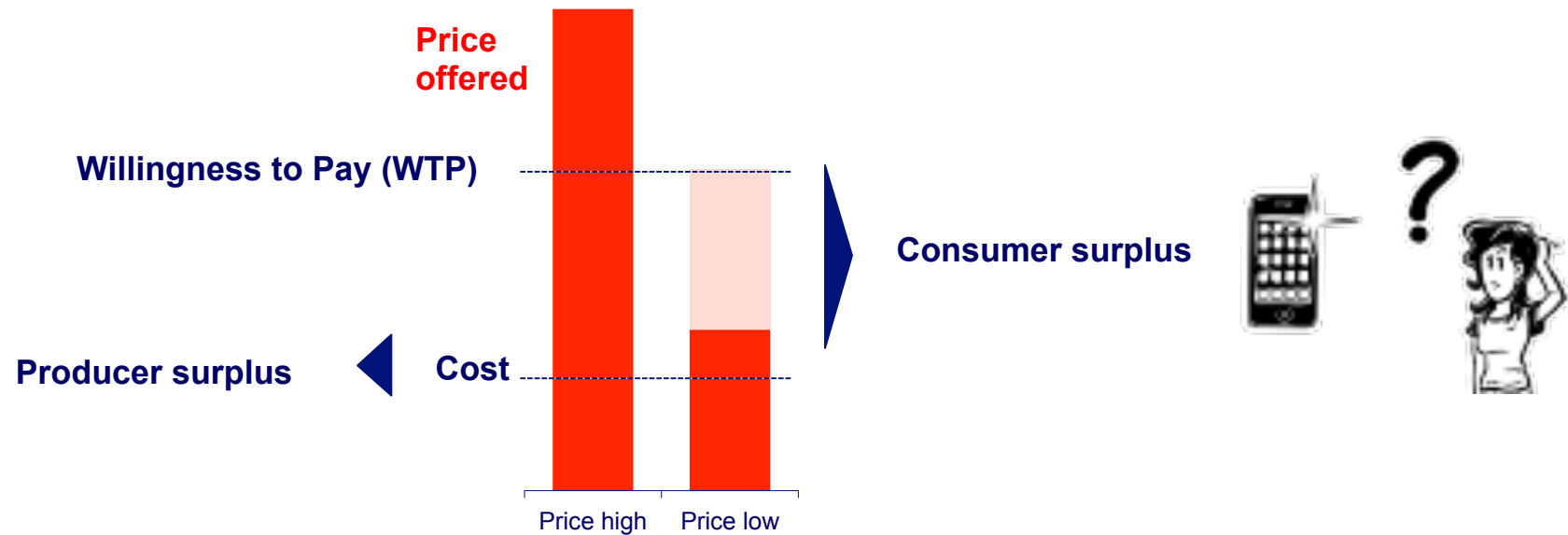


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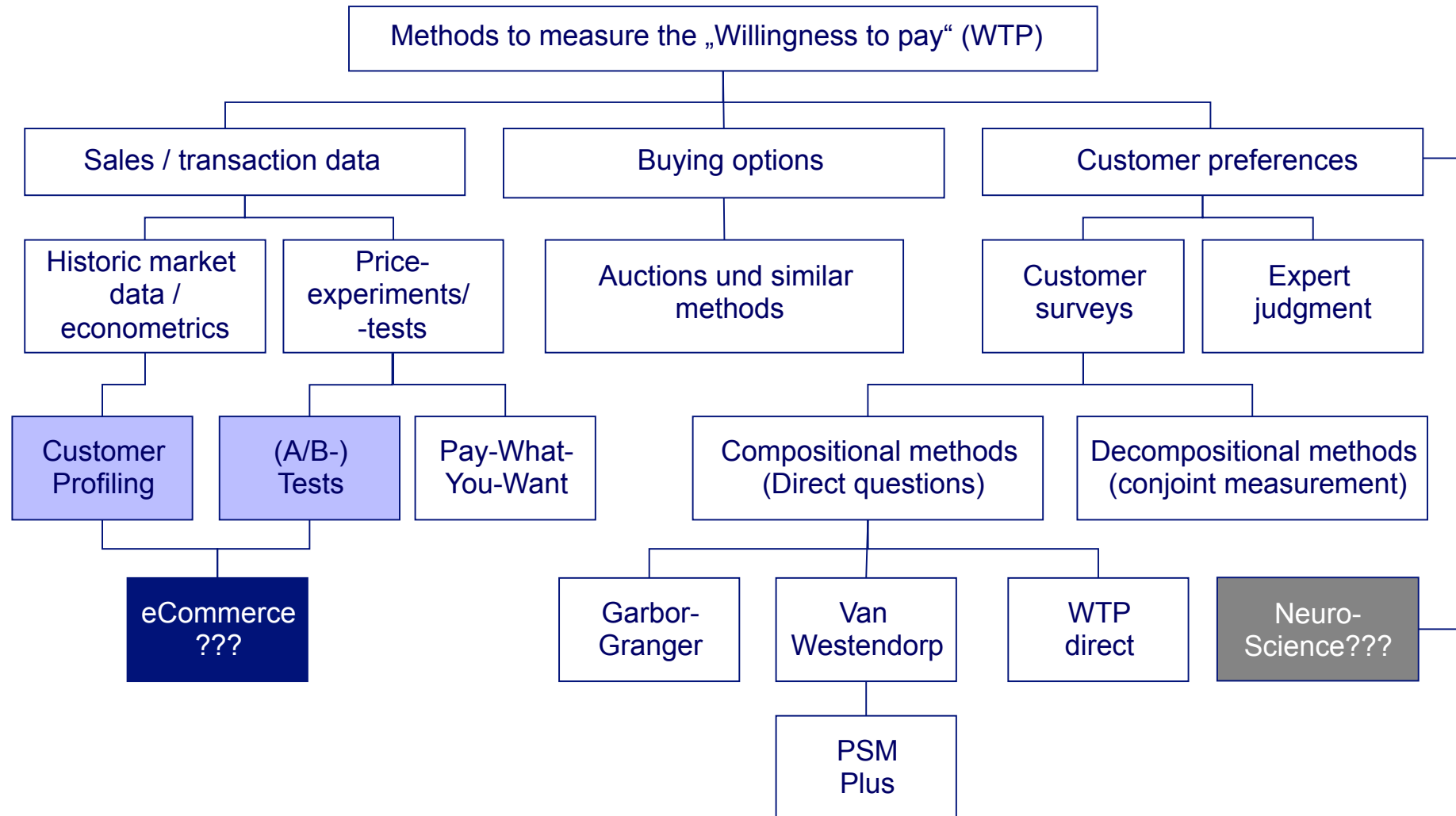
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Willingness to Pay: the maximum price the consumer does accept

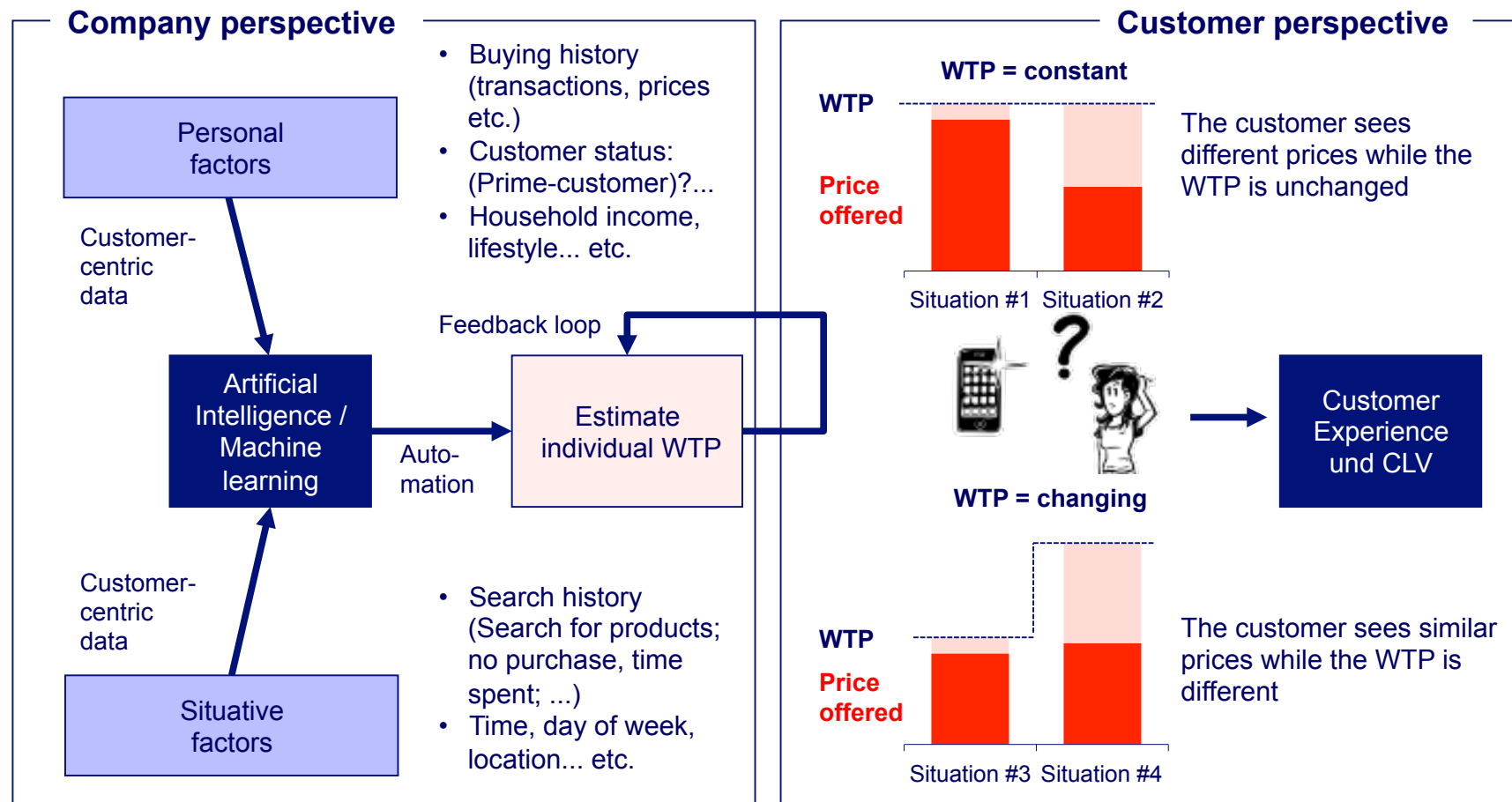
Defining “Value to to customer” and “Value of the customer”



There are many methods to measure the Willingness to Pay (WTP) – focus on price tests and customer data



Dynamic prices must always be evaluated from a company and customer perspective – particularly in case of personalized prices



Company perspective: Two-thirds of the price managers participating in the survey do not use any form of dynamic pricing

View of pricing managers on Dynamic Pricing



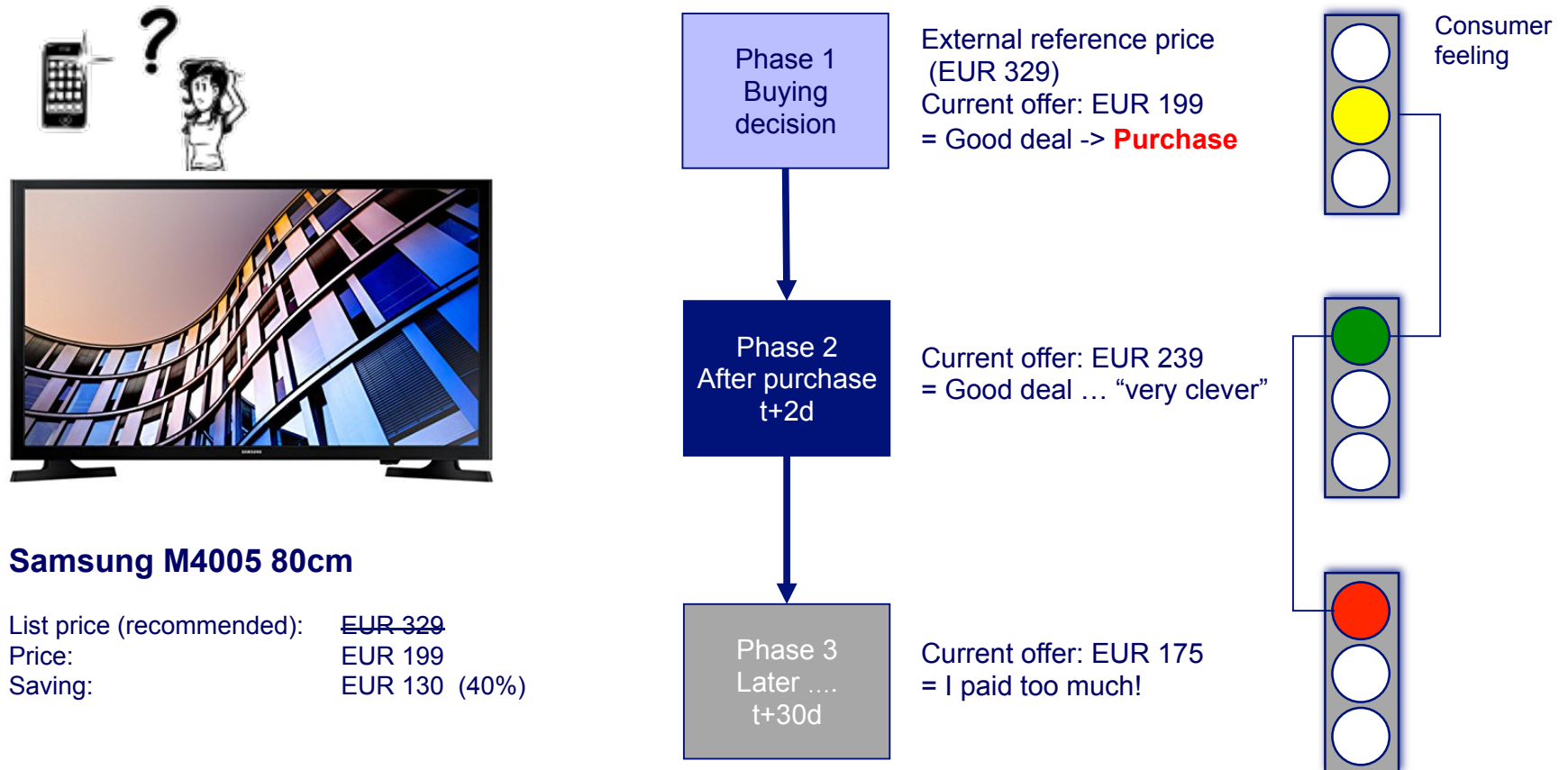
1) Do you already use the method of "dynamic pricing" or price differentiation in the company?

2) If no use of dynamic pricing: Which of the following statements apply to you to what extent? Dynamic pricing ... Percent "Fully Applies" and "Applies Partly".

Source: Krämer, Kalka and Ziehe (2016)

Customer perspective: There is more to consider than WTP - complex dependencies between pricing, CX and Customer Lifetime Value

How do consumers perceive price changes (before and after purchase)?

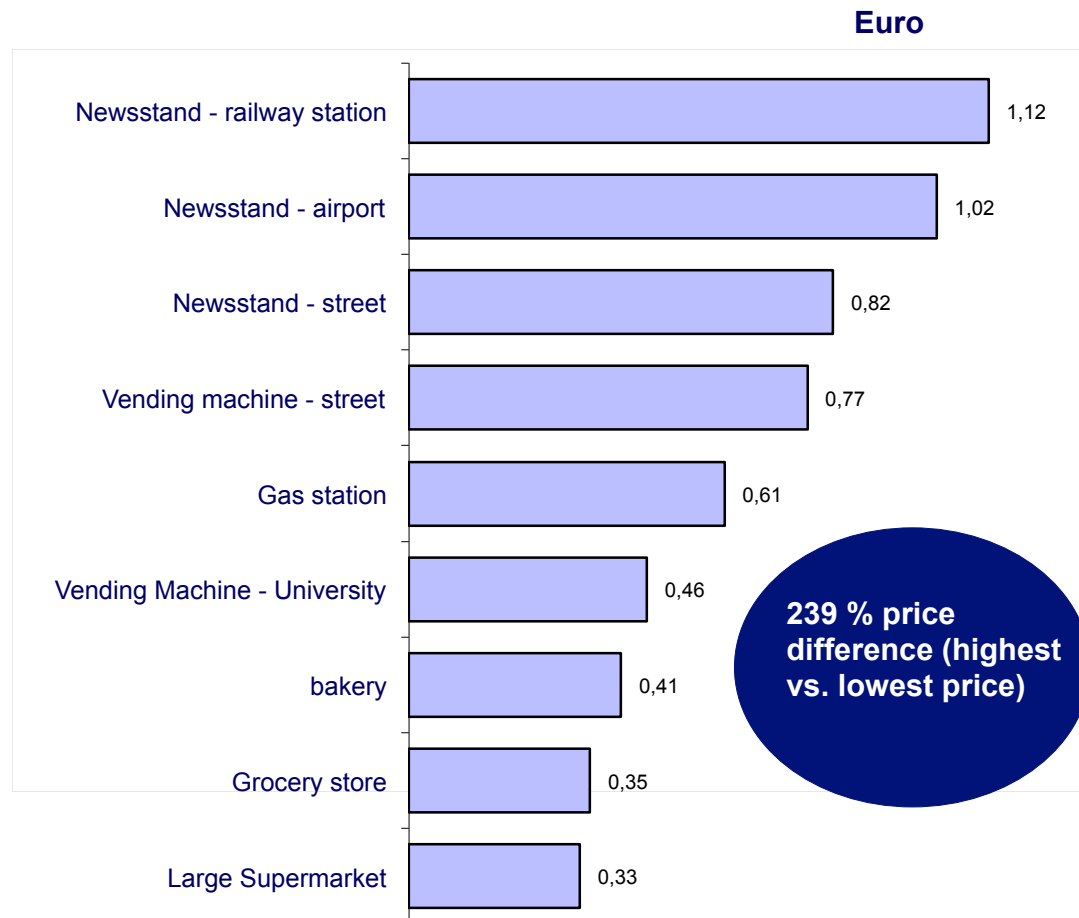


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Price differentiation as an effective tool to increase revenues - example Coca-Cola

Prices for a 0.33 l can of Coca-Cola



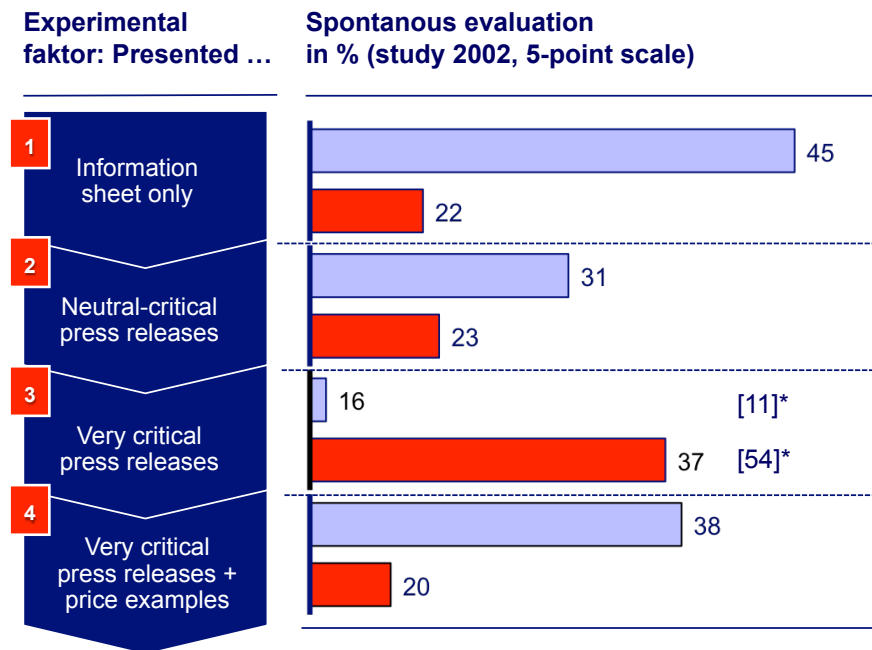
Another attempt at differentiation (1999)



The higher the outside temperature, the higher the price for the cooled Coca-Cola
→ has not prevailed!

Deutsche Bahn introduced Dynamic Pricing in Oct. 2002 and was forced to modify the new tariff system only a few months later

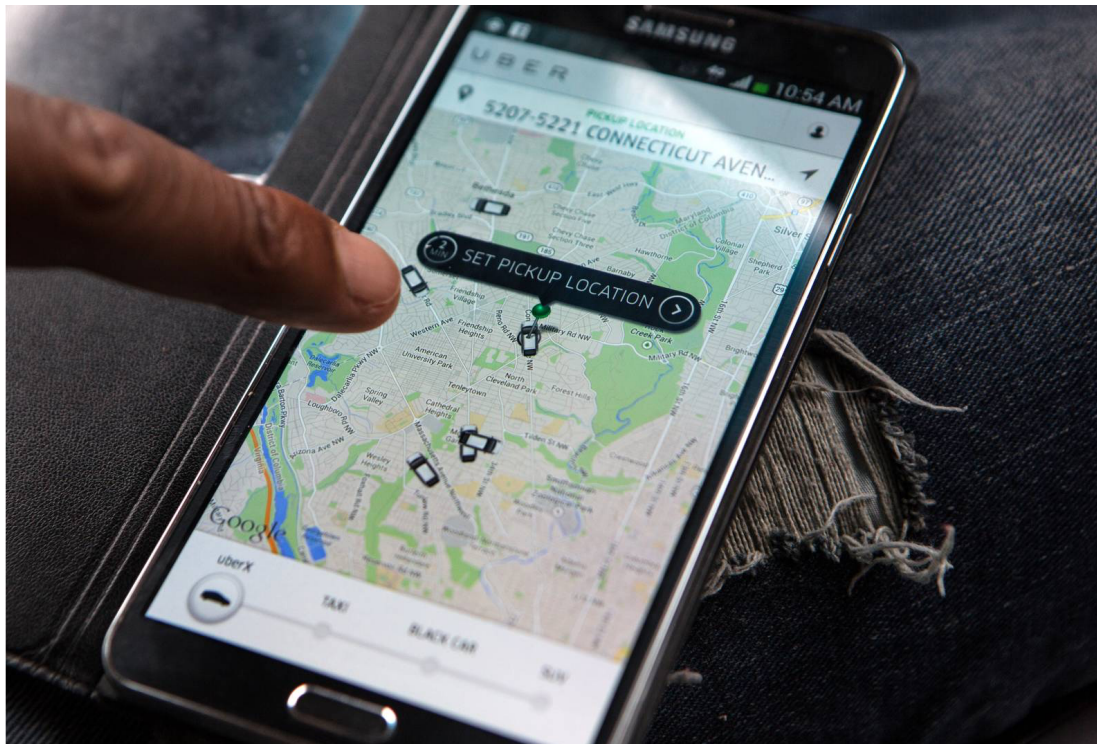
New price and tariff system: Deutsche Bahn 2002



Does (strongly) appeal to me
Does not (at all) appeal to me

Uber's surge pricing: a core element of Uber's business model

Dynamic Pricing: low prices stimulate demand – high price stimulate capacities



Mechanism:

Uber's pricing algorithm automatically detects situations of high demand and low supply and hikes the price in increments, depending on the scale of the shortage. Those higher prices are supposed to make drivers more likely to bite, putting more Uber cars on the road when they're most needed.

Problem:

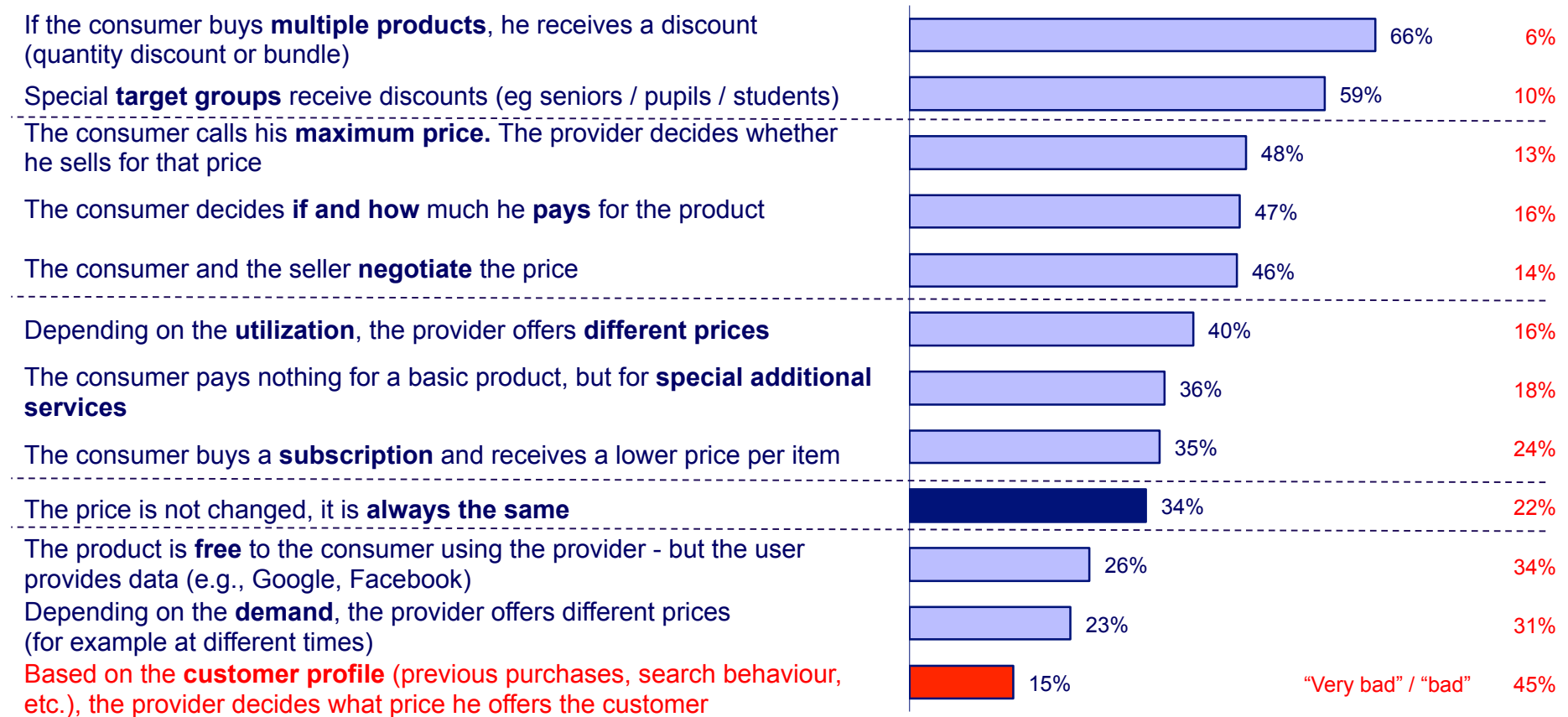
Australian hostage crisis in Dec. 2014

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Consumers rate models to vary prices differently – pricing based on customer profiles is particularly critical

Acceptance of price models from consumers' perspective („very good“/“good“ in %)¹⁾



1) Question: "Lately, different pricing models are being discussed. How do you rate these? "(Scale 1 =" very good" to 6 =" very bad ")

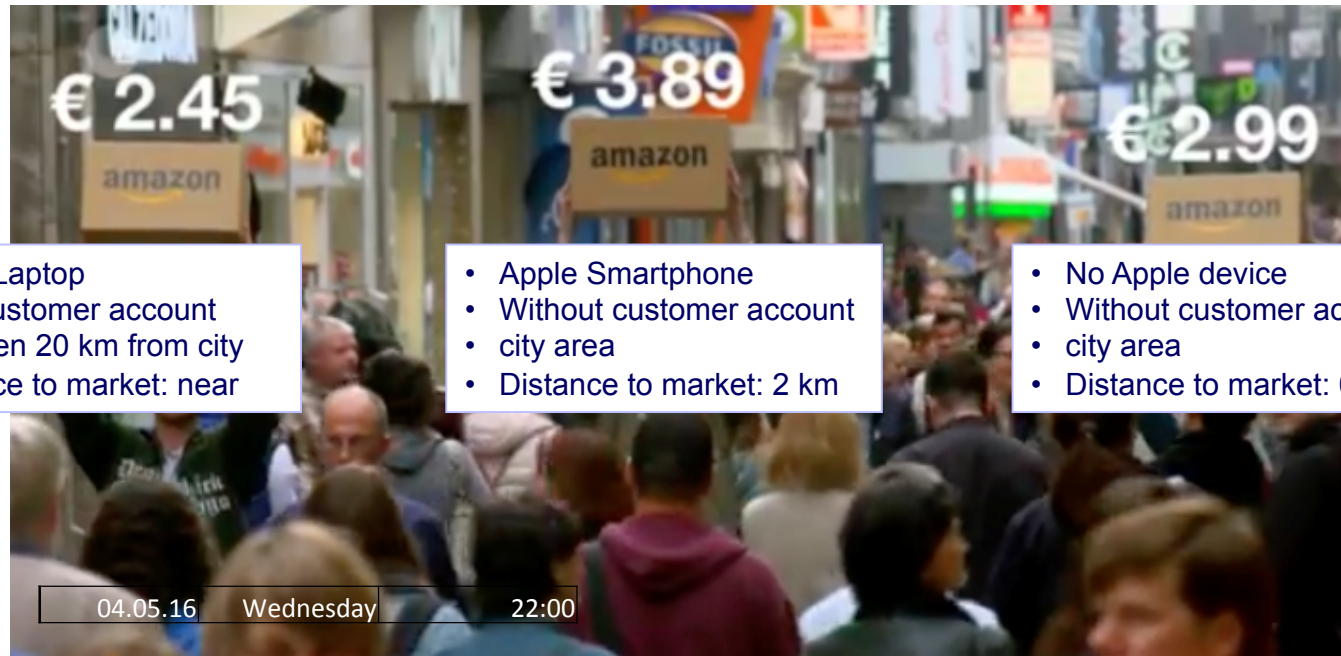
Source: **exeo** Strategic Consulting AG / Rogator AG

Amazon: Head & Shoulders Classic clean, 300 ml with a price range from € 2.45 (Index=100) to € 3.89 (Index=159)



Example Amazon: Price differentiation at the same time of request

Range from € 2.45 –
€ 4.99 (average
€ 3.55) in May 2016



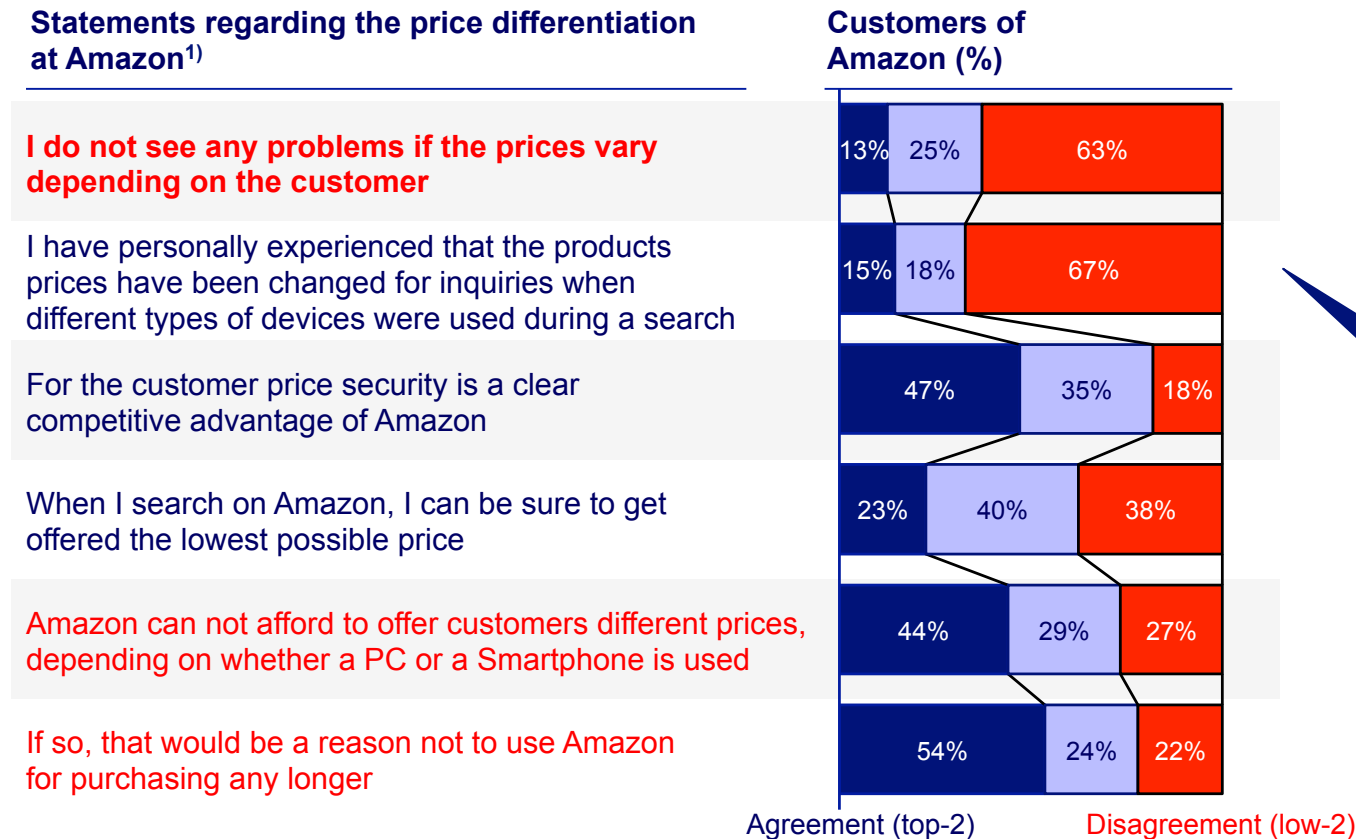
- Apple Laptop
- With customer account
- less then 20 km from city
- Distance to market: near

- Apple Smartphone
- Without customer account
- city area
- Distance to market: 2 km

- No Apple device
- Without customer account
- city area
- Distance to market: 0 km

Most Amazon customers indicate problems with prices that vary by customer

View of Amazon customers on dynamic pricing¹⁾



When repeating this study in 2016, the results were confirmed. In addition, the statement "I have not made any purchases on Amazon because I annoyed me about changing prices" was used. Here, 22% of Amazons' customers approved.

1) In Internet blogs is discussed that Amazon customers get different prices displayed, depending on how you are looking for and from which device. Do you agree to the following statement or not? (n=500 interviews; Germany 2015).

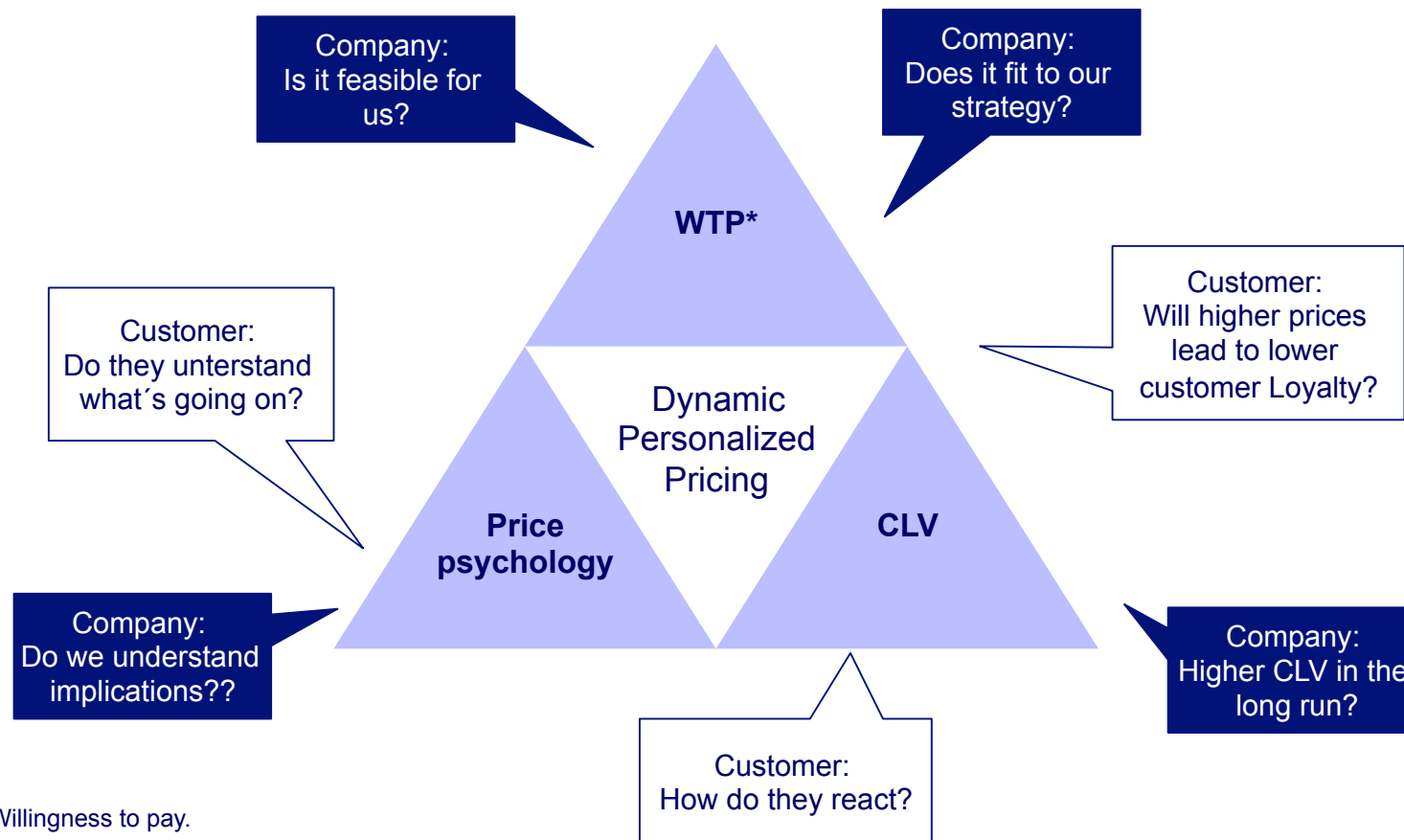
Source: Krämer, Kalka and Ziehe (2016)

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Dynamic Personalized Pricing and the key dimensions for pricing: Some (relevant) open questions ...

Key dimensions when introducing Dynamic Personalized Pricing



* Willingness to pay.

Source: **exeo** Strategic Consulting AG

Open Questions? Please Do Not Hesitate To Ask ...



Further literature concerning Dynamic (Personalized) Pricing

Literature

- Krämer, A. (2018): Dynamic Personalized Pricing – The Next Generation of Pricing?! Presentation Annual meeting of GOR-AG Pricing und Revenue Management, Hannover Jan. 19, 2018.
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- Krämer, A., Kalka, R., Ziehe, N. (2016): Personalisiertes und dynamisches Pricing aus Einzelhandels- und Verbrauchersicht. Marketing Review St. Gallen, 33 (6), S. 28-37.
- Krämer, A., Kalka, R. (2016): How Digital Disruption Changes Pricing Strategies and Price Models. In: Khare, A., Schatz, R., Stewart, B. (Hrsg.): Phantom ex machina: Digital disruption's role in business model transformation. Springer 2016, S. 87-103.
- Krämer, A., Tachilzik, T., Bongaerts, R. (2016): Technology and Disruption: How the New Customer Relationship Influences the Corporate Strategy. In: Khare, A., Schatz, R., Stewart, B. (Hrsg.): Phantom ex machina: Digital disruption's role in business model transformation. Springer 2016, S. 53-70.
- Krämer, A. (2015): Pricing in a VUCA World - How to Optimize Prices, if the Economic, Social and Legal Framework Changes Rapidly. In: Mack et al. (Hrsg.), Managing in a VUCA World. Springer, New York 2015, S. 115 – 128.