Institute for Market-Oriented Management

Competence in Research & Management
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IMU Research Insights
007

Can service customers handle price complexity?

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Executive Summary

Relevance of Topic

Dividing one all-inclusive price into price components is often assumed to have favorable effects for firms. However, a large number of price components renders pricing schemes complex. This **price complexity** is difficult to handle for customers.

→ There is need to investigate how customers react to price complexity that arises from different pricing schemes.

Investigated industries

Complex pricing schemes are often found in service industries in which customers enter into an ongoing formal relationship with the provider, e.g. telecommunication, insurance, B2B services etc.

→ The present study uses the example of a mobile service provider.

Study Characteristics

Goal: Understand the impact of price complexity on perceived price fairness and attitudes towards the offer.

Method: Online experiment with 260 customers who were asked to evaluate two-year mobile phone offers that differed in the degree of price complexity.

Key Learnings

- Price complexity has a negative effect on customers' perceived price fairness and attitudes towards the offer.
  ⟶ Splitting up prices in multiple components may have serious drawbacks for firms.
- Customers with a low predisposition to enjoy complex thinking and problem-solving („need for cognition") show strong negative reactions to complex prices; customers high in need for cognition show positive reactions.
  ⟶ Service providers should carefully consider pricing practices that are perceived negatively by a large customer group.

Agenda

- Topic Relevance and Introduction
- Key Questions for Service Providers
- Study Characteristics
- Results
- Learnings for Managers
- References
- Contact and Further Information

Topic Relevance and Introduction (1/2)

Importance of complexity for customer behavior

Complexity poses "high cognitive demands are placed on the task-doer", but individuals' capabilities are generally limited.

(Campbell 1988, p. 43; Miller 1956, Malhotra 1982)

Research has shown that complexity can exhaust customers' information processing capabilities, leading to negative consumption experiences and dysfunctional decision making with negative consequences for firms.

(Iyengar and Lepper 2000)

→ Splitting up prices in multiple component may cause complexity that burdens customers in their evaluation of prices.

→ Little research has addressed **price complexity** and its effect on customer behavior.

Topic Relevance and Introduction (2/2)

Prices may be cognitively demanding!

Researchers agree that the way in which price information is presented influences customers' value perceptions as well as customer demand.

(Bertini and Wathieu 2008; Iyengar et al. 2011; Schlereth, Skiera, and Wolk 2011)

→ Whether the effect is positive or negative remains unclear, but previous research indicates that customers may have difficulties in evaluating multiple price components.

(e.g. Estelami 1997, 1999)

So far, previous research has not accounted for the complexity that customers face when they encounter pricing schemes with multiple components (see example).

→ Can prices be complex such that they exhaust customers information processing capabilities?

Example: Phone tariff of a German mobile service provider

Tarifpreis ohne Handy	statt 4,95 € 4,46 €[1)]
10% Online Rabatt bei Neuvertrag	12 Monate 10% Grundpreis sparen
Inklusivminuten in alle Netze	30
Weekend Flat ins Festnetz und ins Telekom Mobilfunknetz	kostenlos
Kostenüberblick	
Ins dt. Festnetz	0,29 €
Ins Telekom Mobilfunknetz	0,29 €
In anderen dt. Mobilfunknetzen	0,29 €
Zur Mobilbox	0,29 €
SMS	
SMS Inland, alle Netze	0,19 €
Allgemeines	
Mindestlaufzeit	24 Monate
Bereitstellungspreis	24,95 €
Zubuchbare Optionen	
MyPhonebook	kostenlos
NEU: Mobilbox Pro	kostenlos
	Details
	Tarif buchen

Source: www.t-mobile.de (accessed 08/2011)

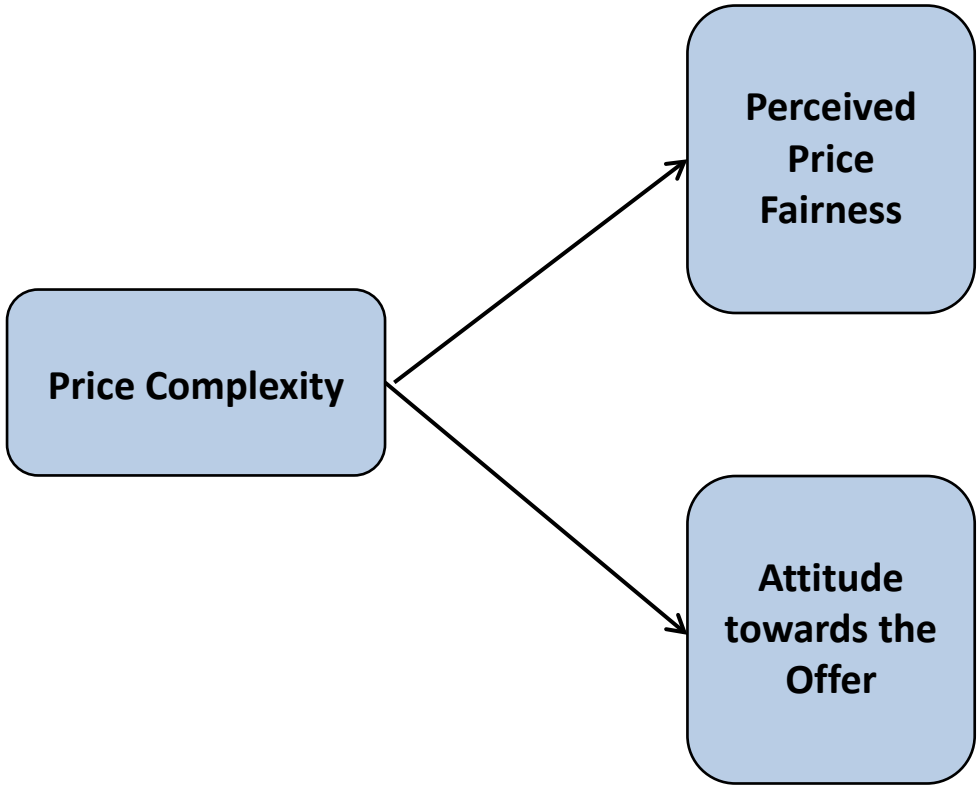
Key Questions for Service Providers

Key Question 1
What is the effect of price complexity on customers' evaluation of prices?

Key Question 2
Are there customer groups who can handle price complexity better than others?

Because price complexity is cognitively demanding, the general effort exerted to evaluate such a price can be interpreted as "costs of thinking".
(Shugan 1980, p.100)

→ How does this affect customer's evaluation of prices?



Perceived price fairness is an important determinant of customer satisfaction, (re)purchase intention and a firm's long-term profitability.

(Campbell 1999, Homburg, Hoyer, and Koschate 2005, Kahneman, Knetsch & Thaler 1986)

Attitudes influence behavioral intentions.

(Ajzen and Fishbein 1973)

Attitude toward the offer is a global assessment of the attractiveness of an offer at a particular price.

(Monroe 1979)

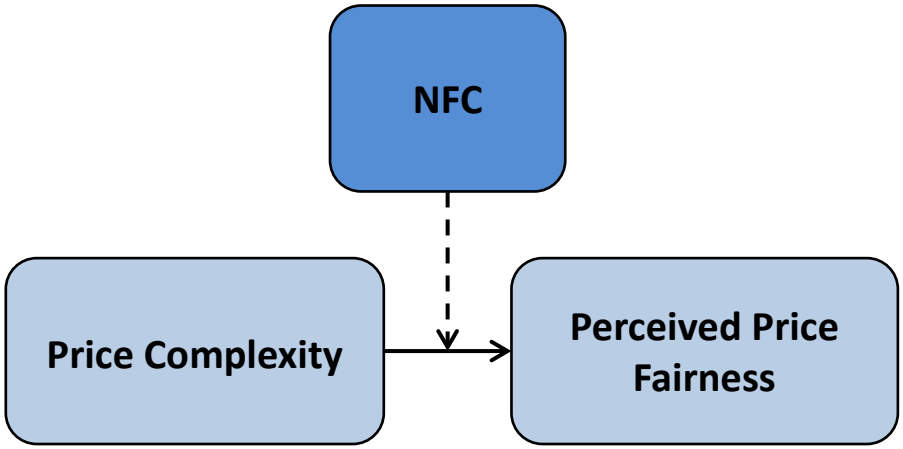
Key Question 2

Are there customer groups who can handle price complexity better than others?

"Costs of thinking" are highly subjective. They should depend on the **extent** to which price complexity is perceived as a burden by customers.

→ How does this affect customer's evaluation of prices?

Need for cognition (NFC) is a personality trait that may affect how customers perceive complexity. This should alter their perceptions of price fairness.



NFC refers to an individual's tendency to engage in and enjoy thinking.

(Cacioppo and Petty 1982)

Individuals high in NFC tend to have positive attitudes toward complexity and tasks that require problem solving; individuals low in NFC lack intrinsic motivation and therefore avoid complexity.

(Haugtvedt, Petty, and Cacioppo 1992; Kim and Kramer 2006)

Study Characteristics (1/2)

Main Study

Data collection:

- Online experiment. An email with an invitation to participate voluntarily along with an embedded link to the study was sent to a graduate student panel.
- Mobile phone tariff was used as stimulus.
- Every participant was provided with a consumption pattern (see slide 10), then randomly allocated to one of the experimental conditions and asked to evaluate the (mobile phone) tariff.
- Three experimental conditions of price complexity: low vs. medium vs. high price complexity. In all conditions, the monthly cost of the offer was 50€ (see slide 10).

→The experimental conditions differed ONLY in complexity:

- low complexity: basic price only (implying an all-inclusive price)
- medium complexity: basic price, four usage-dependent surcharges
- high complexity: basic price, four usage-dependent surcharges, charge for the handset

Sample size:

- 260 students participated in the experiment (42% female, and 49% in the modal age group of 25-29 years)

Study Characteristics (2/2)

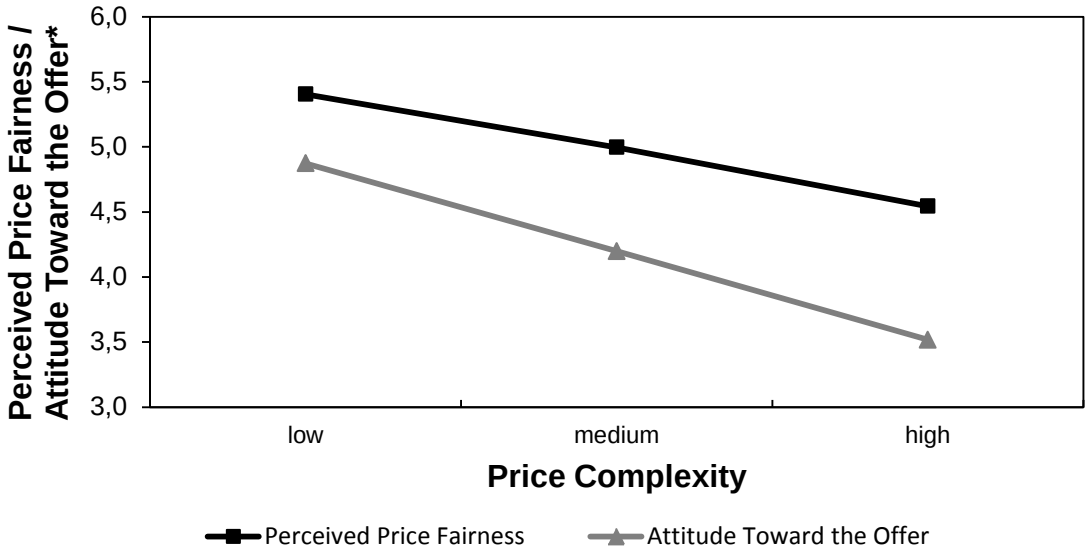
Experimental condition and consumption pattern

	Experimental Price Complexity Conditions		
	low	medium	high
Basic price per month	50.00 €	23.00 €	9.99 €
Provision charge	-	-	No charge: save 24.95 € !
HSDPA usage	inclusive	inclusive	inclusive
WLAN Flatrate	inclusive	inclusive	inclusive
Price per minute for calls			
• Landline numbers	free of charge	0.09 €	0.11 €
• T-Mobile Numbers	free of charge	free of charge	free of charge
• Other network providers' numbers	free of charge	0.09 €	0.19 €
Prices per SMS			
• To T-Mobile numbers	free of charge	free of charge	free of charge
• To other network providers' numbers	free of charge	0.09 €	0.09 €
Prices per MMS			
• To T-Mobile numbers	free of charge	free of charge	free of charge
• To other network providers' numbers	free of charge	0.49 €	0.49 €
Contact duration	24 months	24 months	24 months
T-Mobile G1 Smartphone	inclusive	inclusive	24.24 €

Given consumption pattern	
Calls (per month):	Messages (per month):
• Landline numbers (100 minutes),	• T-Mobile network (100 SMS)
• T-Mobile network numbers (100 minutes), and	• Other numbers (100 SMS), and
• Other numbers (100 min.).	• Zero MMS.

Results (1/2)

What is the effect of complex prices on customers' evaluation of prices?

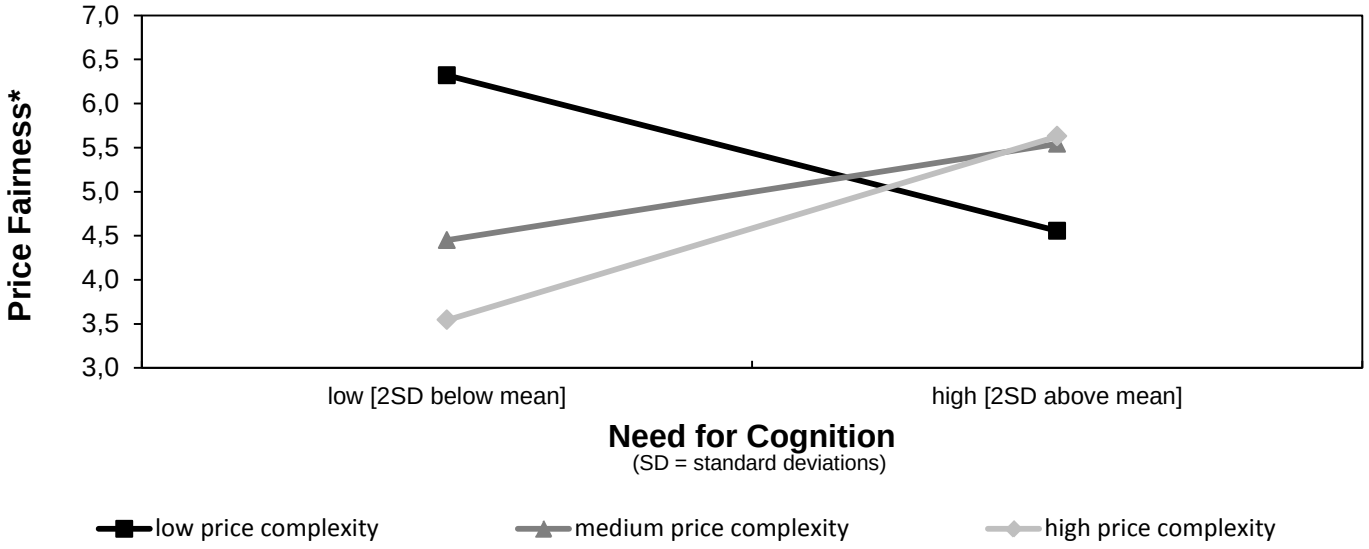


Price complexity shows a significant negative impact on both perceived price fairness and attitude towards the offer.

*) Price Fairness was measured on a 7-point scale with 1 indicating "very unfair" and 7 indicating "very fair". Attitude towards the offer was measured on a 7-point scale with 1 indicating "very unattractive" and 7 indicating "very attractive".

Results (2/2)

Are there customer groups who can handle price complexity better than others?



- **Customers low in NFC:** The higher the complexity, the lower the perceived price fairness.
  → Price complexity has a strong **negative** effect on customers' price fairness perceptions.
- **Customers high in NFC:** The higher the complexity, the higher perceived price fairness.
  → Price complexity has a weak **positive** effect on customers' price fairness perceptions.

*) Price Fairness was measured on a 7-point scale with 1 indicating "very unfair" and 7 indicating "very fair".

Learnings for Managers

Learning 1

Multiple price components render a price to be complex. This complexity is cognitively demanding for customers.

Learning 2

Since customers information processing capacity is limited, this has an impact in customer evaluations of the prices. On average, price complexity has a negative effect on customers' perceptions of price fairness and attitudes towards the service offer.

Learning 3

Customers with a low predisposition to enjoy complex thinking and problem-solving („need for cognition") show strong negative reactions to complex prices due to high "costs of thinking". Customers high in need for cognition show a reversed (however weaker) effect pattern because they tend to enjoy complexity and do not perceive it as a cost.

Learning 4

Splitting up prices in multiple components may have serious drawbacks for major customer segments. Service managers therefore should carefully consider such practices.

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