Effects of Distribution Channel Types and Determinants Influencing the Market Share of National Brands and Private Labels

Chair of Marketing, Univ.-Prof. Dr. Rainer Olbrich
Philipp Brüggemann, Rainer Olbrich, Carsten D. Schultz
FernUniversität in Hagen

Presenter

Philipp Brüggemann
University of Hagen, Germany

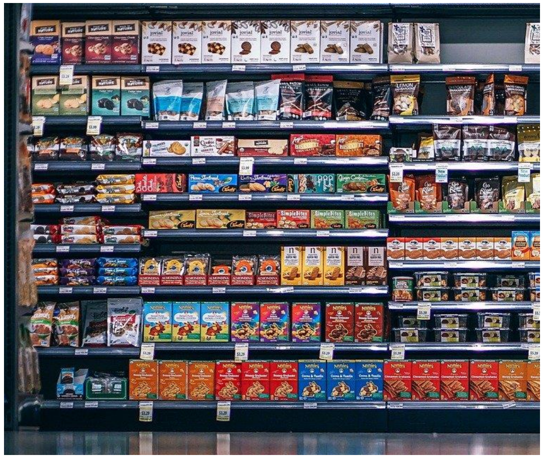
philipp.brueggemann@fernuni-hagen.de
www.fernuni-hagen.de/marketing

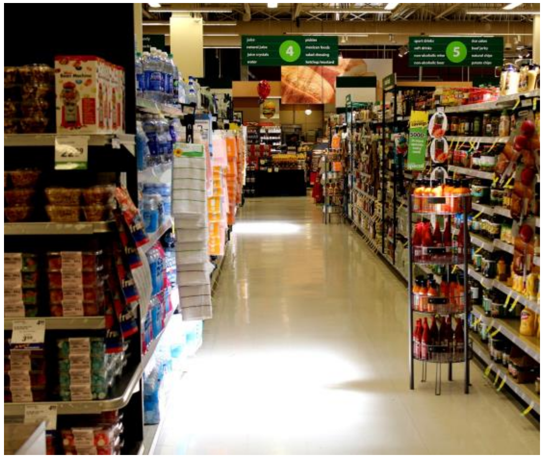
Overview

1. Research Questions
2. Research Model
3. Hypotheses Overview
4. Empirical Analysis
5. Discussion:
   - What's new?
   - What's confirmed?
   - What's most surprising?
   - What limits the results?

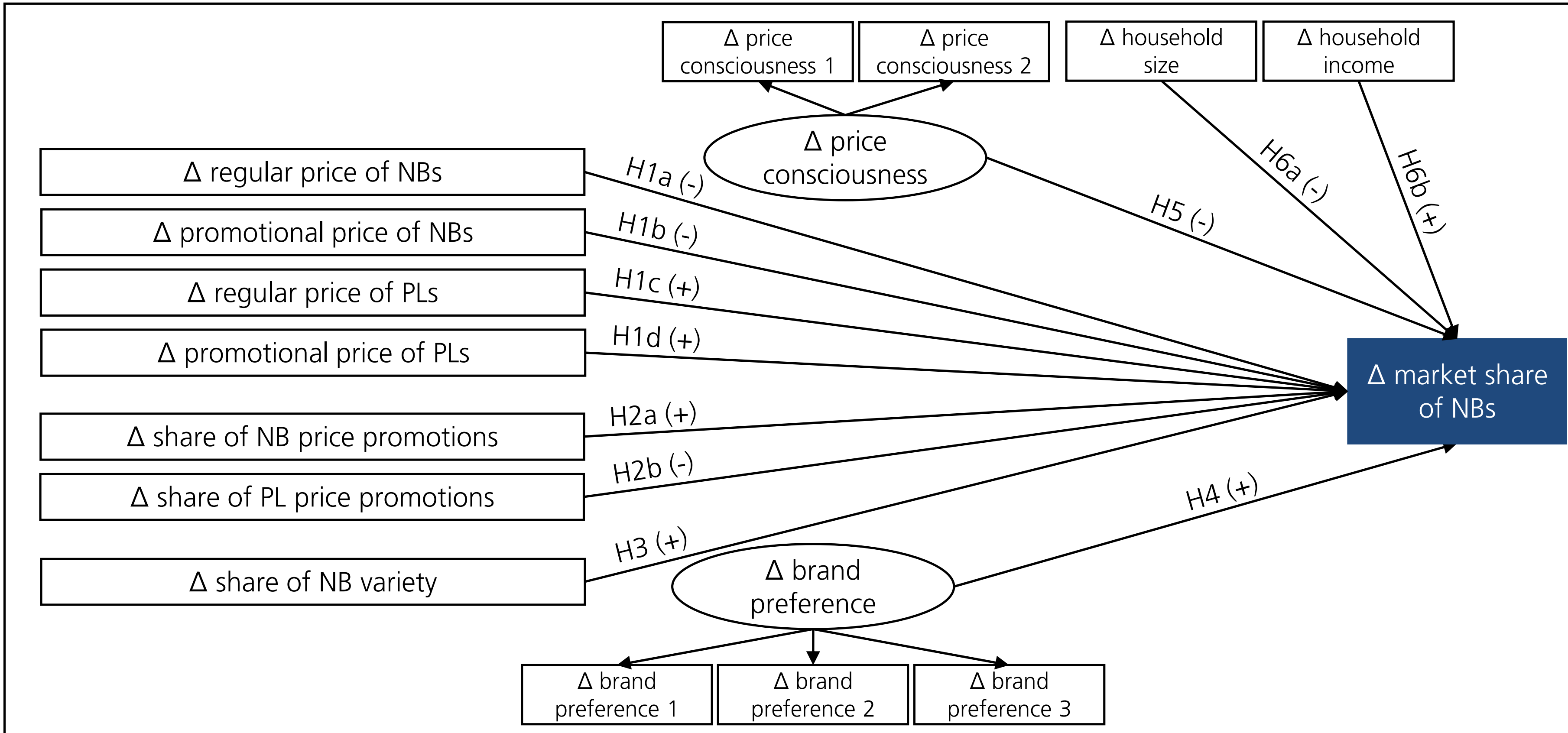
1. Research Questions

- How can purchase of national brands (NBs) be influenced in competition with private labels (PLs)?
- Which determinants affect the purchase of NBs?
- Are there similarities differences between types of distribution channels?





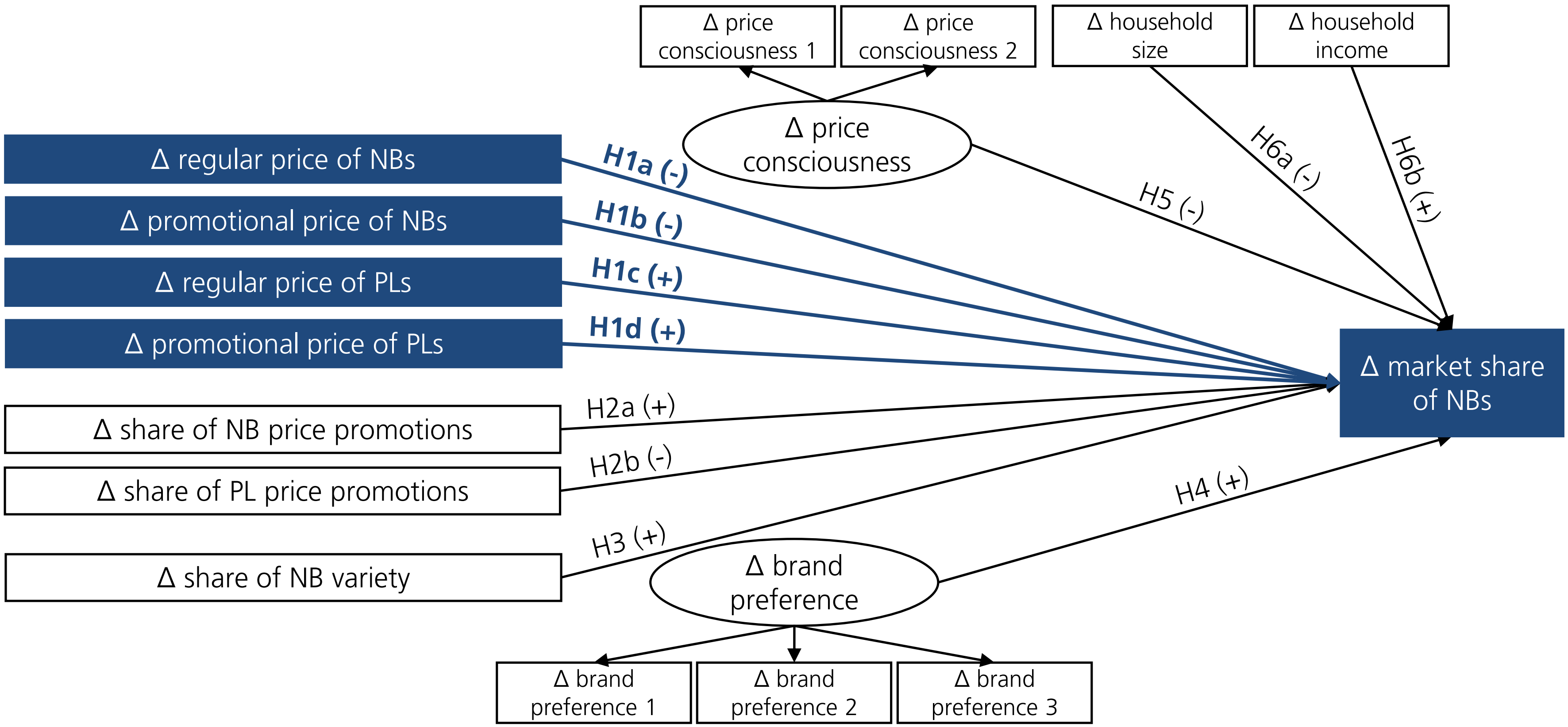
2. Research Model



Multi group analysis:

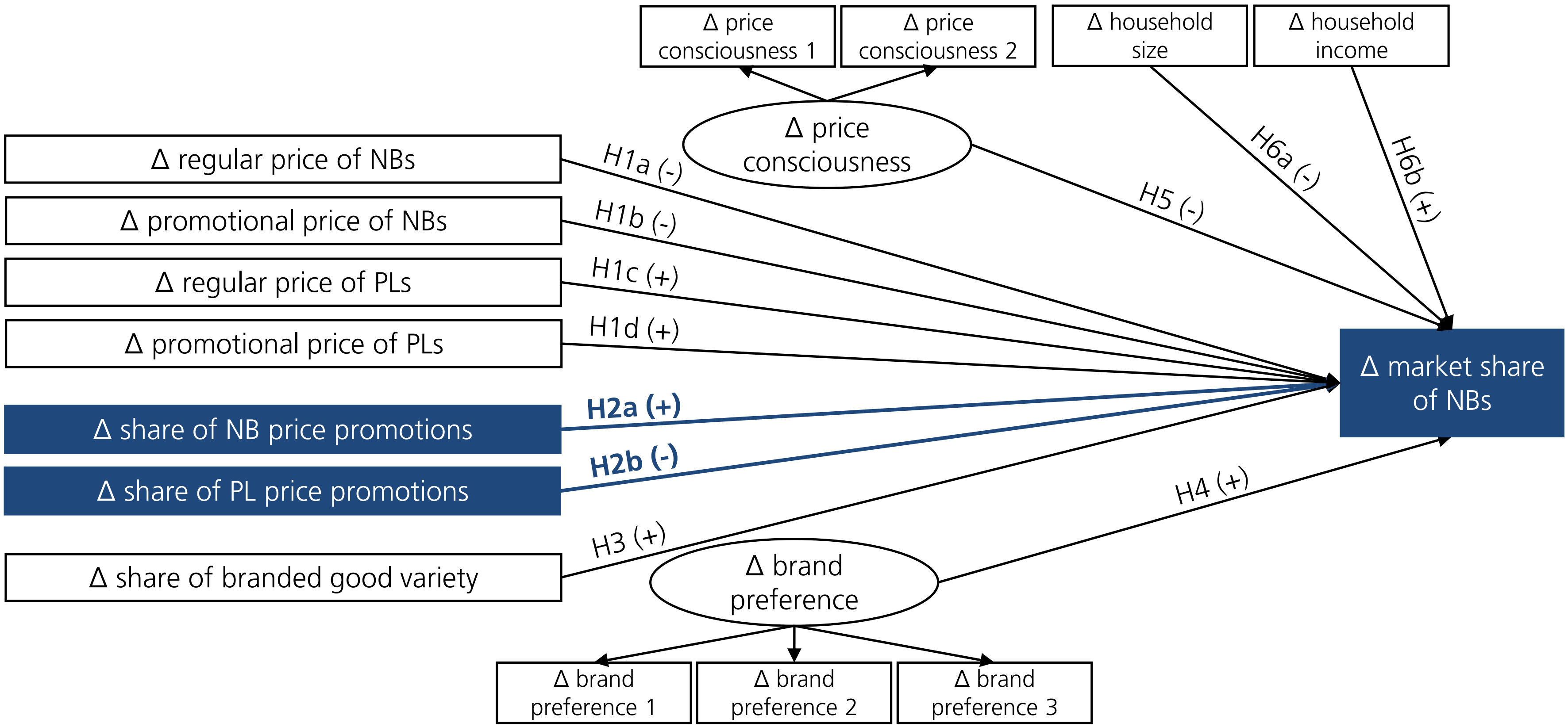
H7: The impact of the determinants of the market share of NBs show significant differences between the types of distribution channels (discounters, supermarkets, hypermarkets).

2. Research Model



Multi group analysis:
H7: The impact of the determinants of the market share of NBs show significant differences between the types of distribution channels (discounters, supermarkets, hypermarkets).

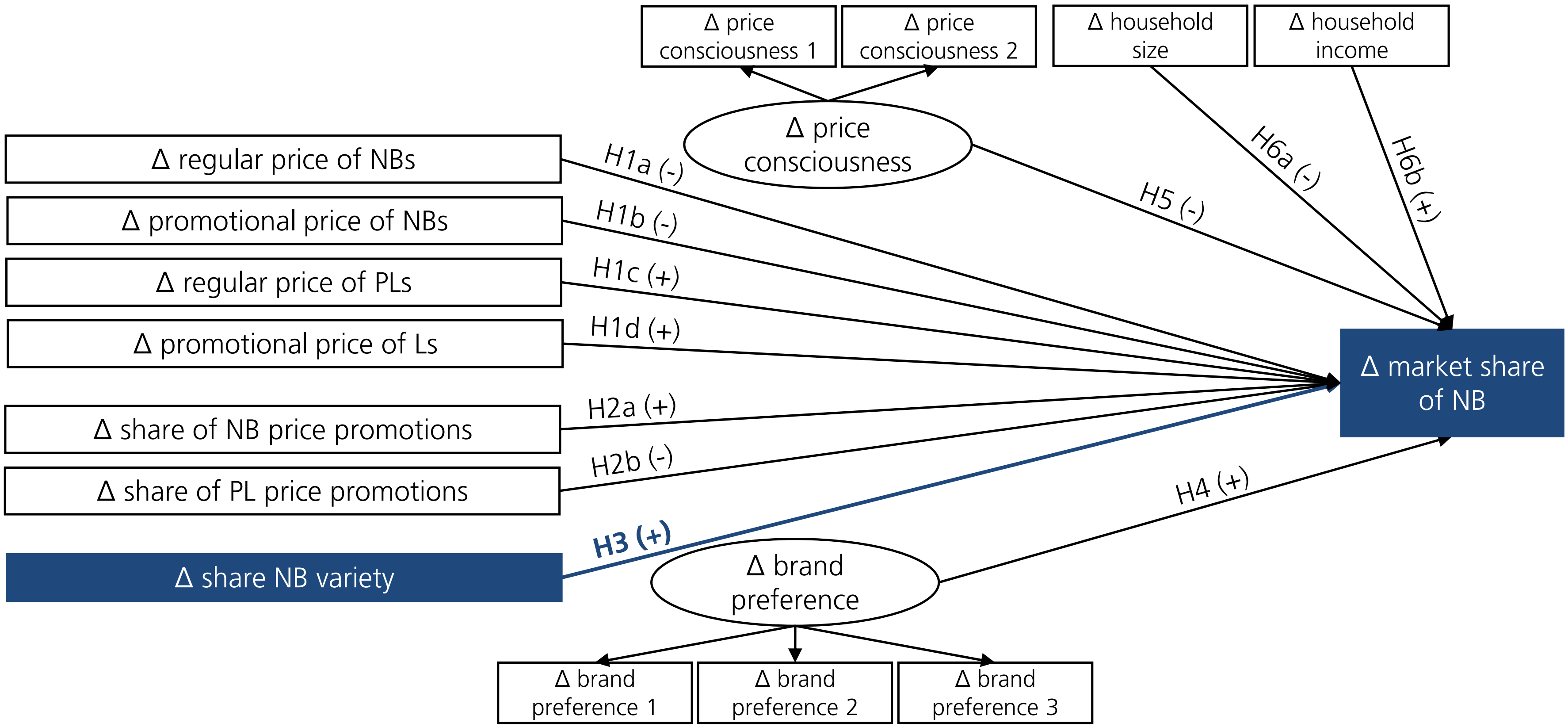
2. Research Model



Multi group analysis:

H7: The impact of the determinants of the market share of NBs show significant differences between the types of distribution channels (discounters, supermarkets, hypermarkets).

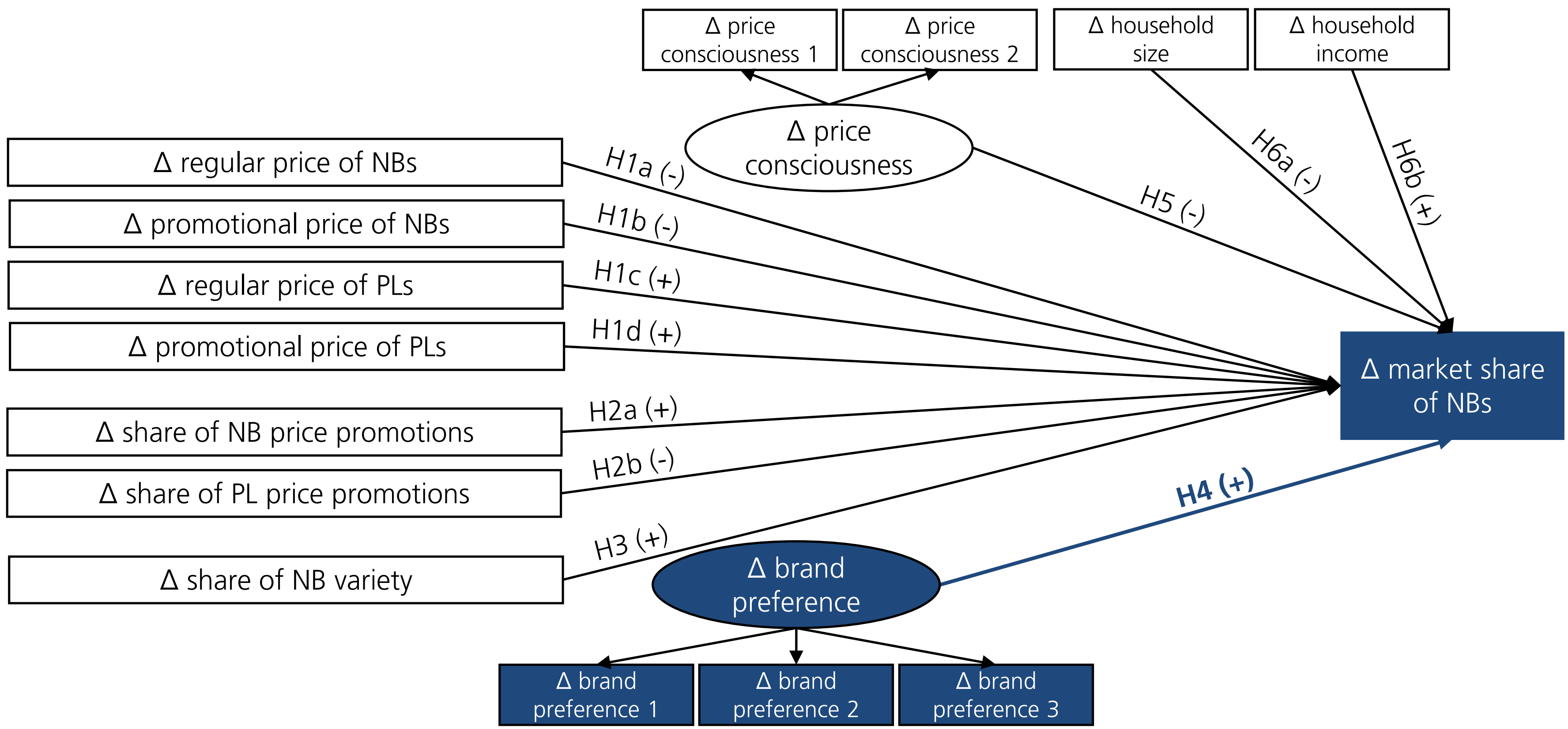
2. Research Model



Multi group analysis:

H7: The impact of the determinants of the market share of NBs show significant differences between the types of distribution channels (discounters, supermarkets, hypermarkets).

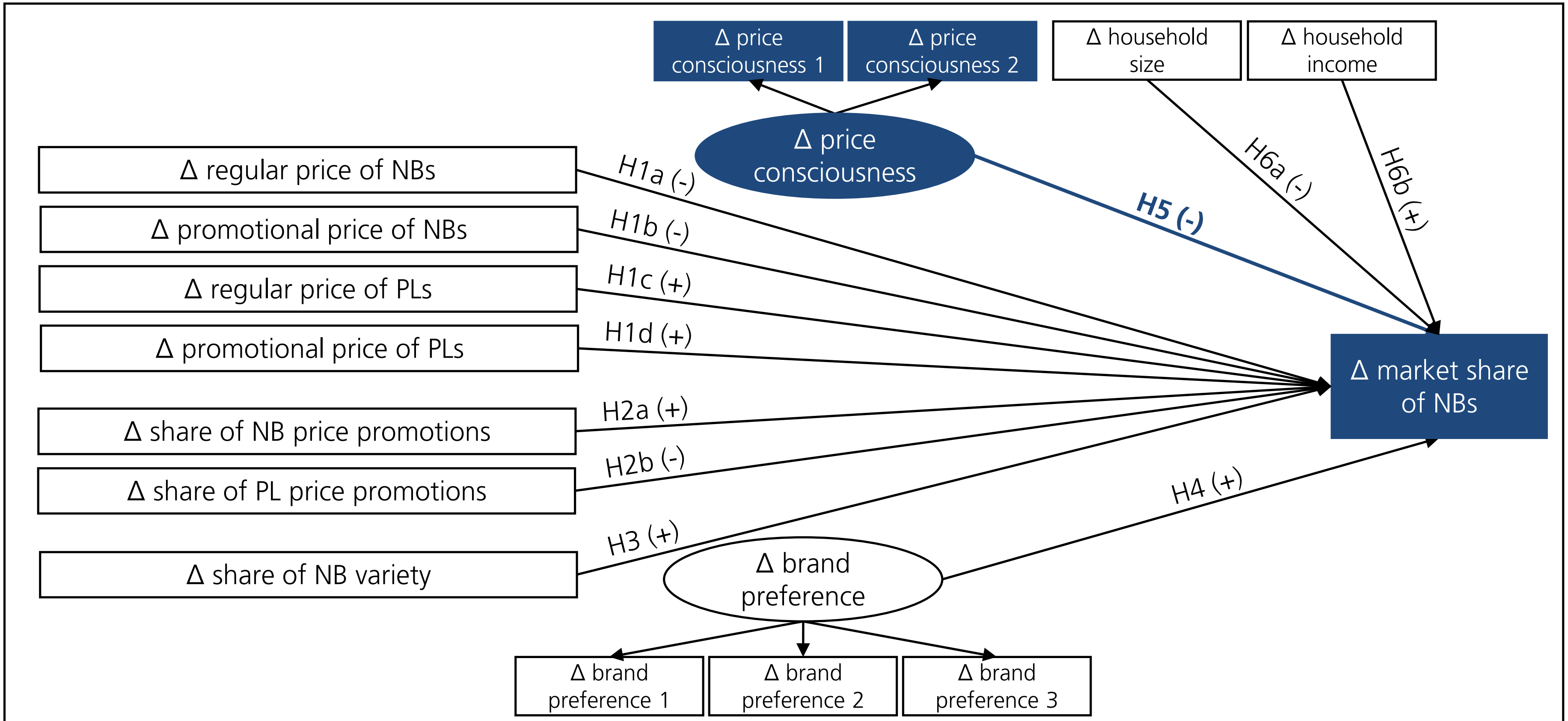
2. Research Model



Multi group analysis:

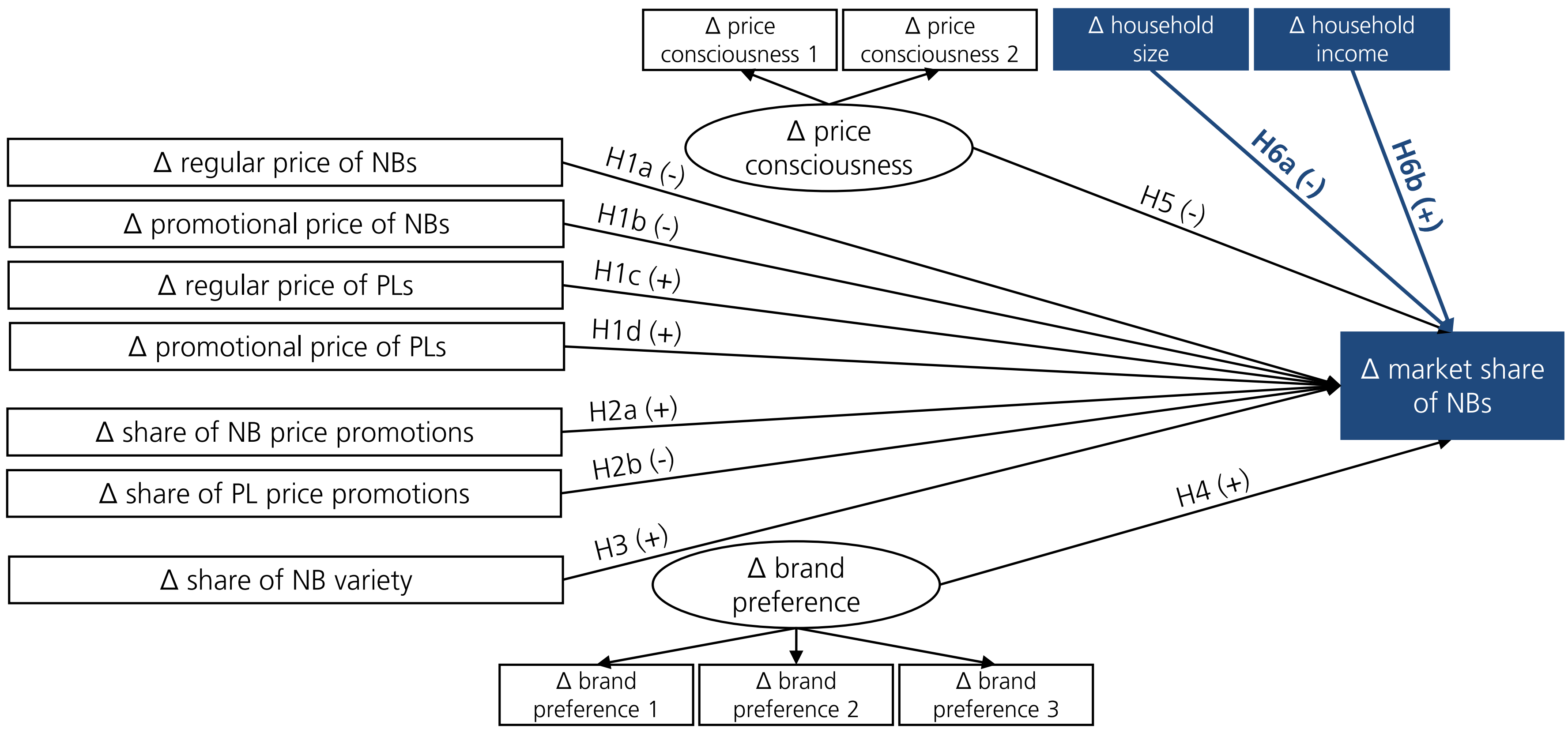
H7: The impact of the determinants of the market share of NBs show significant differences between the types of distribution channels (discounters, supermarkets, hypermarkets).

2. Research Model



Multi group analysis:
H7: The impact of the determinants of the market share of NBs show significant differences between the types of distribution channels (discounters, supermarkets, hypermarkets).

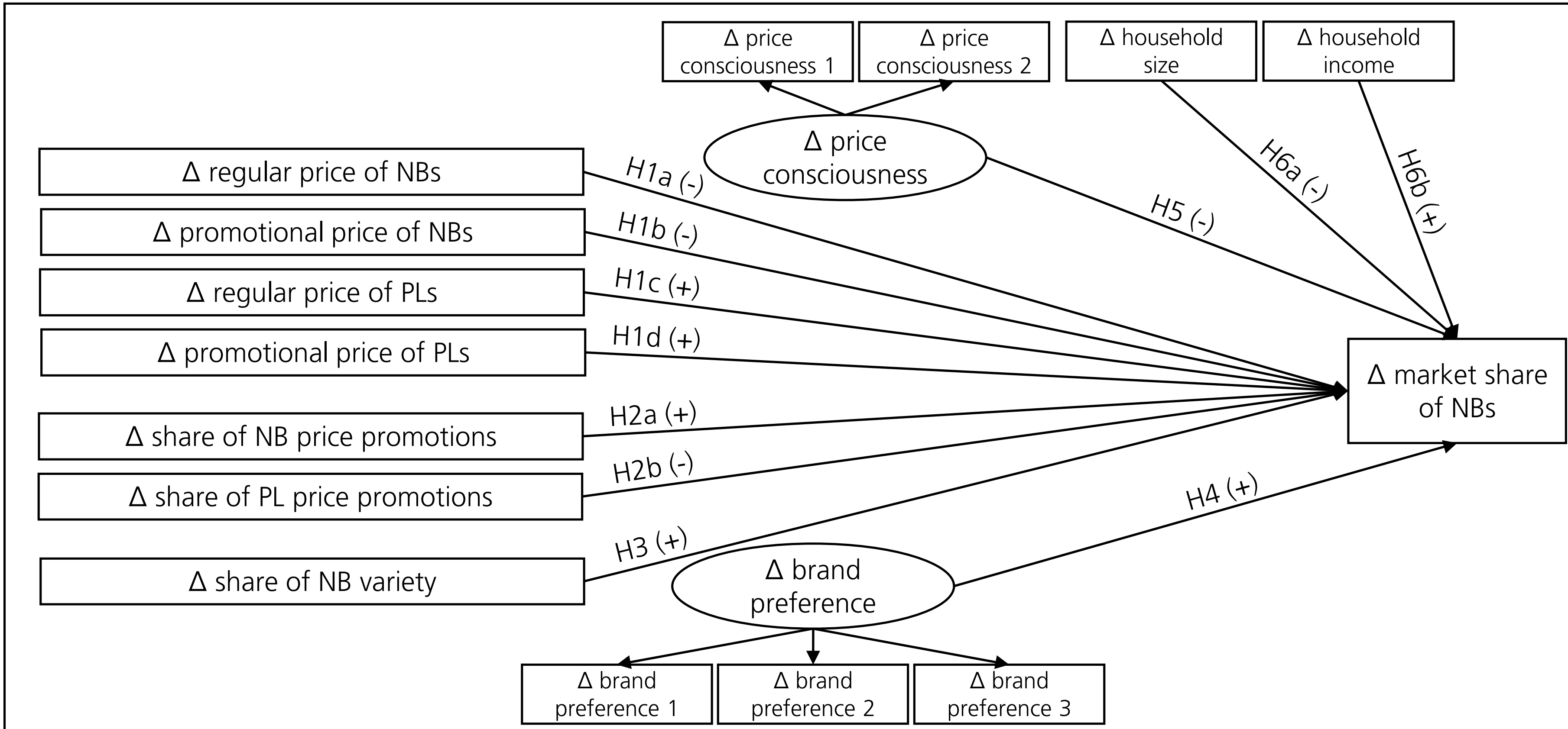
2. Research Model



Multi group analysis:

H7: The impact of the determinants of the market share of NBs show significant differences between the types of distribution channels (discounters, supermarkets, hypermarkets).

2. Research Model



Multi group analysis:

H7: The impact of the determinants of the market share of NBs show significant differences between the types of distribution channels (discounters, supermarkets, hypermarkets).

3. Hypotheses Overview

		independent variable	Literature
1	**H1a**	*Δ regular price of NBs*	Putsis 1997; Cotterill and Putsis 2000; Rubio and Yagüe 2009; Sethuraman and Gielens 2014; Fornari et al. 2016; Olbrich et al. 2017
2	**H1b**	*Δ promotional price of NBs*	
3	**H1c**	*Δ regular price of PLs*	
4	**H1d**	*Δ promotional price of PLs*	
5	**H2a**	*Δ share of NB price promotions*	Blattberg, Briesch and Fox 1995; Nijs et al. 2001; Srinivasan et al. 2004; Sethuraman and Gielens 2014; Olbrich, Jansen and Hundt 2017
6	**H2b**	*Δ share of PL price promotions*	
7	**H3**	*Δ share of NB variety*	Raju, Sethuraman and Dhar 1995; Baker, Baltzer and Mølleri 2006; Olbrich, Grewe and Orenstrat 2009
8	**H4**	*Δ brand preference*	Banks 1950; Padberg, Walker and Kepner 1967; Sriram, Chintagunta and Neelamegham 2006; Rubio and Yagüe 2009; Ebrahim et al. 2016
9	**H5**	*Δ price consciousness*	Sinha and Batra 1999; Jin and Suh 2005; Mostafa and Elseidi 2018
10	**H6a**	*Δ household size*	Richardson et al. 1996; Cotterill and Putsis 2000; Lin and Chan 2003
11	**H6b**	*Δ household income*	
12	**H7**	*differences between the types of distribution channels*	Cataluna et al. 2005, Schäfer 2010

dependent variable: Δ market share of NBs

4. Empirical Analysis – Data Collection

- household panel data from 2006 to 2015
- 7,211,154 sales, 98,326 households (about 30,000 at same time)
- types of distribution channels: discounters, supermarkets (≤ 5,000 m²), hypermarkets (> 5,000 m²)
- product groups: chocolate, coffee, hair shampoo, laundry detergent
- data sample:

household-Id	date	quantity	weight (gram)	revenue (Eurocent)	brand	NB/PL	normal price/ promotional price	brand preference 1	(…)
…									
100001	2006-11-08	2	200	276	*brand 1*	NB	regular price	1	…
100001	2006-11-08	1	100	65	*brand 2*	NB	regular price	1	…
100010	2007-10-30	1	200	99	*brand 3*	PL	regular price	3	…
138661	2008-04-24	2	500	398	*brand 2*	PL	promotional price	4	…
987314	2015-10-28	1	200	129	*brand 1*	PL	regular price	2	…
…									

4. Empirical Analysis – Results

		across channels	multi group analysis		
			discounters	supermarkets (≤ 5,000 m²)	hypermarkets (> 5,000 m²)
1	observations (= weeks * retailers' distribution channels)	8.886	3.364	2.396	3.126
2	R^2	.089	.091	.197	.114
3	*Δ regular price of NBs*	**-.022****	**-.053**[b]**	.001[a,c]	**-.068**[b]**
4	*Δ promotional price of NBs*	**-.091*****	**-.118***[b,c]**	**-.066***[a]**	**-.100***[a]**
5	*Δ regular price of PLs*	**.123*****	**.098**[b,c]**	**.223***[a,c]**	**.156***[a,b]**
6	*Δ promotional price of PLs*	**.082*****	**.087***[b,c]**	**.090***[a]**	**.127***[a]**
7	*Δ share of NB price promotions*	**.126*****	**.170***[b,c]**	**.050*[a,c]**	**.180**[a,b]**
8	*Δ share of PL price promotions*	-.010	-.021	-.004	-.016
9	*Δ share of NB variety*	**.185*****	**.118***[b]**	**.318***[a]**	**.190*****
10	*Δ brand preference*	**.057*****	**.051*[b,c]**	**.102***[a]**	.016[a]
11	*Δ price consciousness*	.023	.009[c]	**.085****	.000[a]
12	*Δ household size*	-.002	-.019	.004	.024
13	*Δ household income*	**.030****	**.061**[b,c]**	.020[a]	-.014[a]

* $p < .050$; ** $p < .010$; *** $p < .001$
a = significant differences to the discounter (significance level: 5 %)
b = significant differences to the supermarket (significance level: 5 %)
c = significant differences to the hypermarket (significance level: 5 %)

4. Empirical Analysis – Hypotheses Review

		independent variable	dependent variable	hypotheses review
1	**H1a**	*Δ regular price of NBs*	*Δ market share of NBs*	*weakly supported for discounters and hypermarkets*
2	**H1b**	*Δ promotional price of NBs*		*supported*
3	**H1c**	*Δ regular price of PLs*		*supported*
4	**H1d**	*Δ promotional price of PLs*		*supported*
5	**H2a**	*Δ share of NB price promotions*		*partly supported for discounters and hyper-markets (weakly supported for supermarkets)*
6	**H2b**	*Δ share of PL price promotions*		*rejected (n.s.)*
7	**H3**	*Δ share of NB variety*		*supported*
8	**H4**	*Δ brand preference*		*partly supported for supermarkets*
9	**H5**	*Δ price consciousness*		*rejected (because of the positive sign)*
10	**H6a**	*Δ household size*		*rejected (n.s.)*
11	**H6b**	*Δ household income*		*partly supported for discounters*
	differences between analysed groups (multi group analysis and Chi²-Test)			
12	**H7**	*differences between the types of distribution channels*		*partly supported for Δ regular price of PLs, Δ share of NB price promotions, Δ share of NB variety, and Δ brand preference*

5. Discussion – What‘s new?

- data over a long time period (10 years)
- intertemporal changes regarding the *determinants* and the *market share of NBs*
- differentiation between
  - *regular and promotional prices of NBs*
  - *regular and promotional prices of PLs*
- *using the changes in share of NB variety (instead of i.e. change in NB variety and change in PL variety)*
- differences and similarities regarding the influence in *types of distribution channels* (discounters, supermarkets, hypermarkets)

5. Discussion – What's confirmed?

- competition between NBs and PLs is (still) intense
- the *prices* and *promotional activities* are partly influencing the market share
- *share of NB variety* influences the market share

5. Discussion – What's most surprising?

(1) *weak and not significant results*

- *changes in regular prices of NBs* and *changes in brand preference* affect the *market share of NBs* only partly and very weak
- *there is no significant influence regarding the change in share of PL price promotions*

	across channels	multi group analysis		
		discounters	supermarkets (≤ 5,000 m²)	hypermarkets (> 5,000 m²)
…	…	…	…	…
Δ regular price of branded goods	**-.022****	**-.053**[b]**	.001[a,c]	**-.068**[b]**
…	…	…	…	…
Δ share of PL price promotions	-.010	-.021	-.004	-.016
…	…	…	…	…
Δ brand preference	**.057*****	**.051*[b,c]**	**.102***[a]**	.016[a]
…	…	…	…	…

* $p < .050$; ** $p < .010$; *** $p < .001$
…

5. Discussion – What's most surprising?

(1) weak and not significant results

explanation: *market share of NBs* is driven by promotional prices of NBs:

- It's **not** the
  - *decrease in regular prices of NBs* or the
  - *decrease in share of PL price promotions*
- that increase the market share of NBs.
- It's the
  - *decrease in promotional prices of NBs* and the
  - *increase in share of NB price promotions.*

5. Discussion – What's most surprising?

(2) positive impact of *change in price consciousness*

explanation: *market share of NBs* is driven by promotional prices of NBs:

- the more *price consciousness* consumers are,
- the more often they may purchase *promotional priced NBs.*
- *And the less they may purchase regular priced NBs.*

→ *shift between regular priced NBs and promotional priced NBs*

→ *no/weak change in market share of NBs (in competition with PLs)*

	across channels	multi group analysis		
		discounters	supermarkets (≤ 5,000 m²)	hypermarkets (> 5,000 m²)
…	…	…	…	…
Δ price consciousness	.023	.009[c]	**.085****	.000[a]
…	…	…	…	…

* p < .050; ** p < .010; *** p < .001
…

5. Discussion – What's most surprising?

- The impact of changes in
  - *regular prices of PLs,*
  - *share of NBs price promotions,*
  - *share of NB variety, and*
  - *brand preference*
- *are* (at least partly) different between the *types of distribution channels.*

	…	multi group analysis		
		discounters	supermarkets (≤ 5,000 m²)	hypermarkets (> 5,000 m²)
…	…	…	…	…
Δ regular price of PLs		**.098**[b.c]**	**.223***[a,c]**	**.156***[a,b]**
Δ share of NB price promotions	…	**.170***[b.c]**	**.050*[a,c]**	**.180**[a,b]**
Δ share of NB variety		**.118***[b]**	**.318***[a]**	**.190*****
Δ brand preference	…	**.051*[b,c]**	**.102***[a]**	.016[a]
…	…	…	…	…

* $p < .050$; ** $p < .010$; *** $p < .001$
a = significant differences to the discounter (significance level: 5 %)
b = significant differences to the supermarket (significance level: 5 %)
c = significant differences to the hypermarket (significance level: 5 %)

5. Discussion – What limits the results?

- prohibition of retail price maintainance
- analysis of four product groups
- not considered:
  - product positioning on the shelf
  - package sizes
  - limited editions

Comments, Proposals or Ideas for Collaboration?

→ Contact Me!

Philipp Brüggemann
University of Hagen
Universitätsstraße 11
58097 Hagen

philipp.brueggemann@fernuni-hagen.de
LinkedIn
www.fernuni-hagen.de/marketing

Photo: Hardy Welsch