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RESEARCH

Bettina Berg

Retail Branding and Store Loyalty

Analysis in the Context of Reciprocity, Store Accessibility, and Retail Formats

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With a foreword by
Prof. Dr. Prof. h.c. Bernhard Swoboda

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Preface

Beside traditionally discussed brand equity models the view of retailers as brands is gaining importance. Retail researchers started to focus on the topic of retail branding in the nineties and it became a top management research priority, as a company's brand is the most intangible asset also for retailers. However, on the one hand, retailers use their brand not only to differentiate themselves from their competitors in consumers' minds but also for brand extensions. On the other hand, customers benefit in considering retail brands due to self-identification and simplification of e.g. store choice. However, consumers perceive the "company-planned" brand position in a specific manner. Thus, detailed knowledge on how to create strong retail brands in relation to a retailer's corporate reputation, on how strong brands drive customer purchase behavior in the light of local competition of single stores, and how format-specific attributes drive retail brand equity across countries is of paramount relevance to retailers which aim to build on strong retail brands. The objective of Bettina Berg's thesis is to gain a deeper knowledge of retail brands as drivers of loyalty in the aforementioned important retail contexts and to give retailers some advice. Addressing these issues the dissertation of Bettina Berg deals with three studies:

- *Reciprocal Effects of the Corporate Reputation and Store Equity of Retailers:* This study examines the reciprocal interdependencies of the locally perceived retail brand in relation to retailers' corporate or chain reputation, considering their mutual influence on customers' loyalty. Based on cross-sectional, two longitudinal surveys as well as an experiment, the findings suggest that retail store equity interacts with corporate reputation and is a more important driver of store loyalty than corporate reputation. Thus, retailers should pay attention to reciprocal effects, especially when deciding on the relative allocation of investments across corporate and store levels.
- *Retail Branding and Local Competition – The Importance of Retail Brand Equity and Store Accessibility for Store Loyalty in Local Competition:* This study examines the retail brand effects on store loyalty in the light of local competition and in conjunction with store's locally perceived store accessibility, which is a highly relevant mantra in retailing. Based on surveys at 30 store locations of a

focal retailer and its strongest local competitor the findings show that store loyalty benefits more from a strong brand than from location, that location can benefit from a strong brand, that a competitor's brand equity has an negative influence on loyalty towards a focal retailer, and that the strength of these effects depends on the local competitive context.

- *International Transfer and Perception of Retail Formats – A Comparison Study in Germany and Romania:* This study examines the perception of retail brands and the drivers of retail brands in the light of different retail formats, considering retailers from developed markets doing business with the same retail formats in emerging countries. Based on consumer surveys in two countries the findings suggest that similar core attributes equally affect format-specific retail brands and store loyalty in both markets. The findings also suggest that retailers transferring their formats from their home to host countries should place particular emphasis on managing the core attributes of a specific format, as these attributes are of paramount importance for establishing retailers as a strong brand.

With her work Dr. Bettina Berg makes a significant contribution to retailing research. She significantly disentangles the interrelation of retailers' corporate reputation and store equities and advances knowledge on retail positioning as strong brands in different local competitive situations as well as formats in different countries. Her work impressed on the one hand with the extent of attention paid to the conceptualization but also with the combination of different types of studies and methodologies. I'm in particular very happy with her work, as Dr. Bettina Berg presents the tenth dissertation at my Chair for Marketing & Retailing at the University of Trier. I thank Bettina Berg for four years of working as research assistant at my chair. I got to know her as honorable and always kind minded person and I wish Dr. Bettina Berg very warmly all the best for her carrier as well as her private life in her future.

Professor Dr. Prof. h.c. Bernhard Swoboda

Trier, March 2013

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The present thesis was developed as research assistant at the Chair for Marketing & Retailing at the University of Trier. After four years of conceptualizations and re-conceptualizations, estimations and re-estimations, writing and rewriting, and asking thousands of people to answer the questionnaires I am proud to succeed in finalizing my dissertation project.

This work would have never been possible without the commitment of my supervisor, colleagues, friends, and family.

First, I have to thank Prof. Dr. Prof. h.c. Bernhard Swoboda, who gave me the opportunity in 2008 to pursue my doctorate. We had a lot of fruitful discussions that led to an improvement of my work. I also acknowledge some interesting events I was able to attend beside my regular work during my assistantship: I had the opportunity to do a two-month research stay in Phoenix (Arizona); I had the chance to attend conferences from the most important marketing associations in Oslo (Norway), Nantes (France), and Saint Petersburg (USA), I tought students at the University of Babeș-Bolyai in Cluj-Napoca (Romania) and at the University of Applied Sciences in Trier, I also attended workshops and doctoral colloquia and learned much from my participation at several practice projects.

Further, I have to thank Prof. Dr. Hanna Schramm-Klein (University of Siegen) for the evaluation of my Ph.D. thesis within a short time frame. I also appreciate that Prof. Dr. Lutz Richter (University of Trier) took over the chairmanship of the oral examination committee.

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our “French Evenings”, “Cake Mondays”, and yearly visit to the Christmas Market always put a smile on my face as does our coffee brakes. Moreover, my thanks also go to Dr. Dan-Cristian Dabija, several students that attended my seminars, and the students for whom I co-supervised their theses; without their help I would have never coped with interviewing thousand of respondents myself.

Third, I would like to thank my friends. I know that they had to enjoy my absence several times as well as to handle diverse appointment cancellations and I appreciate that I can still call them my friends. Nevertheless, thinking about “Oktoberfest-Breakfast” and “Wellness-Weekend”, they managed to take my mind off my doctoral thesis and I am grateful for their persistence.

Special gratitude is dedicated to my partner, Dr. Matthias Weimann. His continuous support and tireless commitment led me to ship around some sharp cliff.

Finally, I emphasize my thanks to my family. Without the education, support and love of my parents and my brother, Margit, Gottfried, and Thomas Berg, this chapter in my life would have been much harder.

Dr. Bettina Berg

Table of Contents

List of Figures

List of Tables

List of Abbreviations

ANOVA .....analysis of variance
Ass.....assortment
AVE.....average variance extracted
B .....unstandardized coefficient
Beta .....standardized coefficient
BIC.....Bayes information criterion
bn.....billion
C .....conceptual
CC.....corporate communication
CEO .....chief executive officer
CFA.....confirmatory factor analysis
CFI .....comparative fit index
CI .....competitive intensity
CO .....customer orientation
Comm .....communication
CR.....composite reliability
.....corporate reputation
CRBE.....competitors' retail brand equity
CSA .....competitors' store accessibility
DIY.....do-it-yourself
df.....degrees of freedom
DM .....Drogeriemarkt
DtC.....distance to competitor
E .....empirical
EFA.....exploratory factor analysis
e.g. .....exempli gratia/for example
et al. .....et alia/and others
esp. .....especially
ExpCC .....expectations in corporate communication

f. .....and the following
F.....F-statistic
FL.....factor loadings (EFA)
FOC .....factory outlet center
GDP .....gross domestic product
GE.....good employer
H .....hypothesis
HDE .....Handelsverband Deutschland
H&M.....Hennes & Mauritz
i.a. .....inter alia/among others
i.e. .....id est/that is
IHK.....Industrie und Handelskammer
Intl. .....international
ItTC .....item-to-total correlation
KMO.....Kaiser-Meyer-Olkin criterion
Loc .....location
m.....million
MANOVA .....multivariate analysis of variance
MG-SEM .....multiple-group structural equation model
MLR .....maximum likelihood estimation with robust standard errors
MV .....mean value
N .....number of sample size
ns .....not significant
p.....significance level
p. .....page
Pri .....price
PSQ .....product and service quality
R^2.....R-square
RBE .....retail brand equity

RFSC .....reliable and financially strong company
RMSEA .....root mean square error of approximation
RSE .....retail store equity
SA .....store accessibility
SAP.....store attribute perceptions
SEM .....structural equation model
SER .....social and environmental responsibility
Serv .....service
SKU .....stock keeping units
SL .....store loyalty
SM .....shopping motives
S-O-R.....stimulus-organism-response
sqm .....square meter
SRMR .....standardized root mean square residual
Std. .....standard deviation
StLay.....store layout
t.....t-value
TLI.....Tucker-Lewis-index
UK.....United Kingdom
USA .....United States of America
U.S. .....United States
vs. .....versus
α.....Cronbach's alpha
ß.....standardized coefficient
χ^2.....chi-square
Δ .....delta
%.....percent
λ .....standardized factor loadings (CFA)
$.....dollar

A. Introduction

1. Relevance and Focus

Retail brands are gaining importance and are relevant for retailers and customers. Retail scientists and practitioners started to focus on the topic of retail branding in the mid-nineties (Ailawadi and Keller 2004, see also the special issue of the Journal of Retailing in 2004), although the branding topic was already relevant for manufacturing firms. It became a top management research priority because a company's brand is the most intangible asset, not only for manufacturing firms, but also for retailers (Keller and Lehmann 2006). Brands are said to help with differentiation and ease the path of communication. However, retailers use their brand not only to differentiate themselves from their competitors in consumers' minds, but also for brand extensions (e.g., Wal-Mart and Carrefour use their retail brands for different retail formats, and other grocery retailers use their retail brand to brand own products i.e. store brands).[1] Regarding customers' benefit in considering retail brands, the advantage for customers relates to identification, prestige, and ease of choice (Hälsig 2008). However, retailers strive to position their retail brand in a specific manner (coder), but consumers also perceive the brand in a specific manner (decoder). Therefore, "the power of a brand lies in the minds of consumers" (Leone et al. 2006), thus the focus of this doctoral thesis is to analyze customers' interpretation and perception of retail brands and the related effects.

Retailers are increasingly listed as strong brands in Interbrand's yearly assessment of the best 100 global brands (see Table A–1), which considers the brand value (derived from financial performance, role of the brand, and brand strength). However, it becomes apparent that there are very few retailers listed that offer products from different manufacturers (e.g., Amazon), whereas the world's biggest grocery retailer, Wal-Mart, is not ranked for example. Most of the retail brands listed offer their own apparel, luxury goods, or fast food. Still, there is a very high backlog demand for managing retailer brands. The undisputed best brands are McDonalds and Nike, who have retained their brand positions

[1] This doctoral dissertation is not focused on retailer's branding at product level (store level).

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over the years. Louis Vuitton, Apple and Amazon worked continuously on their brands over the past decade and achieved quite a good position in 2011 compared to 2001. Newcomers in the list are Zara and H&M, where the latter started with quite a good position in 2008 and succeeded in maintaining it.

Retail Brands	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Online											
Amazon	76	80	74	66	68	65	62	58	43	36	26
Restaurants											
McDonald's	9	8	8	7	8	9	8	8	6	6	6
KFC	51	49	49	54	61	60	60	64	61	60	62
Pizza Hut	47	48	51	55	63	66	74	81	79	83	81
Starbucks	88	93	93	98	99	91	88	85	90	97	96
Burger King	80	90	94	-	-	-	-	-	93	-	-
Apparel											
H&M	-	-	-	-	-	-	-	22	21	21	21
Nike	34	35	33	31	30	31	29	29	26	25	25
Zara	-	-	-	-	77	73	64	62	50	48	44
Adidas	70	68	67	69	71	71	69	70	62	62	60
The Gap	31	36	36	38	40	52	61	77	78	84	84
Levi's	67	73	77	85	96	100	-	-	-	-	-
Puma	-	-	-	-	-	-	-	-	97	-	-
Benetton	100	-	-	-	-	-	-	-	-	-	-
Luxury											
Louis Vuitton	38	41	45	44	18	17	17	16	16	16	18
Gucci	50	52	53	59	49	46	46	45	41	44	39
Hermès	-	-	73	79	82	81	73	76	70	69	66
Cartier	-	-	-	91	89	86	83	79	77	77	70
Tiffany&Co.	73	72	70	75	81	82	79	80	76	76	73
Armani	91	100	-	93	95	97	-	94	89	95	93
Burberry	-	-	-	-	-	98	95	-	98	100	95
Chanel	61	64	61	64	65	61	58	60	59	-	-
Rolex	69	69	68	70	72	72	71	71	68	-	-
Prada	-	86	87	95	93	96	94	91	87	-	-
Polo Ralph Lauren	85	95	95	100	-	-	99	-	99	-	-
Bulgari	-	-	-	-	94	95	-	-	-	-	-
Other											
Apple	49	50	50	43	41	39	33	24	20	17	8
IKEA	46	44	43	40	42	41	38	35	28	28	31
Shell	77	83	83	84	90	89	93	97	92	81	74
BP	74	76	69	72	75	76	84	84	83	-	-
At&t	10	17	-	-	-	-	-	-	-	-	-
Mobil	81	89	91	96	-	-	-	-	-	-	-
Marriott	-	-	-	-	-	-	-	96	-	-	-
Hilton	96	-	-	-	-	-	-	-	-	-	-
SUM	25	24	23	24	24	25	23	24	27	20	20

Table A–1: Top retail brands in the last decade by sector and rank

Source: Interbrand Best Global Brand Reports (2001-2011).

A recent consumer survey reveals the winners and losers in the German retail market (Batten & Company 2012). Over 1,400 respondents rated the brand strength of retailers from different retail sectors. The strongest brand for German customers is Amazon, followed by Aldi, and DM. The German electronic retail brands Media-Markt and Saturn (both owned by Metro Group) lost several ranking positions, as did Schlecker, and Kik. It must be emphasized that the survey took place before Schlecker became insolvent. Thus, it is obvious that customers' positive perception of a retailer's brand is a strong intangible asset for the retailer's success or failure.

A retail brand drives consumer behavior and, in turn, retailers' performance. Consumer research was known to be a topic that was dedicated to manufacturers of consumer goods, but these days consumer behavior has also gained major importance in retailing (Puccinelli et al. 2009). Scholars have started to examine the drivers of consumer behavior, i.e., store patronage, store choice and store loyalty, and revealed that customers' positive retail brand perceptions enhance consumers' behavior towards the retailer (Pan and Zinkhan 2006; Ailawadi and Keller 2004). As already mentioned, a retail brand is a strong intangible asset for retailers. This strength becomes apparent as a retail brand is able to attract consumers (Jinfeng and Zhilong 2009) and to enhance store loyalty, which is viewed as a core predictor of consumer spending (Macintosh and Lockshin 1997). In turn, it should be noted that, with a retail brand's influence on customers' loyalty toward a retailer, a retail brand can enhance retailers' performance (Brown et al. 2006). Thus, this doctoral thesis is not only focused on customers' perceptions of a retail brand, but also on its effects on store loyalty in different contexts.

Retail brands are relevant at different levels. The perception of brands in retailing takes place at different levels (Burt and Davies 2010). Customer perceptions may occur at an organizational or chain level, depending on whether a non-diversified or diversified retailer is evaluated. Furthermore, customers may perceive a brand at a fairly local level, i.e., at the store level (Ou, Abratt, and Dion 2006). This occurs within a competitive marketplace and with frequent customer visits. A third perceptional level of brands in retailing is dedicated to products, i.e. a retailer's store brand (Martenson 2007). This rising complexity of different perceptional levels of a retailer's brand expands when considering

that the focus of consumer perceptions may not be solely directed at the retailer as a brand and the store as a brand, whereas the latter explains that customers perceive retailers' stores also at a very local level with different locations, physical facilities, and competitors (Ou, Abratt, and Dion 2006). There are several forms of consumer perceptions, for example the reputation of a retailer (Walsh, Beatty, and Shiu 2009) must also be taken into consideration. However, there is a need for clear distinctions between different marketing concepts, i.e. between reputation and image (Gotsi and Wilson 2001). Against the background of different perceptional levels of customers, it is of interest to consider whether and how consumer perceptions relating to different levels, i.e. retailer's reputation and the store as a brand, interact with each other and whether they have mutual influence on customers' store loyalty.

Is the retail brand de facto the most important asset in retailing? Despite the undisputed relevance of retail brands to store loyalty and, in turn, to retailers' performance, it is worth considering whether other important success drivers exist in retailing. As consumers can decide when and where (e.g., in store or online) they want to shop, "the only location for retail is where the customers are" (Interbrand 2012, p. 4). Thus, it is not surprising that the old mantra of "location, location, location" is still seen as the key to success in retailing (Grewal, Levy, and Kumar 2009). As location has become relevant, real (bricks and mortar) and virtual (online) location is still of greatest importance for retailers (Interbrand 2012). However, Bell, Ho, and Tang (1998) found at the end of the 1990s that the relevance of location for consumers' store choice is decreasing. Thus, at the moment it is not clear whether customer loyalty depends more on a retailer's brand or its store location. This topic becomes more complex as bricks and mortar retailers have stores in local markets with different local competitive situations. Against this background of retailers operating at different locations and facing different local competitive contexts, it is of interest to establish how strong retail brand and location issues actually drive customers' store loyalty.

Retail branding is relevant to retail formats in an international context. In addition to the aforementioned view of different perceptional levels, the scope can be expanded by including perceptions of retailers' executed format, e.g. discounters, supermarkets, and hypermarkets as traditional retail formats in gro-

cery retailing (Levy and Weitz 2012). In particular, the chosen format or formats also partly transport retailers' intended brand meaning. Nevertheless, a retailer with high quality products would not combine them with discount pricing and less appealing store layouts. The relevance of customers' brand perceptions regarding formats increases as retailers become international. Proceeding from the assumption that retail formats can be viewed in the same way as the retailers' products with which they are doing business in their home countries and abroad, there is much discussion in retailing literature concerning standardization and adaptation of international operations (Swoboda, Zentes, and Elsner 2009). This context specifically gains importance as retailers started doing business in emerging markets after entering developed markets. Against this background of retailers going into foreign markets and of retail formats that also transport retailers' intended brand meaning to customers, it is of interest to establish which role format characteristics play in the formation of retail brands.

Summarizing these issues, retailers are confronted with complex branding tasks that they have to manage: different levels of consumer perception, a possible trade-off between retail brand and store location in local competitive contexts, and perception of retail brands considering retail formats in an international context. In the light of the growing competition in retailing, it becomes incrementally important for retailers to analyze retail brand issues in depth, especially with the focus of consumer perceptions, and thus answer the following key questions:

(1) Do perceptions regarding a retailer's reputation and retail store equities interact with each other in determining store loyalty, and how should retailers manage both levels, e.g. invest in their reputation or in stores as brands?

(2) Against the background of different local competitive contexts, should retailers manage their retail brand or easily accessible stores to attract consumers?

(3) Are specific retail format characteristics actually perceived by consumers in a similar manner in developed as well as in emerging countries, and do they equally influence the respective retail brands within each format in both developed and emerging countries?

These and further questions are of relevance for researchers and especially for managers because, as mentioned before, retail brands are relevant to consumers' loyalty and, in turn, to retailers' performance, however research on retail branding is still sparse. Furthermore, several complex and under-researched topics in conjunction with retail brands raise questions that need to be answered.

2. Research Gaps and Questions

2.1. Overview

The following sections deal with the detection of gaps, looking at literature, theory, and method with respect to research on retail branding and store loyalty. Several research domains relevant to retailing arise especially within the literature gap considering retail branding, store loyalty, reciprocity, location and local competition, and retail formats in an international context. The last section of Chapter 2 deals with the general research questions that describe the motivation for this doctoral thesis and act as a guide for the following studies conducted.

2.2. Literature Gap and Relevant Research Domains

Small amount of research considers retail branding

When reviewing past literature streams that deal with relevant concepts around the topic of associations with a retailer (i.a. image, brand, equity, reputation), it becomes apparent that there is less empirical research on retail branding (i.a. retail/corporate brand, equity, or reputation), but a lot of research on store image (see Table A–2).[1]

Also Grewal and Levy (2007) recently detected a lack of retail branding research. They reviewed articles that were published in the Journal of Retailing between 2002 and 2007 and classified ten topic categories, such as price, brand/product, and service. They found that only seventeen articles focused on the topics that are related to brand/product. This must be considered a small number as this category includes merchandise, assortment, category

[1] This list does not claim to be exhaustive.

management, products, and branding. As the Journal of Retailing is the highest ranked journal in the retailing field, the authors detected a lack of studies related to product and especially to branding.

Study	Type*	Relevant Research Topic(s)
Retail/Store image studies		
Martineau (1958a)	C	Store personality (image)
Martineau (1958b)	C	Corporate image
Arons (1961)	E	Store image, shopping frequency
Fisk (1961)	E	Store image, determinants of store image
Tucker (1961)	E	Corporate Image
Rich and Portis (1964)	E	Store image
Brown and Fisk (1965)	E	Determinants (store image dimensions) of store choice
Kunkel and Berry (1968)	C	Retail (store) image
Berry (1969)	E	Store image
Stephenson (1969)	E	Store image, retail patronage
Jolson and Spath (1973)	E	Factors (store image dimensions) of shopper patronage
Lessig (1973)	E	Store image, store loyalty
Burke and Berry (1974)	E	Store image, store choice
Doyle and Fenwick (1974)	E	Store image
Lindquist (1974)	E	Store image
May (1974)	C	Retail image
Sewell (1974)	C	Store image
Lessig (1975)	C	Store image, store loyalty
Murphy and Coney (1975)	C	Store image, store loyalty
Singson (1975)	E	Store image
Bellenger, Steinberg, and Stanton (1976)	E	Store image
James, Durand, and Dreves (1976)	E	Store image
Marks (1976)	E	(Retail) store image
Stanley and Sewall (1976)	E	Retail image, store patronage
Bearden (1977)	E	Store image, store patronage
Hansen and Deutscher (1977)	E	Retail (store) image
Reich, Ferguson, and Weinberger (1977)	E	(Retail) store image
Schiffman, Dash, and Dillon (1977)	E	Store image, store choice
Wheatley and Chiu (1977)	E	Store image
Hirschman, Greenberg, and Robertson (1978)	E	Retail (store) image
Pessemier (1979)	E	Store image, store patronage
Nevin and Houston (1980)	E	Retail shopping area image
Kasulis and Lusch (1981)	E	(Retail) store image, store patronage
Malhotra (1983)	E	Store image, store choice
Downs and Haynes (1984)	E	Retail image
Jacoby and Mazursky (1984)	E	Retailer image, manufacturers' product brands
Sirgy and Samli (1985)	E	Store image, store loyalty
Mazursky and Jacoby (1986)	E	Store image
Golden, Albaum, and Zimmer (1987)	E	Retail store image
Wu and Petroshius (1987)	E	Store image

(Table to be continued)

Table A–2 (continued)

Hildebrand (1988)	E	Store image, success
Zimmer and Golden (1988)	E	Retail store image
Steenkamp and Wedel (1991)	E	Store image
Gupta and Cooper (1992)	E	Store image, purchase intention
Keaveney and Hunt (1992)	C	Retail store image
Baker, Grewal, and Parasuraman (1994)	E	Store image
Grewal et al. (1998)	E	Store image, purchase intention
Mitchell (2001)	C	Store image
Pan and Zinkhan (2006)	E	i.a. store image, store patronage
Bao, Bao, and Sheng (2011)	E	Store image, private brands (product), purchase intention
Equity in retailing research		
Keller (1993)	C	i.a. brand equity, store image
Yoo, Donthu, and Lee (2000)	E	Brand equity (product), store image
Arnett, Laverie, and Meiers (2003)	E	Retailer equity
Leone et al. (2006)	C	Retailer equity, brand equity, customer equity
Pappu and Quester (2006a)	E	Retailer equity
Pappu and Quester (2006b)	E	Retailer equity, customer satisfaction
Verhoef, Langerak and Donkers (2007)	E	Brand equity, dealer trust
Jinfeng and Zhilong (2009)	E	Store image, retailer equity, retailer loyalty
Retail branding		
Burt and Sparks (2002)	C	Corporate branding
Ailawadi and Keller (2004)	C	Retail branding
Grewal, Levy, and Lehmann (2004)	C	Retail branding, customer loyalty
Da Silva and Alwi (2006)	E	Corporate brand image, loyalty
Keller and Lehmann (2006)	C	Branding (for all organizations)
Ganesan et al. (2009)	C	Retailer brand image
Kwon and Lennon (2009)	E	Offline/online brand image, purchase intention
Reputation in retailing		
Nguyen and Leblanc (2001)	E	Corporate image, corporate reputation, customer retention likelihood
Ou, Abratt, Dion (2006)	E	Retailer reputation, store patronage
Walsh, Beatty, and Shiu (2009)	E	Corporate reputation
Other		
Jones and Reynolds (2006)	E	i.a. retailer interest, re-patronage intention

Notes: * Research types: C = conceptual; E = empirical.

Table A–2: Literature on retailer associations: Image, equity, brand, reputation

Source: Own creation.

Research lacks studies on drivers of store loyalty

Past research has frequently analyzed the drivers of consumers' brand choice and brand loyalty. Peterson and Balasubramanian (2002), respectively, detected under-researched perspectives in retailing. They mention that more research has to be conducted in the research field considering the drivers of consumers' retail choice or store loyalty. Also, Puccinelli et al. (2009) indicated

that store loyalty is an important issue for further research, especially with respect to the cues retailers should emphasize to drive consumers' store loyalty. Thus, there is research needed on the drivers of store loyalty, especially as retail brands are antecedents of store loyalty and against the background of the complex topics in conjunction with retail brands that still raise questions, as already mentioned and identified.

Retail branding and consumer perception levels

As already mentioned, the perception of retailers occurs at different levels (Burt and Davies 2010). Thus, consumers may perceive retailers as a whole organization and at a local level (Ou, Abratt, and Dion 2006). But is there any relationship between corporate and store perceptions, for example? Atkin (1962) already stated that there may be a transfer of perceptions from a store to the retail corporation and back to another store. Also, Stanley and Sewall (1976) noted a possible reciprocal relationship between perceptions of an individual store and a retail corporation. However, a literature review reveals that, although there are some ideas and statements about possible reciprocal relationships in retailing, most studies considered and analyzed rather unidirectional relationships (see Chapter B.2.). Those unidirectional relationships have been analyzed either in a top-down relationship or in bottom-up relationship. For example, Helgesen, Ivar Håvold, and Nesset (2010) found an effect of chain image on store image (top-down effect), and Grewal et al. (1998) found an effect of store brands on store image (bottom-up effect). Still, there is no clear evidence of how different perception levels interact, especially concerning their possible positive influence on consumers' store loyalty. This aspect would be of importance for retail managers who have to allocate their investments efficiently in order to enhance performance.

Retail branding, location, and local competition

Against the background of past literature that describes retail brand as the most intangible asset in retailing (Keller and Lehmann 2006) and emphasizes the importance of location for success (Grewal, Levy, and Kumar 2009), the questions remains as to which of these elements is the most important driver of store loyalty. As already explained above, this topic is specifically relevant as local competitive situations may differ for each retailer store. This means

that a retailer's stores have to face different local competitive situations (number of competitors or distance to next competitor) that in turn influence consumers' local responses to a particular store. In general, research on location started with Reilly (1931) and, therefore, has a longer tradition than research on branding. Location research focuses on topics that deal either with the perspective of retailers or of consumers:

- Studies capturing the companies' view focus, for example, on the choice of an optimal location for a store (Huff 1964; Ghosh and Craig 1983). These studies try to estimate the attractiveness of a catchment area using aggregated data assuming general behavior of consumers living in this area.
- Another stream of research deals with location and accessibility of a store in terms of the distance between a store and the consumer's home or office (Finn and Louviere 1990), the time it takes for customers to reach a store (1982), or adds the perspective of costs for a consumer to reach the store (Bell, Ho, and Tang 1998).
- Further studies that took the consumers' perspective into account deal specifically with subjective consumer evaluations of a store's location in terms of perceived accessibility (Gautschi 1981; Severin, Louviere, and Finn 2001) to explain store choice or store patronage.

In summary, location research aims to measure retail potential, to search for the optimum location for retailers, and to explain customers' store choice (see Brown (1993) and Craig, Gosh, and McLafferty (1984) for overviews). Although scholars have often studied location issues in the past, they have rarely focused on the relative importance of retail brands and store locations for store loyalty, for example, in different competitive situations. Additionally, Grewal, Levy, and Kumar (2009) recently called for more research on location issues.

Another related research stream that is relevant to retailers operating at a local level is dedicated to local competition. Hartman and Spiro (2005), for example, conceptualized store equity as the store perceptions of one retailer in relation to the store perceptions of competing retailers. Nevertheless, perceptions of competitors were incorporated in one measure with perceptions of a focal retailer rather than examining two different variables. However, using consumer evaluations of a focal retailer and of its strongest competitor separately would allow for additional conclusions, e.g. on how the strong brand equity and store

accessibility of both the focal retailer and its competitors determine store loyalty intentions toward the focal retailer. Beside this perceptional view of local competition, there are studies that consider objective local competitive characteristics in their research, e.g. to explain customers' cherry-picking behavior (Talukdar, Gauri, and Grewal 2010) or as moderating effect between satisfaction, convenience, and repurchase intentions (Seiders et al. 2005). However, studies on the effects of objective local competition (i.e., the number of competing stores in the trading area and the distance from the focal retailer to the next competitor) on possible relationships between brand, location, and loyalty are scarce. It would be of interest, especially for retailers that have to manage their local stores successfully, to establish how retail brands and store accessibility of both a particular retailer and its local competitors influence customers' store loyalty to a particular retailer, and how objective local competitive situations influence these relationships is of more crucial interest.

Retail branding and retail formats in an international context

As already mentioned, retailers started to leave their home and saturated markets to do business first in developed and then in emerging markets (Dawson 2001; Goldman 2001; Goldman, Ramaswami, and Krider 2002). The probability of retailers' success was said to be given if they used retail formats abroad that they had already used in their home markets (Gielens and Dekimpe 2001). Additionally, retailers often adapt their offers to local markets within a format (Goldman 2001). Thus, retailers adopt marketing instruments within the boundaries of core attributes that are characteristic of the format that is preferred for expansion. As retail marketing instruments are also used to create a brand in consumers' minds, it is interesting to establish whether the core attributes that determine retail brands within a format in developed countries are perceived identically to the core attributes abroad. Table A–3 gives a brief overview of the different research streams that deal with retail formats, especially retail formats and consumer behavior, the development of retail formats, new retailers in a market and the upcoming reaction, inter- and intra-format competitions, the success of retail formats, and other format-related topics. There has been a lot of research on consumers' format choice, and especially on intra- and inter-format competition. The majority of studies that deal with the entry of a new format or retailer abroad focus on

the reactions of other retailers in that market or on whether consumers' behavior changes. Studies that deal with the perceptions of formats abroad and the effect of those format-specific core attributes on retail brand within a format are scarce. Only Merrilees, McKenzie, and Miller (2007) examined whether the brand formation process applies in both Canada and Estonia, focusing on price, store organization, and personal service as brand drivers and concentrating on only one type of store format, i.e. low-price stores. They found that the personal service provided by the retailer was the most important attribute influencing the brand in both countries, however price was only significant for brand formation in Canada and store organization was only a significant driver for brand formation in Estonia. The findings are surprising, as price is seen as a core attribute for low-price stores. However, further comparative research is needed, especially with respect to a broader range of attributes involved and different retail formats.

Study	Type*	Relevant Research Topic
Retail format(s) and consumer behavior		
Rousey and Morganosky (1996)	E	Consumers' format choice including department stores, specialty stores, mass merchandisers, discount stores, mail order catalogues, off-price stores, manufacturers' outlets, warehouse clubs, used stores, and television home shopping channels
McGoldrick and Andre (1997)	E	Determinants of store loyalty for a superstore
Solgaard and Hansen (2003)	E	Consumers' format choice including discounters, hypermarkets, supermarkets
Bhatnagar and Ratchford (2004)	E	Consumers' format choice including supermarkets, convenience stores, and food warehouses
Carpenter and Moore (2006)	E	Consumers' format choice including specialty grocers, traditional supermarkets, supercenters, warehouse clubs, internet grocers
Van Waterschoot et al. (2008)	E	Consumers' format choice
Fowler and Bridges (2010)	E	Determinants of consumers' format choice including specialty stores, department stores, discounters, online, thrift, and pop-up stores
Zielke (2010)	E	Determinants of consumers' format patronage including discounters, supermarkets, weekly market and organic food stores
Development of retail format(s)		
Worthington (1988)	C	Development of convenience stores
Hogarth-Scott and Rice (1994)	C	Development of discounters and influence on other formats
Fernie (1996)	C	Development of factory outlet centers (FOC)
Castrillo, Forn, and Mira (1997)	C	Development of hypermarkets
Fernie and Fernie (1997)	C	Development of FOC

(Table to be continued)

Table A–3 (continued)

Goldman, Ramaswami, and Krider (2002)	E	Development of retail formats including supermarket chains, small chains, independent supermarkets, food sections of major department stores, convenience store chains, drugstore chains and warehouse clubs (modern formats) and wet markets, Chinese grocery stores, bakeries, fruit shops, and teashops (traditional formats)
New retail formats/retailers and the reactions		
Kaas (1994)	C	Discounters and the influence on other formats
Burt and Sparks (1995)	C	Entry of the limited line discount store in Britain
Arnold and Fernie (2000)	C	Prospects for Wal-Mart in UK
Brennan and Lundsten (2000)	E	Entry of discounters in town and the change in shopping behavior
Seiders, Simonides, and Tigert (2000)	E	Entry of Supercenters (esp. Wal-Mart and Meijer)
Fernie and Arnold (2002)	C	Entry of Wal-Mart and Wal-Mart's opportunities in France
Gielens et al. (2008)	E	Entry of Wal-Mart and its influence on retailers
Ailawadi et al. (2010)	E	Entry of Wal-Mart and its influence on retailers
Inter- and intra-format competition		
Gonzáles-Benito (2001)	E	Inter-format competition including hypermarkets, supermarkets, discounters
Hansen (2003)	E	Inter-format competition including specialty food stores and supermarkets
Colla (2004)	C	Inter-format competition and format development including hypermarkets, superstores, supermarkets, discounters
González-Benito, Muñoz-Gallego, and Kopalle (2005)	E	Inter- and Intra format competition including hypermarkets, supermarkets, discounters
Zhu, Singh, and Manuszak (2009)	E	Intra-format competition of discounters
Cleeren et al. (2010)	E	Inter- and intra format competition among supermarkets and discounters
Success of retail formats		
Dupuis and Prime (1996)	C	Success factors of hypermarkets in the USA and Taiwan
Goldman (2000)	C	Success of supermarkets in Shanghai
Gielens and Dekimpe (2001)	E	How to succeed abroad (which format to use)?
Goldman (2001)	E	Format transfer
Colla (2003)	C	How do discounters succeed?
Deleersnyder et al. (2007)	E	How do discounters succeed?
Other retail format-related topics		
Messinger and Narasimhan (1997)	E	Grocery retail formats and one-stop shopping
Verhetsel (2005)	E	Product categories and store formats including supermarkets and hypermarkets
Gauri, Trivedi, and Grewal (2008)	E	Retailers' format choice including limited assortment stores, supermarkets, supercenters
Hansen and Singh (2009)	E	Product categories and store formats including high-end grocery store, traditional supermarket, and large everyday low pricing (EDLP) formats

Notes: * Research types: C = conceptual; E = empirical.

Table A–3 Retail format-related research streams

Source: Own creation.

Bringing together the literature on retail branding in conjunction with reciprocity, store accessibility and format perceptions abroad, five major research gaps are identified and briefly summarized in the following:

- There is a lack of research on retail branding (Grewal and Levy 2007) and on the drivers of store loyalty (Peterson and Balasubramanian 2002; Puccinelli et al. 2009).
- There is a lack of bidirectional studies, especially considering the relationship between different perception levels of consumers.
- Research lacks recent location studies (Grewal, Levy, and Kumar 2009).
- Studies on the effects of objective local competition on possible relationships between brand, location, and loyalty are scarce.
- There are few studies that deal with the perceptions of formats abroad and the effect of format-specific core attributes on retail brand within a format.

2.3. Theoretical Gap

With respect to theory, there appears to be little schema theoretical and associative network theory in conjunction with store loyalty and retail branding.

As already mentioned, *store loyalty* is a very relevant topic in retailing, especially as it is a proxy for retailers' performance. However, researchers not only detected that more retailing research is generally needed on store loyalty (see section above). Brown and Dant (2009) categorized the theories and content areas from articles published in the Journal of Retailing between 2004 and 2009 and examined the frequency of theories used for different content areas. They found that store loyalty has been explained mostly by general marketing theories (37.1%), followed by microeconomic theory, social exchange theory, satisfaction theory, and other psychological theories for individuals (all 11.4%) (e.g., attitude, emotion, perceived risk, learning, or memory theory). Accordingly, Puccinelli et al. (2009) recently stated that there is need for further research in retailing, considering theories in conjunction with mechanisms that took place in consumers' memories and store loyalty.

Considering the content area of *brand/product*, the authors found that it has been frequently explained using other psychological theories for individuals (31.9%), followed by microeconomic theory (19.1%), marketing theory (17%), and consumer choice theory (14.9%) (Brown and Dant 2009). Overall, Brown

and Dant detected that a total of 377 theoretical incidents arose within the 173 articles reviewed, meaning that 2.18 theories were used per article. Nevertheless, the authors clearly stated that the theoretical category of other psychological theories for individuals comprises 69 theories that have been used for the conceptual framework or hypothesis development or have been mentioned only. However, only nine out of the 50 studies that used other psychological theories for individuals dealt with branding or image, whereas only two studies used memory or schema theoretical theories (Pan and Zinkhan 2006; Ailawadi and Keller 2004), four only mentioned them (Barone, Norman, and Miyazaki 2007; Brady et al. 2005; Lei, de Ruyter, and Wetzels 2008; Puccinelli et al. 2009), and three did not apply any memory or equivalent theory (Kumar and Shah 2004; Jones and Reynolds 2006; Yim, Chan, and Hung 2007).

Summing up, using memory theory or related theories also seems to be a fruitful approach for studying retail branding in addition to store loyalty. Thus, this doctoral thesis aims to contribute to theory in applying schema theoretical reasoning and associative network theory to the mechanisms that arise in consumers' minds in conjunction with retail brands and store loyalty.

2.4. Methodological Gap

Retail brand research lacks an approach to methodology. A review of articles that were published in the Journal of Retailing between 2002 and 2007 (Brown and Dant 2008) reveals a gap concerning the research design or data base used. Although consumer survey data are one of the most popular approaches to methodology used in retailing (see Brown and Dant 2008, p. 4), brand and product-specific research articles frequently used student survey or secondary data (see Table A–4). Thus, research on brands and products using consumer data is relatively scarce.

Retail brand research lacks the use of inferential tools. A second and more crucial gap occurs concerning the use of inferential tools or methods used for branding research. The articles examined in the Journal of Retailing between 2002 and 2007 on brand and product frequently used analysis of variance (ANOVA) and multivariate analysis of variance (MANOVA), followed by the category 'other techniques' (comprising 20 techniques) and analytical model-

ing (see Table A–5). However, retail brand research lacks the causal approaches of regression analysis and structural equation modeling (SEM).

Approach to Methodology	Substantive Content Area										Total Methodological Incidents
	CB	P	L	S	I	B/P	O	PM	CH	OTH	
Student Survey	48.5	37.7	6.1	26.7	24.1	42.1	0.0	31.6	0.0	3.7	85
Consumer Survey	25.0	15.	45.5	43.3	20.7	15.8	10.5	10.5	20.0	14.8	73
Secondary Data	8.8	22.6	21.2	3.3	20.7	26.3	21.1	47.4	6.7	11.1	54
Laboratory	11.8	15.1	6.1	13.3	27.6	10.5	0.0	0.0	6.7	7.4	35
Industry Survey	0.0	0.0	6.1	3.3	0.0	0.0	63.2	0.0	46.7	3.7	23
Qualitative	1.5	0.0	3.0	3.3	3.4	5.3	5.3	0.0	0.0	37.0	16
Modeling	0.0	3.8	3.0	0.0	0.0	0.0	0.0	0.0	20.0	7.4	8
Other	4.4	5.7	9.1	6.7	3.4	0.0	0.0	10.5	0.0	14.8	18
Total	68	53	33	30	29	19	19	19	15	27	312

Notes: CB = Consumer Behavior, P = Price, L = Loyalty, S = Services, I = Internet, B/P = Brand/Product, O = Organization, PM = Promotion, CH = Channels, OTH = Other.

Table A–4: Retail content area by methodological approach adopted in Journal of Retailing studies 2002-2007

Source: Brown and Dant (2008, p. 4).

Inferential Tools Used	Substantive Content Area										Total Methodological Incidents
	CB	P	L	S	I	B/P	O	PM	CH	OTH	
Regression	32.4	35.8	27.3	26.7	17.2	10.5	42.1	42.1	20.0	7.04	86
ANOVA/MANOVA	33.8	32.1	3.0	16.7	10.3	36.8	10.5	26.3	6.7	11.1	67
SEM	13.2	7.5	24.2	30.0	20.7	5.3	21.1	5.3	40.0	0.0	48
Analyt. Modeling	1.5	5.7	18.2	3.3	3.4	15.8	0.0	10.5	20.0	14.8	24
Qualitative	8.8	0.0	9.1	0.0	3.4	5.3	5.3	0.0	0.0	44.4	24
Other Techniques	10.3	18.9	18.2	23.3	44.8	26.3	21.1	15.8	13.3	22.2	63
Total	68	53	33	30	29	19	19	19	15	27	312

Notes: Analyt. = Analytical, CB = Consumer Behavior, P = Price, L = Loyalty, S = Services, I = Internet, B/P = Brand/Product, O = Organization, PM = Promotion, CH = Channels, OTH = Other.

Table A–5: Retail content area by inferential tools used in Journal of Retailing studies 2002-2007

Source: Brown and Dant (2008, p. 5).

In summary, breaking up these patterns of research may further existing knowledge, broaden our view of retailing phenomena, and raise new problems to analyze (Brown and Dant 2008). Thus, this doctoral thesis aims to contribute to methods due to the methodological gaps detected in reviewing consumer survey data and analyzing them with several causal approaches of structural equation modeling.

2.5. General Research Objectives

Having highlighted the relevance of retail brands and store loyalty for retailers that have to cope with various complex topics regarding the managing of their retail brand, introduced the respective research gaps, and briefly looked at the related research domains which remain unanswered in the context of retail branding, three general objectives of the present thesis emerge.

The general research objectives of this thesis aim to gain a deeper knowledge of retail brands as drivers of loyalty in several complex retail contexts that emerge, to give retailers some advice, and to equip them with tools to better understand and effectively manage their brands in the respective situations. Thus, the three general research objectives encompass the investigation of how retailers should decide on their investments in building the chain's reputation or store's equity, of how retailers should allocate their investments in expensive, but easily accessible store locations or in building the retail brand considering different local competitive situations, and of how retailers should shape and manage their retail brand within a specific format when going international. All these topics deal with the evaluations of consumer perceptions that finally result in the development of consumers' store loyalty.

To illuminate these complex issues, three studies have been designed to answer three general research objectives:

- The first objective is to explore the role of the locally perceived retail brand in relation to retailers' corporate or chain reputation, considering their mutual influence on customers' loyalty.
- The second objective is to explore the retail brand effects in the light of local competition and in conjunction with stores' locally perceived accessibility, which is a highly relevant mantra in retailing.
- The third objective is to explore the perception and drivers of retail brands in the light of different retail formats, considering retailers from developed markets doing business with the same retail formats in emerging countries.

These three general research objectives are considered and evaluated in Chapter E on the basis of three studies. Therefore, each general research objective is examined separately in depth in one study by answering concrete research questions. In the following, a short overview of the motivation, re-

search questions, conceptual framework, empirical analysis, and contribution is provided for each study.

3. Structure of and Contributions by the Studies

3.1. Reciprocal Effects in Retailing

As mentioned, the general objective of Study 1 is to explore the relationship between different consumer perception levels, i.e. to explore the relation of the locally perceived retail brand in relation to retailers' corporate or chain reputation, considering their mutual influence on customers' loyalty. In detail, Study 1 analyzes the relationship between retail store equity, which is dedicated to consumers' local perception of the brand, and corporate reputation, which is dedicated to consumers' chain or corporate perception. Additionally, Study 1 examines the effect of both perception levels on consumers' store loyalty. Furthermore, the study examines whether retail store equity or corporate reputation offer a greater contribution to store loyalty. From a theoretical perspective, the study refers to schema theoretical reasoning and the associative network theory to explain bidirectional relationships of specific store and corporate knowledge that is stored in consumers' memories. The theories also offer an explanation for the strength of specific information in consumers' minds in conjunction with retrieval of information. From a managerial perspective, this research enhances our understanding of the role of consumers' local and corporate brand perceptions in store loyalty, which in turn is a strong driver of retail performance. Thus, retail managers may gain insights for use in the allocation of investments.

The motivation for this specific view is threefold. First, branding has become more complex in retailing against the background of different perception levels (Burt and Davies 2010). Second, retailers knew hitherto that top-down and bottom-up effects emerge in retailing, e.g. between store image and store brands, or between store image and mall image. It is still not known, however, whether reciprocal effects actually exist, although there were early ideas of a possible effect from the store to the chain and vice versa (Stanley and Sewall 1976). Third, the question of how strongly different perception levels determine store

loyalty is still unclear. The latter issue is particularly relevant for retailers to efficiently manage brand perceptions in order to enhance performance.

In detail, the following research questions are examined:

- Is there actually a reciprocal relationship between corporate reputation and retail store equity?
- Does corporate reputation or retail store equity have a stronger effect on store loyalty?

The conceptual framework of Study 1 is twofold. First, the study examines the key underlying mechanism of reciprocal connections in consumers' minds. The mechanism is defined by schema activation of one node to another. The rationale is that retail store equity represents a store node and corporate reputation represents a corporate node. These two nodes are linked to each other directly and indirectly through shared associations. With respect to the directionality of the link between the two nodes, it is possible to refer to the retrieval of information that occurs through spreading activation (e.g., Anderson 1983). According to associative network theory, the activation and links between two concepts can point in two directions. Second, consumers refer to schemata when they have to make choices about where to purchase (Marshall 1995). Thus, schemata influence consumers' shopping decisions. To explain which of the nodes predicts loyalty more strongly, it is possible to rely on the strength of the linkages of both concepts, which can be explained by the degree of activation. As the strength of activation and the number of connections between a node and its associations increases with practice, it is assumed that the node that is related to the store makes a greater contribution to influencing store loyalty.

The analysis is based on three consecutive studies. First, a large consumer sample was surveyed at 30 locations of one German do-it-yourself (DIY) retailer (N = 5,600). This study applies a non-recursive structural equation model to analyze the cross-sectional data, which allows modeling and analysis of feedback relations. Second, two longitudinal designs, one in the fashion (N = 203) and one in the grocery sector (N = 209), were implemented using three waves in one medium-sized German city over a period of eight months. Two cross-lagged designs for structural equation modeling were performed to ana-

lyze the longitudinal data. This approach addresses the shortcomings of a cross-sectional analysis for reciprocal relationships (i.e., equilibrium and stationarity). Third, an experimental study was conducted using a 2 x 3 design (a real or fictional retailer with a corporate, store, or control message). In the first setting, respondents first had to read either a corporate, store, or control message about the fictional DIY retailer (N = 165) and then respond to a questionnaire. In the second setting, the respondents had to read either a corporate, store, or control message about a real DIY retailer (N = 167) and then respond to the questionnaire. The data were analyzed using regression analysis. With this approach, it is possible to finally establish whether reciprocity exists in both fictional and real retail settings.

The results of Study 1 contribute in several aspects to the current knowledge. First, although the marketing rule of reciprocity may result from practical experience, it is beneficial to provide scientific evidence as to whether there are interrelations between concepts that belong to different perception levels. Thus this study goes beyond the scope of other scholars that examine unidirectional relationships. Second, this study contributes to theory because the conceptualization of reciprocal relationships for associative concepts can be explained using schema theory. Third, the results considering the strength of retail store equity and corporate reputation for store loyalty enhance the knowledge of retailers' possibilities in allocating their investments more efficiently.

3.2. *Competition Effects in Local Markets*

The general objective of Study 2 is to explore the retail brand effects in the light of local competition and in conjunction with stores' locally perceived accessibility. In detail, this study examines whether retail brand equity or store accessibility of one focal retailer determines customers' store loyalty more strongly towards the focal retailer. Furthermore, the study explores the respective effects concerning competitors, i.e. the effects of competitors' retail brand equity and competitors' store accessibility on consumers' store loyalty towards the focal retailer. Additionally, the study aims to analyze how the effects concerning consumers' perceptions toward the focal retailer (i.e., between retail brand equity, store accessibility, and store loyalty) are influenced through objective local competition. In detail, the study examines the influence of local competitive intensity and distance to the next competitor on the ef-

fects that exist for the focal retailer. From a theoretical perspective, schema theoretical reasoning and associative network theory explain the effects, and especially the strength of effects, that determine store loyalty, i.e. whether retail brand equity or store accessibility has a greater impact on store loyalty. Furthermore, the study draws on the theory of allocation of time (Becker 1965) and the law of retail gravitation (Reilly 1931) to explain the objective competitive effects on the relationships concerning one focal retailer. From a managerial perspective, the study aims to add further knowledge on consumers' local brand and location perceptions affecting store loyalty in different competitive situations. Thus, retailers may gain insights concerning future site selection and the allocation of investments through building the retail brand and location choice.

The motivation for this specific view is threefold. First, although retail branding has gained considerable importance in retailing, the opinions considering the relevance of location are contrasting. Whereas Bell, Ho and Tang (1998) found that location is no longer the most important attribute in influencing store choice, others point out that location is still of incredible importance for retailers (Grewal, Levy, and Kumar 2009; Interbrand 2012). Therefore, it remains to be answered which of both constructs has a stronger influence on customer store loyalty because store loyalty is an important driver of retailers' success. Second, against the background that a retailer, namely a focal retailer, operates locally, different retail brands are present at each location and compete with the retailer's brand. Thus, in contrast to using relative perceptions of retailers (Hartman and Spiro 2005), it would be fruitful to know how subjective perceptions of competitors separately influence customers' local store loyalty towards the focal retailer. Third, as not only physical facilities, offers, and prices may differ between each store a retailer operates (Ou, Abratt, and Dion 2006), the objective local competitive situations, e.g. the competitive intensity, also vary between the different locations of a retailer (Seiders et al. 2005). Thus, it should be established how the effects determining consumers' store loyalty towards the focal retailer vary for different, objective competitive situations. Retailers' may need this knowledge to effectively allocate their investments through location search and decision and brand building actions.

In detail, the following research questions are examined:

- Does retail brand equity or a convenient, accessible store location provide a greater contribution to the store loyalty of a focal retailer?
- To what extent do the retail brand equity and store accessibility of local competitors affect store loyalty towards a focal retailer?
- How do different objective competitive situations affect the brand and location effects on a focal retailer?

The conceptual framework of Study 2 is twofold. First, the key underlying mechanism is examined through which retail brand equity and store accessibility determine store loyalty. The rationale is that general information regarding retail brands is stored at the corporate (retail brand) level. Thus, retail brand equity refers to superior-level associations (corporate node) rather than store-level information (store node), such as store accessibility. As consumers refer to information stored in their minds when making decisions (Marshall 1995), consumers also retrieve corporate and store information concerning different local retailers in order to decide where to purchase. Thus, perceptions towards the focal retailer's and competitors' retail brand and accessibility influence store loyalty towards the focal retailer. Second, the study draws on two further theories to describe the moderating effects of competitive intensity and distance to the next competitor on the focal retailer's effects concerning retail brand equity and store accessibility. Therefore, we follow Dellaert et al. (2008), who asserted that varying contexts influence mental representations or information retrieval and thus also influence the determining effects on store loyalty. In detail, the theory of allocation of time is used to explain the influence of local competitive situations on the effect of store accessibility. The law of retail gravitation is used to explain the influence of local competitive situations on the effects of retail brand equity.

To illuminate this issue, this analysis draws on a cross-sectional data sample from 30 German cities involving 4,151 customer interviews on the perceptions considering one focal retailer and its' local competitors. Additionally, the data on the objective local competitive characteristics (number of competitors and the relevant distances to the next competitor) were provided by the store managers. Two multiple-group structural equation models were applied to an-

alyze the cross-sectional data. With this approach, it is possible to test whether the effects on consumers change due to different competitive situations.

The results of this study contribute in several ways to the current knowledge. First, these findings contribute to alleviating the recent lack of research on location topics that was mentioned by Grewal, Levy, and Kumar (2009). Second, the findings enhance the existing knowledge on the relevance of retail brand equity and store accessibility for retailers in that empirical evidence considering the trade-off decision between both constructs for loyalty can be given. Third, in analyzing the moderating effect of objective local competitive situations, this study goes beyond the research that considers direct effects of, e.g., the number of competing stores, on consumer behavior (Talukdar, Gauri, and Grewal 2010).

3.3. Format Perceptions in Developed Markets and Emerging Countries

The general objective of Study 3 is to explore the perception and drivers of retail brands in the light of different retail formats, i.e. competing categories that are designed to match the needs of consumers (González-Benito, Muñoz-Gallego, and Kopalle 2005), considering retailers from developed markets doing business with the same retail formats in emerging countries. In detail, the study analyzes whether the core attributes of a specific format (format-specific attributes) are perceived equally in a developed and therefore saturated market and in an emerging market. Furthermore, the study analyzes whether these core attributes are driving the brand equally within a specific format in both markets. The study draws on the idea of the stimulus-organism-response (S-O-R) framework (Russell and Mehrabian 1976; Thang and Tan 2003) in that consumer perceptions of specific retail attributes (stimulus) influence retail brand equity (organism), which in turn influences customers' store loyalty (response). From a managerial perspective, this research is of interest to managers because they frequently use their retail format(s) for foreign expansion and need to know whether customers abroad perceive the format in a similar manner. They need to know especially whether the format-characteristic attributes are driving the brand equally, whereas the latter is known to determine consumers' loyalty and retailers' market success. Thus, retailers gain knowledge to efficiently manage their format and retail brand abroad and thus enhance performance.

The motivation for this specific view is threefold: First, despite the large number of retail attributes, only a few of them are involved in format research, e.g. choice and price (Tordjman 1994; Burt and Sparks 1995), price and store size (González-Benito 2005), or price, choice, and service (Solgaard and Hansen 2003). Thus, considering a broader range of retail attributes seems to be a fruitful research stream to enhance format knowledge. Second, although retailers increasingly enter foreign and especially emerging markets (Swoboda, Elsner, and Morschett 2012) with their preferred store formats (Gielens and Dekimpe 2001), there is still a need to analyze consumers' perceptions of formats abroad as most research on formats does not focus on the perceptions of formats internationally. Third, research on the role of core attributes in the brand-building process appears to be a fruitful research stream due to the relevance thereof for retailers doing business abroad and the lack of studies on this topic.

In detail, the following research questions are examined:

- Are the core attributes of a particular retail store format perceived similarly by customers in developed and emerging countries?
- Do the core attributes determine the retail brand equity equally within a specific format in both developed and emerging countries?

The conceptual framework of Study 3 is twofold. First, the format-specific core attributes are explained and assumed to be equal over saturated and developing markets. The rationale is that retailers using their preferred formats abroad (Gielens and Dekimpe 2001) need especially to adapt their offers in grocery retailing. However, this adaptation is assumed to take place within the boundaries of core format attributes. Thus, although offers are adapted, retailers adapt in relation to their competitors abroad in order to retain their relative format position towards competitors. Second, it is assumed that the core attributes drive the retail brand formation process equally in saturated and developing countries. Third, it is hypothesized that retail brand equity positively influences store loyalty. Thus, in the style of a stimulus-organism-response framework, retail attributes are frequently conceptualized as antecedents for retail brand equity (Yoo, Donthu, and Lee 2000; Ailawadi and Keller 2004; Jinfeng and Zhilong 2009), as is retail brand equity for store loyalty (Pan and Zinkhan 2006; Finn and Louviere 1996).

The analysis of Study 3 is based on two consumer data samples concerning traditional grocery formats (discounters, supermarkets, and hypermarkets). The context of grocery retailing is chosen as it is the most important retail sector (Zentes, Swoboda, and Foscht 2012). Cross-sectional designs have been applied in one medium-sized city in Germany (N = 919) and in one medium-sized city in Romania (N = 1,540). Each respondent had to evaluate one grocery retailer that is categorized either as discounter, supermarket or hypermarket. The data were analyzed using multiple-group structural equation modeling. This approach allows testing for differences between brand formation processes in Germany and Romania within each format.

The results of this study contribute in several ways to the current knowledge. First, the findings extend the field of retailing research, especially the research considering consumer behavior and comparing different countries. In having a greater understanding of how a specific format is perceived abroad and how the brand formation process is shaped within each format, the results of the study further our understanding of consumer behavior in turn. Second, managers gain a tool to explore and understand the perceptions of their customers abroad, i.e. for comparing home and emerging countries. Thus, the findings of the study and the tool used will help managers to efficiently adjust their marketing efforts in both types of countries.

4. Further Remarks

The three studies on retail branding in different retail contexts investigate the aforementioned concrete research questions. In the following, each study is organized as follows:

- introduction,
- conceptual framework,
- hypothesis development,
- empirical study,
- discussion, and finally
- limitations and further research.

This structure is given, regardless of the theory applied. Study 1 uses schema theoretical reasoning and associative network theory, as does Study 2. However, to explain the effects of the local competitive situations, Study 2 also uses the theory of allocation of time and the law of retail gravitation. Study 3 is designed similarly to the stimulus-organism-response (S-O-R) framework.

The structure is also independent of the methods applied, although each research objective requires an individual methodological approach. However, each study was also conducted using specific research designs and in different retail sectors. Study 1 uses non-recursive structural equation modeling to analyze consumer data on stores of a do-it-yourself (DIY) retailer using a cross-sectional design, a cross-lagged design for structural equation modeling in a longitudinal design with consumer data on fashion and grocery retailers, and regression analysis to analyze consumer data on a fictional and a real DIY retailer that have been conducted using an experimental design. Study 2 uses multiple group structural equation modeling to analyze cross-sectional consumer data on a DIY retailer at 30 locations in conjunction with secondary data considering the objective local competition, i.e. number and distance of competitors. Study 3 also uses multiple group structural equation modeling and additionally mean value difference tests to analyze consumer data on grocery retailers in two countries, where the data was collected in a cross-sectional design.

After exploring the concrete research questions in the three studies, a summary of the implications is given in response to the general research questions in Chapter E and the thesis is finally rounded off with an outline of further research issues considering the three studies.

B. Study 1: Reciprocal Effects of the Corporate Reputation and Store Equity of Retailers

1. Introduction

Retailers are increasingly focused on their corporate reputations and the position of their stores as strong brands in local markets. For example, Starbucks invests in both its corporate reputation and its retail brand (Pellet 2006) to strengthen intangible assets and performance (Jinfeng and Zhilong 2009; Brown et al. 2006) as well as to attract consumers (e.g., Nguyen and Leblanc 2001). Although these investments by retailers such as Starbucks aim to strengthen corporate and store perceptions among consumers, Stanley and Sewall (1976) noted in the 1970s that the perceptions of a corporation may be a function of the perceptions of an individual store and vice versa. Thus, these authors address important bidirectional relationships in consumer memory. To analyze such relationships, the present study focuses on the reciprocal effects of corporate reputation and retail store equity from the consumer's perspective. Corporate reputation is defined as the overall evaluation of a retail corporation by consumers (e.g., responsibility), which is primarily determined by the firm's corporate communications (Van Riel and Fombrun 2007; Walsh and Beatty 2007). Retail store equity is defined as consumer perceptions of a retailer's store as a strong brand in the local market, which is determined by local store attributes (Hartman and Spiro 2005; Yoo, Donthu, and Lee 2000; Jinfeng and Zhilong 2009); however, consumer perceptions vary for each store in a retail chain (Bloemer and De Ruyter 1998; Ou, Abratt, and Dion 2006; Jinfeng and Zhilong 2009). The reciprocity between the more general corporate-related associations and more specific store-related associations is an overlooked research topic in retailing. However, this topic is particularly important for retailers because they have to take reciprocal effects into account when allocating resources, for example, promotional investments across corporate and store levels. Furthermore, reciprocity is not easy to manage, as different organizational units may be responsible for reputation and equity (e.g., CEO/corporate communication and marketing/sales).

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The retailing literature rarely addresses reciprocal relations. The interdependencies between consumer associations of different perceptional levels are undisputed, but only a few studies analyze them bidirectionally. Early conceptual references to possible reciprocal relationships are provided by Atkin (1962) and Stanley and Sewall (1976). The study by Helgesen, Ivar Håvold, and Nesset (2010) addresses two perceptional levels and shows that chain image positively influences store image through a top-down relationship. Further studies address the bottom-up effects of store brands (private labels) on store image (Grewal et al. 1998) and the top-down effect of shopping mall image on store images (Chebat, Sirgy, and St-James 2006). However, nearly all existing studies adopt a unidirectional empirical approach, although some assume the existence of a reciprocal relationship between associative constructs. One exception is the study by Kwon and Lennon (2009), who analyzed the interdependencies between beliefs and attitudes of offline and online brands for multichannel retailers. However, these authors addressed a specific context and considered a crosswise rather than reciprocal relationship. Nguyen and Leblanc (2001) also aimed to test for a relationship between reputation and image but only applied an interaction term. Thus, apart from the undisputed importance of retailer efforts to support associations between a corporation and its stores, the directionality of the effects remains unclear, for example, that between, corporate reputation and store equity. Building on the theoretical reasoning of schemata and associative networks, we believe that a reciprocal relationship exists and, more importantly, that the influence of each construct on consumer store loyalty differs in strength when comparing direct and total (i.e., the sum of direct and indirect/reciprocal) effects.

Therefore, the objective of this study is to conceptualize and test the reciprocal relationships between customer perceptions of corporate reputation and retail store equity with regard to their mutual influence on store loyalty. Specifically, we aim to analyze the following research questions: Is there actually a reciprocal relationship between corporate reputation and retail store equity? Does corporate reputation or retail store equity have a stronger effect on store loyalty?

By responding to these questions, this study contributes to retailing research, particularly with respect to the reciprocal relationships between the perceptions of consumers regarding the corporation and the store. From a theoretical

perspective, we build on the suggestion of Stanley and Sewall (1976), who stated that consumer perceptions of a corporation may influence their perceptions of a store and vice versa. Thus, we enhance the existing knowledge concerning unidirectional effects in retailing. Additionally, we address store loyalty as an important issue that is still worthy of further research (Peterson and Balasubramanian 2002; Puccinelli et al. 2009) but also as a well-researched outcome variable, which makes it easier to evaluate our reciprocal observations. From a methodological perspective, we provide insights into possible methods of successfully analyzing bidirectional relationships using studies with cross-sectional, longitudinal, and experimental designs. Finally, this study is of interest to managers; because they seek to strengthen corporate and store effects on consumer behavior, they can learn what the interrelations between these factors look like (i.e., which level more strongly determines consumer behavior) beyond their practical experience and thus gain insights on how to allocate promotional investments.

The remainder of the article is structured as follows. Based on a literature review and schema theory, we derive hypotheses that form the basis for three subsequent empirical studies with cross-sectional, longitudinal, and experimental designs. The aims, designs and results of these studies will be discussed and followed by conclusions, limitations and directions for further research.

2. Literature Review

Prior research on bidirectional relationships in retailing is sparse and is distinctive from research on unidirectional relationships (see Table B–1). However, the literature has been reviewed, by focusing on two perspectives: studies that combine two perceptional levels, such as the corporate, store or store brand (private label) levels, and studies that consider one perceptional level (e.g., the corporate level only). Both types of research consider either bidirectional or unidirectional relationships but typically do not empirically study the assumed bidirectional relationships.

Study	Research question	Research type	Sample and method	Core findings
Studies considering concepts at different perception levels				
Unidirectional relationships				
Bao, Bao, and Sheng (2011)	The study tests the effects of selected extrinsic cues on customers' evaluation of a private brand.	Empirical consumer study via questionnaire	Structural equation modeling N=639	Store image has a positive effect on store brands and consists of various dimensions such as store atmosphere, store service, quality of merchandises, and store location. The authors prove that a strong store image influences both a retailer brand and its brand extension positively.
Chebat, Sirgy, and St. James (2006)	Social class image of a mall has an impact on the quality perceptions of the stores that are accommodated within the mall.	Empirical consumer study; experiment with 3x2x2 factorial design	Analysis of variance N=200	It is found that the image of a mall determines store image, especially the look and the service dimension. By comparing upscale and downscale malls, the authors found that upscale malls lead to higher store quality perceptions, especially with regard to look and service dimensions.
Grewal et al. (1998)	Analysis of the influence of store and brand name, as well as of price discounts on consumer evaluations and purchase intentions.	Empirical consumer study with 2x2x2 between subject design	Structural equation modeling N=335	Empirical evidence is presented that a strong store brand has a positive influence on store image. Furthermore, proof is given of the predicted positive effect of brand name on perceived brand quality. Despite this, brand quality evidently has a positive effect on perceived store image.
Helgesen, Ivar Håvold, and Nesset (2010)	The authors focus on examining the effects of chain and store image on customers' satisfaction and loyalty.	Empirical consumer study via questionnaire	Structural equation modeling N=151	A positive effect of chain image on store image can be confirmed empirically. Chain image influences both store image and store satisfaction positively. Although a direct link between chain image and store loyalty could not be detected, an indirect link was identified. Chain image is indirectly linked via store satisfaction, via store image and via the relationship between store image and store satisfaction to store loyalty.
Kirkup and Rafiq (1994)	The researchers focus on answering the question of whether the tenant mix influences the perception of a shopping mall.	Case Study, first three years of trading by a shopping center	-	It is stated that the image of a shopping center is influenced by the image of the combination of stores within such a center. Thus, obtaining an attractive tenant line-up is seen as a core requirement to attract and retain customers, given that the center image is largely made up by the tenant mix.
Nevin and Houston (1980)	Addition of retailer image to the Huff model (1964) does enhance the predictions of consumers' choice within intra-urban shopping areas.	Empirical consumer study via questionnaire	Regression analysis N=827	It is shown that the image and the choice of a shopping area are dependent on the presence of a special store in a particular area. Consumers are less drawn to a certain shopping center because of its overall image but rather because of the existence of a particular store within the center.

(Table to be continued)

Table B–1 (continued)

Bidirectional relationships				
Ailawadi and Keller (2004)	The authors focus on the creation of a retailer brand and therefore integrate branding principles to gain a better understanding of the concept.	Conceptual	-	Bidirectional relationships are assumed on the store as a brand, including store image. A retailer brand image can be created in different ways, including the attachment of unique associations to service quality, product assortment, pricing and/or credit policy. Furthermore, the image of a retailer brand also depends on the manufacturer brands they offer.
Atkin (1962)	Research on how advertising and face-to-face-communication affects the choice of a supermarket.	Empirical consumer panel survey	Regression analysis N=145	When a change of residence occurs, former experience with a certain store is related to the company as a whole and transferred to a store at the new place of residence. Consumers tend to choose a store with which they were already familiar in their old neighborhood. The linking of associations, from store to corporation and from corporation back to store, provides conceptual evidence that associations are bidirectional.
Grewal, Levy, and Lehmann (2004)	The authors focus on how customer loyalty might be improved.	Conceptual	-	The authors assume bidirectional relationships on the store as a brand, including store image. They refer to Sayman and Raju (2004), who examined analytically and empirically whether retailers should have more than one store brand. They describe a complex interplay between national and store brands.
Jacoby and Mazursky (1984)	Investigation of the link between retailer image and manufacturer image.	Empirical consumer study; exploratory test of hypotheses	Exploratory investigation using a standard semantic differential scale, N=168	The results suggest that the brand and the image of a store are linked to each other. In addition, it is concluded that an averaging process is initiated when brand and retailer images affect each other, so the party with the more favorable image will be negatively affected, while the image of the party with the less favorable image is improved.
Martenson (2007)	How corporate store image affects customer satisfaction and store loyalty.	Empirical consumer study via mail questionnaire	Structural equation modeling N=1,000	Although not tested empirically, the existence of a reciprocal relationship between store brand and store image is assumed. However, empirical evidence is provided that store image has the strongest influence on corporate image, followed by store brands and manufacturer brands.
Stanley and Sewall (1976)	How retailer image can be added to the Huff Model, which estimates retail trade potential using variables such as size of trading site.	Empirical consumer study via questionnaire	Multi-dimensional scaling N=93	Despite improving the Huff model by the addition of chain image, the authors also make conceptual references to a possible bidirectional relationship in positing that chain image perceptions are related to store perceptions and vice versa, therefore the consumer's store perceptions can be seen as a function of the characteristics of the retail outlets.

(Table to be continued)

Table B–1 (continued)

Studies focusing concepts at one perception level				
Unidirectional relationships				
Burns (1992)	Image transference or, more precisely, focus on whether the image of an anchor store in a shopping complex has an impact on the image of a small and little-known store within such a shopping complex.	Empirical consumer study; experiment with 2x2 factorial design	Analysis of Variance N=369	The image of a well-known retailer's store is transferred to an unknown retailer's store within a shopping area. Consumer's perceptions of smaller, less-known stores are influenced by the image of an anchor store in the same shopping center. The image of the anchor store "spills over" and improves the image of the smaller store.
Jinfeng and Zhilong (2009)	The authors investigate the impact of store image on store equity.	Empirical consumer study via questionnaire	Structural equation modeling N=530	The effect of store image on store loyalty was verified empirically. Despite this, it was noted that store image dimensions, such as price, service facilities, and institutional factors, have a positive impact on store loyalty. Furthermore, store image dimensions positively impact store equity.
Bidirectional relationships				
Kwon and Lennon (2009)	The authors focus on examining the reciprocal effects between offline and online brand images of multichannel retailers.	Empirical consumer study with experimental design	Analysis of Variance N=650 (experiment 1) N=630 (experiment 2)	The two experiments conducted found significant positive crosswise effects. Offline brand beliefs affect online brand beliefs and online brand beliefs influence offline brand attitudes.
Nguyen and Leblanc (2001)	The study investigates the customer's retention decision, especially the relationship between corporate image and corporate reputation.	Empirical consumer study via questionnaire	Regression analysis N=788	The positive interrelationship of corporate reputation and corporate image was confirmed by the positive interaction effect of both constructs on store patronage. Adding the interaction between the constructs leads to a better explanation of the customer's retention decision. It becomes apparent that either corporate image or corporate reputation intervenes as a moderator variable and thus enhances the effect of the other variable on the customer's loyalty.

Table B–1: Literature review

Source: Own creation.

2.1. Studies Considering Concepts at Different Perceptional Levels

Early references to bidirectional relationships at different perceptional levels were introduced by Atkin (1962) and Stanley and Sewall (1976). Atkin (1962) analyzed whether a change in supermarket choice can be determined by advertising or personal communication. In a survey of consumers who had recently moved to a new apartment building, he assumed that former experience with a store is related to the company as a whole and then transferred to a store at the new place of residence. This linking of associations, from store to corporation and from corporation back to store, provides conceptual evidence that corporate and store-level associations are bidirectional. Stanley and Sewall (1976) focused on the improvement of retail trade forecasts by including chain image in the Huff model (Huff 1964). The authors also make conceptual references to a possible bidirectional relationship in positing that chain image perceptions are related to store perceptions and vice versa.

More recent studies that assumed bidirectional relationships focused on the store as a brand, including store image (Grewal, Levy, and Lehmann 2004) and store brands (Ailawadi and Keller 2004). Although Jacoby and Mazursky (1984) had previously posited that product brand and store image are linked to one another, Martenson (2007, p. 547) suggested the existence of a reciprocal relationship between store brand and store image, although she did not test this assumption empirically. However, she provided empirical evidence that store image has the strongest influence on corporate image, followed by (in ranked order) store brands and manufacturer brands.

Subsequent studies addressed unidirectional relationships between different perceptional levels. Helgesen, Ivar Håvold and Nesset (2010) found a positive effect of chain image on store image. Grewal et al. (1998) presented empirical evidence that a strong store brand has a positive influence on store image. However, Bao, Bao and Sheng (2011) described an effect of the opposite type: store image had a positive effect on store brands. Further studies addressed shopping area and shopping mall image. Nevin and Houston (1980) suggested that the image and the choice of a shopping area are dependent on the presence of a special store in a particular area. Kirkup and Rafiq (1994) stated that the image of a shopping center is influenced by the image of the

combination of stores within such a center. In contrast, Chebat, Sirgy and St-James (2006) found that the image of a mall determines store image.

2.2. Studies Considering Concepts at One Perceptional Level

References to bidirectional relationships at the same perceptional level were made by Nguyen and Leblanc (2001) and Kwon and Lennon (2009). Nguyen and Leblanc (2001) examined whether corporate reputation and corporate image had a positive effect on store patronage. The positive interrelationship of corporate reputation and corporate image was confirmed by the positive interaction effect of both constructs on store patronage. Kwon and Lennon (2009) conducted two experiments that found positive crosswise effects: offline brand beliefs affect online brand attitudes, whereas online brand beliefs influence offline brand attitudes.

Other studies that have considered these effects on one perceptional level focused on unidirectional relationships, such as the image transference of a well-known retailer's store to an unknown retailer's store in a shopping area (Burns 1992) or the effects of store image on store equity (Jinfeng and Zhilong 2009). Furthermore, a large body of research can be categorized as being focused on one perceptional level and unidirectional. For example, all studies that have analyzed the effects of different retail marketing attributes on consumer behavior, (e.g., service and store layout perceptions on story loyalty) and all studies that have examined on the effect between retail marketing attributes (e.g., price perception on quality perceptions) consider these effects at a single level.

In summary, we draw three conclusions from the literature review. First, the number of studies that address concepts at a single perceptional level is greater than the number of studies that focus on the effects of concepts at multiple perceptional levels. In addition, few studies examine both the corporate and store levels. Second, only one study examines relationships at different perceptional levels for chain store retailers (Helgesen, Ivar Håvold, and Nesset 2010). However, it is particularly relevant for chain store retailers to determine how concepts at the corporate and store levels interact because corporate reputations are managed through corporate communication units at headquarters, whereas retail store equity is primarily managed by store man-

agers. Third, the relevance and the probable existence of bidirectional relationships have been tested empirically in only two studies: Nguyen and Leblanc (2001) tested for a relationship at a single perceptional level but only applied an interaction term showing that corporate reputation and image are positively related to one another in affecting store patronage; Kwon and Lennon (2009) considered a crosswise rather than reciprocal relationship, as four constructs were involved in their study, and thus, they did not test for a direct bidirectional relationship between two constructs. Thus we find that both approaches are not applicable to solve our research question concerning reciprocity.

3. Conceptual Framework and Hypothesis Development

Scholars have previously examined unidirectional relationships from different theoretical perspectives, including the halo effect (Burns 1992), self-congruity theory (Chebat, Sirgy, and St-James 2006), signaling theory (Martenson 2007), and the summative model of attitude, which was used in the only study that aimed to test a bidirectional relationship (Kwon and Lennon 2009, p. 377f.). Addressing our research questions requires the application of a theory that is able to explain reciprocal relationships between associative constructs and link these relationships to consumer behavior. Following research that explains the effects of customer-based associative concepts through schemata and memory networks (e.g., Krishnan 1996; Hartman and Spiro 2005; Keller 1993), we use schema theoretical reasoning to explain the reciprocal relationships between corporate and store information stored in consumer memory and their effects on store loyalty (see Figure B-1). In the following sections, we first hypothesize that corporate reputation and retail store equity are reciprocal and then hypothesize concerning the effects of these constructs on store loyalty.

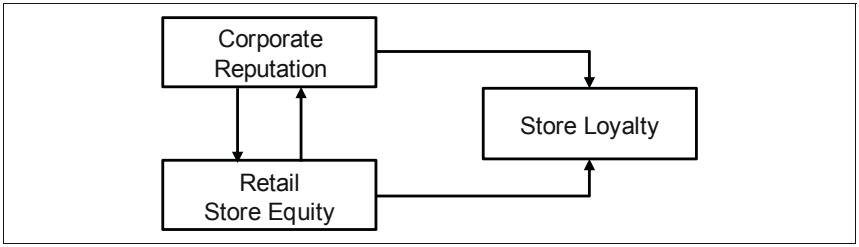

Figure B–1: Conceptual framework
Source: Own creation.

3.1. Hypothesis Regarding the Reciprocity between Corporate Reputation and Retail Store Equity

Schemata are organizing mechanisms for cognition (Puligadda, Ross Jr., and Grewal 2012; McVee, Dunsmore, and Gavelek 2005). They are based on past experience and can refer to situations or objects (Mandler 1979). Although schema and memory models differ in their form and underlying assumptions (e.g., Anderson 1983; Murdock 1982; Hintzman 1986; Collins and Loftus 1975), most of them view memory as a network. This network consists of nodes or concepts, such as objects and attributes, which represent stored information (e.g., Nelson et al. 1993) and links between these nodes. For example, consumers hold information about a corporation and its stores, as well as links between them, as nodes in their minds. Considerable evidence suggests that networks can take many forms based on the nature of the cues used to access them (e.g., Barsalou 1983). Our examination of reciprocity begins with the premise that brand representations are not cognitively independent. In general, researchers have conceptualized associations, especially among brands, by using both the categorization and associative network theories.

Categorization theory implies that a consumer's cognitive representation follows a hierarchical structure, often assuming a product category node at the highest level, followed by subcategories, brands, and, finally, attributes (e.g., Hutchinson, Raman, and Mantrala 1994; Nedungadi 1990). Scholars using the categorization model mostly focus on analyzing relations between product brand and category and product brand and subcategory rather than relationships between brand and brand (e.g., Krishnan 1996; Cowley and Mitchell 2003; Campbell and Keller 2003; Lei, Dawar, and Lemmink 2008). In our con-

text, corporate reputation may be related to a brand node, whereas retail store equity may represent a subcategory, e.g., store node. When consumers are confronted with new information, e.g., a new store, they try to integrate it into an existing corporate brand node to facilitate the formation of attitudes toward the new entity (e.g., Boush and Loken 1991). If categorization is successful, consumers transfer their corporate associations to the new entity (the new store). Our literature review supports such conceptual reasoning on bidirectional relationships between a retail corporation and a retail store (e.g., Atkin 1962; Stanley and Sewall 1976). This reasoning might also hold for the contradictory directionalities between store brand and store image (Grewal et al. 1998; Bao, Bao, and Sheng 2011; Martenson 2007).

Associative network theory (Collins and Loftus 1975) states that there are many types of relations between nodes. In general, knowledge is conceptualized as consisting of a node and a variety of associations that are linked to each other, such as attributes, brand claims, and experiences (Keller 1993; Morrin 1999; Keller 2003). Scholars using this theory focus, for example, on brand portfolio information consisting of a set of interconnected brand nodes (e.g., Farquhar and Herr 1993; Lei, Dawar, and Lemmink 2008). In a retail context, a brand node, referring to the retailer's corporate brand, is linked to other brand nodes, such as those of chain brands (within diversified retailers) or stores as strong brands in local markets (within both diversified and non-diversified retailers), which may have strong or weak links with each other. In our context, the directionality between corporate reputation (chain reputation for diversified firms) and stores as strong brands in local markets is of particular interest. Corporate reputation represents a corporate node and retail store equity refers to a store node, and these are linked to each other directly and indirectly through shared associations. To understand the directionality of the links between both concepts, one can refer to the effects of information retrieval, which occurs through spreading activation (Collins and Loftus 1975; Anderson 1983; Puligadda, Ross Jr., and Grewal 2012). According to associative network theory, the activation and links between two concepts can point in two directions. Thus, the activation of a corporate node by external information spreads to related store nodes through associative network linkages and vice versa. For example, the node related to the corporation may be activated if a

consumer watches a corporate communication spot on television or reads a newspaper article about the corporation. Through spreading activation, other related nodes, such as the store-related node, are activated. Thus, a consumer may be reminded of the store of the company where he usually shops. Conversely, an activation of the store-related node, e.g., through promotion or a direct positive shopping experience, results in spreading activation to other nodes. For example, talking to a well-trained and courteous sales clerk who helps with a product decision may cause the consumer to think about a corporation that attaches importance to the selection of good employees. Although these examples are constructed upon active cognitive thought processes, reciprocal activation across nodes takes place in the minds of consumers. The underlying relationship is positive in most of the cases when consumers hold positive associations toward the corporation and the store in their minds, whereas perceived inconsistencies by consumers are known to activate negative associations (e.g., Tse et al. 2007; Roehm and Tybout 2006; Lei, Dawar, and Lemmink 2008). However, as a first step, we propose to test the existence of a positive reciprocal relationship between corporate reputation and retail store equity. Thus we hypothesize the following:

H1. Corporate reputation and retail store equity have a positive reciprocal relationship.

3.2. Hypothesis Regarding the Effects of Corporate Reputation and Retail Store Equity on Story Loyalty

To understand the effects of corporate reputation and retail store equity on store loyalty, it is useful to refer to the early work of Sirgy and Samli (1985), who argued that schemata can explain store loyalty, which is defined as the intention and readiness to repurchase at a store or to recommend a store (Evanschitzky and Wunderlich 2006; Oliver 1999). This understanding describes conative loyalty as a “deeply held commitment to buy” (Oliver 1999, p. 35), which forms the penultimate stage in the formation of loyalty (Harris and Goode 2004) and is viewed as a core predictor of consumer spending (Macintosh and Lockshin 1997). Schemata are said to help consumers to make choices about where to purchase and also influence shopping decisions (Crocker 1984; Grewal, Levy, and Kumar 2009; Grewal and Levy 2009). Understanding corporate reputation and retail store equity as consumer associa-

tions pertaining to a retailer and its stores will influence consumer loyalty. This conclusion is consistent with past research on the positive effects of corporate reputation on store patronage (Walsh, Beatty, and Shiu 2009; Nguyen and Leblanc 2001) and the positive effects of retail store equity on loyalty (Jinfeng and Zhilong 2009). Consequently, associations about a corporation and a store determine store loyalty.

However, whether corporate reputation or retail store equity is responsible for a greater contribution to store loyalty is of interest. It is well known that consumers retrieve information stored in memory to make plans, solve problems, or make decisions and thus, to decide whether to repurchase at a store. To explain which of the concepts more strongly predicts loyalty, it is possible to rely on the strength of the linkages of both concepts. The strength of the linkages can be explained through the degree of activation. According to some scholars (Anderson 1983; Krishnan 1996; Lei, Dawar, and Lemmink 2008), the strength of activation and the number of connections between a node and its associations increases with practice, e.g., recurring experience with the store. Thus, the possibility of the retrieval of a node is reported to be higher the more connections it has and the more often it is activated. Following this reasoning, and knowing that the strength of the links is related to the degree of repetition, practice, and recurring experience (Eckblad 1981; Anderson 1983; Malle and Horowitz 1995; Cowley and Mitchell 2003; Campbell and Keller 2003; Lei, Dawar, and Lemmink 2008), it seems logical that the concept of the store and store-node-related associations are activated and updated more frequently and that the concept of the corporation and corporate-node-related associations are used and activated less frequently. This difference may occur because the store concept and store associations are activated with each shopping experience or recommendation, whereas the corporate concept is not always addressed through spreading activation. Another reason is that the corporate concept may be less frequently activated in a direct manner, for example, if consumers do not regularly read newspaper articles or watch corporate communication spots on television. Because the store node is activated more often, it is likely that this node and its associations are retrieved more often by consumers. Thus, we propose that retail store equity, in sum, will have a stronger influence on store loyalty than corporate reputation:

H2. The total effect (i.e., the sum of direct and indirect effects) on store loyalty will be more positive for retail store equity than for corporate reputation.

4. Empirical Study

To analyze our hypotheses, we conducted three consecutive empirical studies, including studies with cross-sectional, longitudinal, and experimental designs. First, we used a cross-sectional design on a large sample questioning do-it-yourselfers to briefly test the applied theoretical framework against alternative models. Second, we conducted a longitudinal design in two other retail sectors (fashion and grocery) to ensure generalizability and to overcome the statistical shortcomings of equilibrium and stationarity concerning the cross-sectional design. Third, we applied an experimental design to two different samples that study a real retailer and a fictional retailer to prove causality. This procedure provides a valid methodology to conduct a detailed analysis of reciprocal relationships. In the following section, we outline the aims and sample designs, measurements, method, the results, and main limitations for each study.

4.1. Study 1: Cross-Sectional Study

4.1.1 Aims and sample design

To analyze our hypotheses and test our theorized model for chain store retailers, we applied a cross-sectional sample that was obtained at 30 locations of a single retailer. To develop the sample, we collaborated with a chain store retailer in the home improvement and do-it-yourself (DIY) sector. The retailer has stores located in suburban areas all over the country and uses a standardized retail brand that is centrally coordinated and communicated. Because the corporation and its stores operate under the same brand, the brand name serves as a cue for consumers to retrieve corporate and store knowledge from memory (Biehal and Sheinin 2007). To ensure the independence of the perceptions of consumers with regard to the retailer's stores, we asked the CEO and sales area managers to suggest stores with varying degrees of success in 30 different cities. We verified that specific promotional activities were not conducted during or one week prior to the data collection period. Following

Verhoef, Langerak, and Donkers (2007), we created a sector-specific quota sampling based on age and gender with the aim of interviewing 170-200 consumers per city. The sample distribution of typical DIY consumers was provided by an independent national DIY organization.

After pre-tests were administered, the survey was conducted in each city using a standardized questionnaire and face-to-face interviews over a one-week period, with approximately the same number of interviews conducted each day. Every third person who passed the interviewers in the city center and conformed to the sample was asked to participate (similar to Orth and Holancova 2004). Each respondent was first asked to list the local DIY retailers that he or she knew. Only the respondents who knew the DIY retailer and the particular store under examination participated in the survey. We collected data from a total of 5,626 respondents. Then, we applied multivariate detection of outliers according to Mahalanobis' D^2 divided by the number of variables involved (Hair et al. 2006, p. 75). As 26 cases yielded values above four, we excluded these cases from further analysis. This procedure yielded a total of 5,600 respondents, with an average of 186 respondents per city. The realized sample distribution satisfied the planned quota sample (see Table B–2). Prior to the detailed analysis of confirmatory and structural modeling through Mplus, we tested for univariate normality with regard to kurtosis and skewness (Finch, West, and MacKinnon 1997) and multivariate normality using Mardia's coefficient (Vlachopoulos 2008). All values indicated that the data are normally distributed.

N = 5,600	**Realized quota sample**			**Planned quota sample**		
Age groups	Male %	Female %	Total %	Male %	Female %	Total %
Age 16 to 29	9.7	4.2	13.9	8.4	2.6	11.0
Age 30 to 39	16.0	5.4	21.4	16.7	5.3	22.0
Age 40 to 49	19.8	6.4	26.2	21.3	6.7	28.0
Age 50 to 64	18.2	6.4	24.6	18.2	5.8	24.0
Age over 64	10.6	3.3	13.9	11.4	3.6	15.0
Total	74.3	25.7	100.0	76.0	24.0	100.0

Table B–2: Sample characteristics

Source: Own creation.

4.1.2 Measurement

All measurements were based on previous studies (see Table B–3) and were surveyed using seven-point Likert-type scales (from 1, indicating “strongly disagree,” to 7, indicating “strongly agree”).

Construct	Item		Dimensions	Source
Corporate Reputation	CR1	Retailer X has employees who treat customers courteously.	CO	Walsh, Beatty, and Shiu (2009)
	CR2	Retailer X has employees who are concerned about customer needs.		
	CR3	Retailer X is concerned about its customers.		
	CR4	Retailer X seems like a good company to work for.	GE	
	CR5	Retailer X seems to treat its employees well.		
	CR6	Retailer X seems to have excellent leadership.		
	CR7	Retailer X tends to outperform its competitors.	RFSC	
	CR8	Retailer X seems to recognize and take advantage of market opportunities.		
	CR9	Retailer X seems to have strong prospects for future growth.		
	CR10	Retailer X seems to make an effort to create new jobs.	SER	
	CR11	Retailer X seems to be environmentally responsible.		
	CR12	Retailer X would accept reduced profits to ensure a clean environment.		
	CR13	Retailer X is a strong, reliable company.	PSQ	
	CR14	Retailer X offers innovative products.		
	CR15	Retailer X offers high-quality products and services.		
Retail Store Equity	RSE1	Store X is a strong brand.	Verhoef, Langerak, and Donkers (2007)	
	RSE2	Store X is a well-known brand.		
	RSE3	Store X is an attractive brand.		
	RSE4	Store X is a unique brand.		
Store Loyalty	SL1	I am certain that I will shop at store X again.	adopted from Sirohi, McLaughlin, and Wittink (1998)	
	SL2	In the future, I will make more purchases at store X than at another retailer.		
	SL3	I would recommend store X to friends and others.		
Corporate Communication	CC1	Communication on company issues by retailer X is informative.	adopted from Kelly and Stephenson (1967)	
	CC2	I frequently see corporate communication activities from retailer X.		
	CC3	Information on what happens in the company of retailer X is believable.		
Store Attribute Perceptions	SAP1	Store X has a large variety of products.	Chowdhury, Reardon, and Srivastava (1998)	
	SAP2	The prices at store X are fair.		
	SAP3	The service at store X is excellent.		
	SAP4	Store X is appealing.		
	SAP5	Store X is convenient.		

Notes: CO = Customer Orientation, GE = Good Employer, RFSC = Reliable and Financially Strong Company, SER = Social and Environmental Responsibility, PSQ = Product and Service Quality.

Table B–3: Measurements

Source: Own creation.

Corporate reputation was measured according to the scale of Walsh, Beatty and Shiu (2009) by means of three items for each of the five dimensions (customer orientation, good employer, reliable and financially strong company, social and environmental responsibility, and product and service quality). We measured retail store equity according to the scale of Verhoef, Langerak and Donkers (2007) with four items (strong, well-known, favorable and unique brand). Store loyalty was measured using three items according to the scale of Sirohi, McLaughlin and Wittink (1998). The scales were pre-tested by means of two consumer focus groups and quantitatively tested in one city using a questionnaire (N = 170). The quantitative pre-test provides satisfactory values for reliability and validity. We included antecedents of corporate reputation and retail store equity as instrumental variables. The inclusion of these instrumental variables is a methodological requirement in non-recursive models that analyze reciprocal relationships (Kline 2011, p. 156). Because corporate communication is seen as a core antecedent of corporate reputation (Van Riel and Fombrun 2007; Walsh and Beatty 2007), this factor was included as an instrumental variable of corporate reputation and was measured with three items (adopted from Kelly and Stephenson 1967). Because store attributes are seen as the main antecedents of retail store equity (Jinfeng and Zhilong 2009; Ailawadi and Keller 2004; Yoo, Donthu, and Lee 2000), we included perceptions of store attributes as an instrumental variable and measured it using five items (according to Chowdhury, Reardon, and Srivastava 1998).

We also included some covariates in the study. As the sector-specific sample structure does not follow the general distribution of the basic population and as consumer behavior might be influenced by gender (0 = male, 1 = female) and age (Schenk, Löffler, and Rauh 2007), we controlled for both variables. We also included a variable that describes DIY ability as a covariate (self-reported on a four-point scale from beginner to expert) based on the suggestion of Pan and Zinkhan (2006), who posit that personality traits, such as self confidence, might be important in influencing store patronage. Furthermore, we included competitive intensity as a covariate, following Sloot, Verhoef, and Franses (2005). We measured this covariate as the number of competitors within a 2-mile radius, which was chosen according to information from the sales managers on relevant competitor distances in the retail sector, applying a median split (Gauri,

Sudhir, and Talukdar (2008), with 0 = two or fewer competitors and 1 = more than two competitors, according to Talukdar, Gauri, and Grewal (2010)). Finally, we included store familiarity, measured with a single item (according to Inman, Winer, and Ferraro (2009)), because it might influence store loyalty.

4.1.3 Method

To reduce the complexity of the subsequent model (Steenkamp, Batra, and Alden 2003), we used item parceling for corporate reputation. Rather than using five different latent constructs that each represent one dimension of corporate reputation, we used one item for each dimension, and this method yielded one latent construct with five items. The item parceling was performed by averaging the item scores (Bandalos 2002) for each dimension of corporate reputation. Therefore, prior to testing the overall measurement model in conjunction with corporate reputation in a confirmatory factor analysis (CFA) using parcels, we tested the original measurement scale of corporate reputation (i.e., the five dimensions) for reliability and validity (see Table B–4).

Construct	Item	Dimension	MV/Std.	FL	KMO	ItTC	α	CR	λ
Corporate Reputation	CR1	CO	5.0/1.3	.876	.752	.844	.938	.939	.880
	CR2		4.8/1.3	.961		.904			.948
	CR3		4.8/1.3	.904		.865			.914
	CR4	GE	4.4/1.2	.905	.747	.852	.924	.926	.910
	CR5		4.4/1.2	.944		.878			.928
	CR6		4.4/1.2	.839		.805			.856
	CR7	RFSC	4.4/1.4	.755	.720	.708	.876	.880	.789
	CR8		4.6/1.3	.921		.813			.883
	CR9		4.6/1.3	.849		.769			.862
	CR10	SER	4.3/1.3	.801	.715	.703	.836	.831	.861
	CR11		4.2/1.3	.880		.752			.833
	CR12		3.5/1.6	.731		.666			.705
	CR13	PSQ	4.7/1.3	.815	.744	.759	.891	.892	.850
	CR14		4.6/1.3	.888		.810			.861
	CR15		4.7/1.4	.865		.794			.859

Confirmatory model fit: CFI .975; TLI .967; RMSEA .065; SRMR .029; $\chi^2(80) = 1{,}946.024$.

Notes: CO = Customer Orientation, GE = Good Employer, RFSC = Reliable and Financially Strong Company, SER = Social and Environmental Responsibility, PSQ = Product and Service Quality; MV/Std. = Mean values and standard deviations, FL = Factor loading (exploratory factor analysis), KMO = Kaiser-Meyer-Olkin criterion (≥ .5), ItTC = Item-to-Total Correlation (≥ .5), α = Cronbach's alpha (≥ .7), CR = Composite reliability (≥ .6), λ = Standardized factor loadings (confirmatory factor analysis) (≥ .5).

Table B–4: Reliability and validity of corporate reputation

Source: Own creation.

To confirm the reliability of measurements, we ensured that the corrected item-to-total correlation was above .5 (Hair et al. 2006, p. 137). To assess construct reliability, Cronbach's alpha and composite reliability were computed. These values exceeded the recommended thresholds of .7 (Nunnally 1978, p. 245) and .6 (Bagozzi and Yi 1988, p. 80), respectively. With respect to validity, face validity was assessed by means of pre-tests. For construct validity, all of the factor loadings of the CFA were above .5 (Hair et al. 2006, p. 777), and the average variance extracted (AVE) values with a threshold of .5 provided support for convergent validity (Bagozzi and Yi 1988, p. 80).

Constructs	AVE	CO	GE	RFSC	SER
Customer Orientation (CO)	.837	-			
Good Employer (GE)	.806	*.741*	-		
Reliable and Financially Strong Company (RFSC)	.709	*.752*[a]	*.774*[a]	-	
Social and Environmental Responsibility (SER)	.621	*.615*	*.887*[a]	*.872*[a]	-
Product and Service Quality (PSQ)	.734	*.857*[a]	*.752*[a]	*.972*[a]	*.835*[a]
Confirmatory model fit: CFI .975; TLI .967; RMSEA .065; SRMR .029; $\chi^2(80) = 1{,}946.024$.					
Model comparisons with the confirmatory models that have fixed correlations:					
RFSC with CO: CFI .909; TLI .882; RMSEA .122; SRMR .072; $\chi^2(81) = 6843.116$; $\Delta\chi^2(1) = 4{,}897.092$.					
RFSC with GE: CFI .923; TLI .900; RMSEA .112; SRMR .047; $\chi^2(81) = 5789.950$; $\Delta\chi^2(1) = 3{,}843.926$.					
SER with CO: CFI .947; TLI .932; RMSEA .093; SRMR .040; $\chi^2(81) = 4003.854$; $\Delta\chi^2(1) = 2{,}057.830$.					
SER with RFSC: CFI .947; TLI .931; RMSEA .093; SRMR .037; $\chi^2(81) = 4033.713$; $\Delta\chi^2(1) = 2{,}087.689$.					
PSQ with CO: CFI .919; TLI .895; RMSEA .115; SRMR .062; $\chi^2(81) = 6086.436$; $\Delta\chi^2(1) = 4{,}140.412$.					
PSQ with GE: CFI .921; TLI .898; RMSEA .113; SRMR .050; $\chi^2(81) = 5918.583$; $\Delta\chi^2(1) = 3{,}972.559$.					
PSQ with RFSC: CFI .949; TLI .934; RMSEA .091; SRMR .032; $\chi^2(81) = 3843.388$; $\Delta\chi^2(1) = 1{,}897.364$.					
PSQ with SER: CFI .948; TLI .933; RMSEA .092; SRMR .038; $\chi^2(81) = 3909.966$; $\Delta\chi^2(1) = 1{,}963.942$.					

Notes: AVE = average variance extracted (≥ .5); values in italics represent squared correlations between constructs.

[a] For situations in which the criterion of Fornell and Larcker (1981) was violated, we also checked the discriminant validity using a chi-square difference test by following the approach of Anderson and Gerbing (1988). This procedure yielded satisfactory results because the nested model (the nested model is the more restrictive model with more degrees of freedom due to successively fixed correlations at value one) fits significantly more poorly ($p < .001$) than the comparison model. Thus, discriminant validity is assured.

Table B–5: Discriminant validity of corporate reputation

Source: Own creation.

We also tested the five latent constructs for discriminant validity (Fornell and Larcker 1981, p. 46). As some squared correlations exceeded the AVE values of the two respective constructs (see Table B–5), we additionally verified the discriminant validity using a chi-square difference test following the procedure of Anderson and Gerbing (1988, p. 416). For each violated case, we alternately compared the fit value of the proposed comparison model with the fit values

of a nested model. The nested model is a more restrictive model with more degrees of freedom due to a fixed correlation at value one between the two involved constructs. As the fits of all computed nested models were significantly poorer ($p < .001$) than that of the comparison model, discriminant validity can be assured. The fit values for this confirmatory model were satisfactory (CFI .975; TLI .967; RMSEA .065; SRMR .029; $\chi^2(80) = 1{,}946.024$) despite the χ^2/df value (Hinkin 1995). As the latter fit value is dependent on the sample size, a value beyond the recommended thresholds can be considered acceptable (Wheaton 1987).

Construct	Item	MV/Std.	FL	KMO	ItTC	α	CR	λ
Corporate Reputation (with parcels)	CO	4.9/1.2	.759	.878	.718	.908	.909	.776
	GE	4.4/1.1	.840		.792			.813
	RFSC	4.5/1.2	.831		.782			.837
	SER	4.0/1.2	.788		.742			.777
	PSQ	4.7/1.2	.868		.816			.880
Retail Store Equity	RSE1	5.0/1.4	.776	.717	.634	.754	.760	.752
	RSE2	5.8/1.3	.543		.517			.555
	RSE3	4.8/1.4	.812		.603			.809
	RSE4[a]	3.8/1.7	.480		-			-
Store Loyalty	SL1	5.4/1.7	.758	.721	.732	.891	.861	.753
	SL2	4.1/1.9	.806		.838			.795
	SL3	4.5/1.8	.895		.801			.908
Corporate Communication	CC1	5.0/1.5	.776	.729	.695	.845	.847	.764
	CC2	4.4/1.7	.822		.725			.807
	CC3	4.7/1.6	.818		.723			.841
Store Attribute Perceptions	SAP1	5.1/1.3	.755	.863	.688	.856	.859	.758
	SAP2	5.2/1.3	.650		.597			.661
	SAP3	4.7/1.4	.741		.672			.752
	SAP4	4.9/1.3	.809		.730			.795
	SAP5	5.2/1.3	.737		.671			.731
Confirmatory model fit: CFI .964; TLI .956; RMSEA .054; SRMR .030; $\chi^2(142) = 2{,}456.873$.								

Notes: CO = Customer Orientation, GE = Good Employer, RFSC = Reliable and Financially Strong Company, SER = Social and Environmental Responsibility, PSQ = Product and Service Quality; MV/Std. = Mean values and standard deviations, FL = Factor loading (exploratory factor analysis), KMO = Kaiser-Meyer-Olkin criterion (≥ .5), ItTC = Item-to-Total Correlation (≥ .5), α = Cronbach's alpha (≥ .7), CR = Composite reliability (≥ .6), λ = Standardized factor loadings (confirmatory factor analysis) (≥ .5).

[a] Item deleted because of a low Item-to-Total Correlation.

Table B–6: Reliability and validity of measurements

Source: Own creation.

After testing the corporate reputation scale separately, we tested all involved measurement scales of the overall measurement model, including the new five-item corporate reputation scale, for reliability and validity (see Table B–6 for

reliability and validity as well as Table B–7 for discriminant validity). All values are satisfactory, except a small item-to-total correlation for the uniqueness item (retail store equity), and we excluded this item from further analysis. The fit values for the overall confirmatory model were satisfactory (CFI .964; TLI .956; RMSEA .054; SRMR .030; $\chi^2(142) = 2{,}456.873$).

Constructs	AVE	CR	RSE	SL	CC
Corporate Reputation (CR)	.667	-			
Retail Store Equity (RSE)	.523	*.381*	-		
Store Loyalty (SL)	.676	*.468*	*.417*	-	
Corporate Communication (CC)	.650	*.534*	*.305*	*.425*	-
Store Attribute Perceptions (SAP)	.550	*.532*	*.590*[a]	*.524*	*.396*
Confirmatory model fit: CFI .964; TLI .956; RMSEA .054; SRMR .030; $\chi^2(142) = 2{,}456.873$.					
Model comparison with the confirmatory model that has fixed correlation: RSE with SAP: CFI .945; TLI .934; RMSEA .066; SRMR .035; $\chi^2(143) = 3{,}653.916$; $\Delta\chi^2(1) = 1{,}197.043$.					

Notes: AVE = average variance extracted (≥ .5); values in italics represent squared correlations between constructs.

[a] For situations in which the criterion of Fornell and Larcker (1981) was violated, we also checked the discriminant validity using a chi-square difference test by following the approach of Anderson and Gerbing (1988). This procedure yielded satisfactory results because the nested model (the nested model is the more restrictive model with more degrees of freedom due to successively fixed correlations at value one) fits significantly more poorly ($p < .001$) than the comparison model. Thus, discriminant validity is assured.

Table B–7: Discriminant validity

Source: Own creation.

We handled common-method bias a priori by employing an appropriate questionnaire design, including appropriate question order, and a posteriori by calculating a single-factor test using confirmatory factor analysis (Podsakoff et al. 2003). The model with all items loading on a single factor (CFI .773; TLI .744; RMSEA .131; SRMR .072; $\chi^2(152) = 14{,}663.022$) showed significantly worsened fit values in comparison to our model ($\Delta\chi^2(10) = 12206.149$, $p < .000$). We further applied the marker variable technique (Lindell and Whitney 2001) following the latent variable approach of Williams, Hartman, and Cavazotte (2010). We used a variable named job (e.g., self-employed worker, civil servant, employee, laborer, or unemployed) because this variable is theoretically unrelated to the constructs of our model (similar to Rindfleisch, Burroughs, and Wong 2009). The results of the first phase (Table B–8) indicate that the correlations between the latent constructs are not biased through the marker variable (Method-U vs. Method-R).

Model	χ^2	df	CFI	TLI	RMSEA	SRMR
CFA	2,486.732	156	.964	.956	.052	.029
Baseline	2,565.578	161	.962	.956	.052	.037
Method-C	2,528.606	160	.963	.956	.051	.030
Method-U	2,449.628	142	.964	.952	.054	.029
Method-R	2,450.001	152	.964	.955	.052	.029
Chi-square differences of model comparison tests:						
ΔModels	$\Delta\chi^2$	Δdf	p			
Baseline with Method-C	36.972	1	***			
Method-C with Method-U	78.978	18	***			
Method-U with Method-R	.373	10	ns			
Notes: *** p < .001; ns = not significant.						

Table B–8: Results of model comparisons (phase I)

Source: Own creation.

The results of the second phase (Table B–9) show that the amount of method variance, associated with the measurement of the substantive latent constructs, is less than 1 percent (between .350 and .946 percent). Because the impact of method variance in the study of Williams, Hartman, and Cavazotte (2010) was above 12.5 percent, we found that the present results of below one percent could be decreased. The results of the third phase (Table B–10) indicate that marker-based method variance has a very low impact on construct correlations.

	Reliability baseline model	Decomposed reliability from method-U model		
Latent variable	Total reliability	Substantive reliability	Method reliability	% reliability marker variable
Store Loyalty	.861	.855	.006	.692
Retail Store Equity	.753	.748	.005	.664
Corporate Reputation	.909	.904	.005	.550
Store Attribute Perceptions	.858	.854	.003	.350
Corporate Communication	.846	.838	.008	.946

Table B–9: Results of the reliability decomposition (phase II)

Source: Own creation.

We tested whether structural coefficients change due to the presence of a marker variable. This approach was similar to the test for changes in correlation (Phase I). We calculated a baseline model constraining the effects of the marker variable to zero. A second model allowed the effects of the marker variable to be freely estimated. The chi-square and degrees of freedom of this model were compared with the chi-square and degrees of freedom of a third

model. The third model was calculated like the second model (effects of marker variable are present), fixing the structural effects between the substantive constructs of our model to those values of the baseline model. The results indicate that the structural coefficients are not affected by common-method bias ($\Delta\chi^2(6) = .194$, no significant difference). In summary, we concluded that common-method bias was not a major issue in our study.

Construct correlations	CFA	Baseline	Method-U	Method-S (.05)	Method-S (.01)
RSE with SL	.646	.646	.643	.643	.643
SAP with SL	.724	.724	.721	.722	.722
SAP with RSE	.768	.768	.766	.766	.766
CR with SL	.684	.684	.681	.681	.681
CR with RSE	.617	.617	.613	.613	.614
CR with SI	.730	.730	.726	.727	.727
CC with SL	.652	.652	.649	.649	.649
CC with RSE	.552	.552	.548	.549	.549
CC with SI	.629	.629	.625	.625	.625
CC with CR	.731	.731	.728	.728	.728
Job with RSE	.087	.000	.000	.000	.000
Job with CR	.088	.000	.000	.000	.000
Job with SI	.108	.000	.000	.000	.000
Job with CC	.115	.000	.000	.000	.000
Job with SL	.100	.000	.000	.000	.000

Notes: CR = Corporate Reputation, RSE = Retail Store Equity, SL = Store Loyalty, CC = Corporate Communication, SAP = Store Attribute Perceptions.

Table B–10: Results of the sensitivity analyses (phase III)

Source: Own creation.

As the data have a hierarchical structure (consumers are nested within the 30 stores), we tested for the requirements of multi-level modeling (Wagner et al. 2006) and found small intra-class correlations for all items (.034). As the variance of our dependent variable was not significant between the stores, there is no significant variation in consumer perceptions between stores. Therefore, we did not test the hypotheses with multi-level modeling, as no additional explanation of variance can be given.

Prior to testing the hypotheses, we calculated three rival models (see Table B–11). In consideration of schema theoretical reasoning and schema activation (Malle and Horowitz 1995), retail store equity and corporate reputation may have a unidirectional relationship. However, applying corporate reputation as an antecedent of retail store equity and treating retail store equity as a mediator

yielded significantly poorer fit values in comparison with those of the proposed model (CFI .937; TLI .926; RMSEA .058; SRMR .046; $\chi^2(226) = 4{,}445.446$; $\Delta\chi^2(2) = 860.544$, $p < .001$). In addition, treating corporate reputation as a mediator and applying retail store equity as an antecedent of corporate reputation significantly and negatively affected the fit values (CFI .944; TLI .934; RMSEA .054; SRMR .034; $\chi^2(226) = 3{,}947.387$; $\Delta\chi^2(2) = 362.485$, $p < .001$). We further calculated a nested model without any effects between retail store equity and corporate reputation and therefore analyzed the model without mediating effects and thus, only included the two direct paths to store loyalty. The fit of this third rival model was also significantly poorer than that of our hypothesized proposed model (CFI .936; TLI .925; RMSEA .058; SRMR .048; $\chi^2(227) = 4{,}508.744$; $\Delta\chi^2(3) = 923.842$, $p < .001$). These results therefore support the proposed theoretical model.

N = 5,600	**Rival Model 1**		**Rival Model 2**		**Rival Model 3**		**Proposed Model**	
Effects	Structural coefficients	p	Structural coefficients	p	Structural coefficients	p	Structural coefficients	p
CR → RSE	.142	***	-	-	-	-	.274	***
RSE → CR	-	-	.357	***	-	-	.635	***
CR → SL	.359	***	.339	***	.473	***	.369	***
RSE → SL	.358	***	.358	***	.461	***	.338	***
CC → CR	.787	***	.552	***	.790	***	.375	***
SAP → RSE	.703	***	.827	***	.801	***	.585	***
Covariates:								
Gender	.012	ns	.012	ns	.012	ns	.012	ns
Age	-.015	ns	-.014	ns	-.015	ns	-.015	ns
DIY abilities	-.029	**	-.028	**	-.029	**	-.028	**
Store familiarity	.387	***	.383	***	.386	***	.379	***
Competitive intensity	.004	ns	.003	ns	.003	ns	.003	ns
R^2 Store loyalty	.696	***	.703	***	.695	***	.706	***
Total effects of RSE on SL	.358	***	.479	***	.361	***	.692	***
Total effects of CR on SL	.410	***	.339	***	.373	***	.559	***
Structural model fits:								
Rival model 1: CFI .937; TLI .926; RMSEA .058; SRMR .046; $\chi^2(226) = 4{,}445.446$; $\Delta\chi^2(2) = 860.544$.								
Rival model 2: CFI .944; TLI .934; RMSEA .054; SRMR .034; $\chi^2(226) = 3{,}947.387$; $\Delta\chi^2(2) = 362.485$.								
Rival model 3: CFI .936; TLI .925; RMSEA .058; SRMR .048; $\chi^2(227) = 4{,}508.744$; $\Delta\chi^2(3) = 923.842$.								
Proposed model: CFI .950; TLI .940; RMSEA .052; SRMR .030; $\chi^2(224) = 3{,}584.902$.								

Notes: CR = Corporate Reputation, RSE = Retail Store Equity, SL = Store Loyalty, CC = Corporate Communication, SAP = Store Attribute Perceptions; *** p < .001, ** p < .01, ns = not significant; standardized coefficients are shown.

Table B–11: Results of the rival models and hypotheses testing

Source: Own creation.

To test the hypotheses, we applied non-recursive structural equation modeling (SEM) using Mplus and including the previously addressed instrumental variables as well as a required disturbance correlation between the two constructs that were assumed to have a reciprocal relationship (Kline 2011; Frone, Russell, and Cooper 1994). A test of exogeneity of the instrumental variables (Frone, Russell, and Cooper 1994; Antonakis et al. 2010) revealed that perceptions of store attributes are exogenous and that corporate communication may be endogenous (Hausman 1978). However, the structure of the path estimates remained the same, thus still supporting our hypotheses (see Appendix 1 for details). The fit values of the proposed model were all satisfactory (CFI .950; TLI .940; RMSEA .052; SRMR .030; $\chi^2(224) = 3{,}584.902$).

4.1.4 Results and limitations

With regard to the assumption of reciprocity, the effect of corporate reputation on retail store equity is positive and significant ($\beta = .274$, $p < .001$), and the effect of retail store equity on corporate reputation is also positive and significant ($\beta = .635$, $p < .001$). Thus, H1 is supported (see Table B–11). The results also support H2, which states that retail store equity has a stronger positive influence on store loyalty than corporate reputation. Although the effects of corporate reputation ($\beta = .369$, $p < .001$) and retail store equity ($\beta = .338$, $p < .001$) on store loyalty are equally positive and significant, the total sum of effects that influence store loyalty is greater for retail store equity ($\beta = .692$, $p < .001$) than for corporate reputation ($\beta = .559$, $p < .001$). We tested whether these effects differ significantly by constraining the respective effects to be estimated equally and calculating a chi-square difference test. The test showed that retail store equity has the strongest overall effect on store loyalty ($\Delta\chi^2(2) = 69.112$, $p < .001$). Thus, H2 is supported. With respect to the covariates, DIY ability ($p < .01$) has a significant negative effect on store loyalty, whereas store familiarity ($p < .001$) has a significant positive effect.

We must mention two crucial limitations of this cross-sectional study. First, because the data refer to only one retailer and one retail sector, the generalization of the results may be limited. However, an analysis of reciprocity that is based on 30 locations provides a certain degree of stability, especially when it includes perception differences in store brand equities in local markets. Se-

cond, an analysis of reciprocal effects in cross-sectional SEM might be inappropriate in terms of equilibrium and stationarity (Kaplan, Harik, and Hotchkiss 2001), i.e., the values of the estimates regarding the effects of the reciprocal relationship between the two constructs are not dependent on any time point of the data collection, and the "structural equation for a variable is not different at the two points of measurement" (Kenny 1975, p. 890). Thus, there are advantages in using a panel design to analyze reciprocal effects (Kline 2011, p. 109).

4.2. Study 2: Longitudinal Study

4.2.1 Aims and sample design

To address the shortcomings of the cross-sectional study, we conducted a longitudinal study, specifically a cross-lagged analysis, to test for reciprocity (H1) and to determine for whether retail store equity has a stronger effect than corporate reputation on store loyalty (H2). Surveying the same respondents at three points in time is a more suitable method of testing reciprocal relationships (Menard 2002) compared with a cross-sectional analysis. To make generalizations regarding the reciprocal relationship of corporate reputation and retail store equity, we chose two other retail sectors (fashion and grocery). We also expanded the consumer evaluations by including the associations of several chain store retailers for each retail sector but analyzing data on only one retailer for each sector.

To develop the two samples, we used quota sampling (national distribution of population according to age and gender) for 200-230 consumers per retail sector. The sampling was conducted in three waves in one middle-sized city over a period of eight months using a standardized questionnaire and face-to-face interviews at the respondents' homes. All trained interviewers had to recruit the same number of participants across genders and age groups for both the fashion and grocery samples (Patterson and Smith 2003) to reduce the possible selection biases of the interviewers. We used a gift coupon lottery as incentive for participation, following Ganesh et al. (2010). Each respondent was first asked to list the local fashion or grocery retailers he or she knows. Respondents were then instructed to name three retailers from which they frequently purchase either apparel or groceries. In the first wave, we randomly

chose one of the three mentioned retailers for the respondents to evaluate in all the subsequent waves. We included the respondents who participated in all three waves in the analysis; 82.9 percent of the fashion sample respondents and 84.6 percent of the grocery sample respondents completed all the data collection waves. This procedure resulted in a total of 609 observations (203 respondents per wave) for the fashion sample and a total of 627 observations (209 respondents per wave) for the grocery sector. Using the aforementioned procedure to identify outliers (study one), we found no striking cases in either sample. With respect to the intended quotas (see Table B–12), the under-25 age group is slightly overrepresented in our two samples, whereas the over-50 age group is slightly underrepresented. Overall, thirty fashion retailers with different fashion orientations and eleven grocery retailers with different retail formats were assessed for their respective samples; approximately half of the responses were related to diversified retailers and half to non-diversified retailers in each sample.

	Realized quota sample			**Planned quota sample**		
Age groups	Male %	Female %	Total %	Male %	Female %	Total %
			Fashion sector (N = 203)			
Age 15 to 24	11.3	9.9	21.2	6.9	6.6	13.5
Age 25 to 49	23.6	19.2	42.8	21.5	20.7	42.2
Age 50 to 64	8.9	8.4	17.3	10.6	10.7	21.3
Age over 64	5.4	13.3	18.7	9.6	13.4	23.0
Total	49.2	50.8	100.0	48.6	51.4	100.0
			Grocery sector (N = 209)			
Age 15 to 24	12.3	10.1	22.4	6.9	6.6	13.5
Age 25 to 49	23.1	20.1	43.2	21.5	20.7	42.2
Age 50 to 64	7.2	8.1	15.3	10.6	10.7	21.3
Age over 64	6.2	12.9	19.1	9.6	13.4	23.0
Total	48.8	51.2	100.0	48.6	51.4	100.0

Table B–12: Sample characteristics

Source: Own creation.

Tests for normality found that the fashion data are normally distributed. For the grocery data, however, we found one variable that shows only a mediocre value for kurtosis at one time point (the first item of store loyalty at time point one). Overall, we concluded that both data samples could be treated as normally distributed.

4.2.2 Measurement and method

We used the same measurements and scales that were used in the first study to measure corporate reputation, retail store equity, and store loyalty. As in the first study, we began by testing the corporate reputation dimensions for both the fashion and grocery samples and again used item parceling to reduce complexity in this longitudinal design. The values for reliability and validity were satisfactory for both the fashion and grocery sectors (see Table B–13). With regard to discriminant validity, we separately tested each time point with the corresponding five corporate reputation dimensions for each of the samples (see Table B–14). In situations in which the Fornell and Larcker criterion (1981) was violated, we calculated a chi-square difference test that was similar to the procedure used in the first study. In sum, we calculated five difference tests, all of which indicated that the constructs in all three waves are discriminating for both samples.

Following these initial tests, for the corporate reputation dimensions, we determined the reliability and validity of the measurements of the two overall models (corporate reputation with item parcels, retail store equity, and store loyalty; see Table B–15) for both the fashion and grocery samples. The uniqueness item of the retail store equity construct had to be excluded from the analysis in both samples due to a low item-to-total correlation. All other values show satisfactory values, except that the AVE value for store loyalty at time point one in the grocery sector was below .5. We chose to retain this construct in the model for two reasons. First, the chi-square test detected that a model without this construct yielded a significantly poorer fit than the model with the construct (CFI .944; TLI .930; RMSEA .065; SRMR .060; $\chi^2(350) = 654.916$, $\Delta\chi^2(76) = 99.157$, $p < .05$). Second, this choice enabled us to compare the results of the fashion and grocery samples with regard to the effects on loyalty.

Item	Time point 1							Time point 2							Time point 3						
	MV/Std.	FL	KMO	ItTC	α	CR	λ	MV/Std.	FL	KMO	ItTC	α	CR	λ	MV/Std.	FL	KMO	ItTC	α	CR	λ
Fashion sector																					
CR1	5.8/1.1	.884		.853			.891	5.8/1.1	.871		.837			.874	5.7/1.1	.881		.844			.888
CR2	5.6/1.3	.976	.741	.917	.939	.944	.965	5.7/1.2	.960	.749	.900	.933	.937	.951	5.7/1.3	.971	.738	.905	.931	.936	.962
CR3	5.6/1.3	.892		.862			.901	5.6/1.2	.894		.856			.903	5.6/1.2	.869		.838			.877
CR4	5.1/1.3	.885		.828			.890	5.2/1.2	.912		.857			.915	5.1/1.2	.900		.832			.889
CR5	5.1/1.2	.959	.729	.879	.913	.918	.926	5.2/1.2	.932	.754	.873	.925	.927	.918	5.2/1.2	.892	.752	.827	.908	.907	.868
CR6	5.2/1.3	.810		.776			.850	5.3/1.2	.850		.814			.864	5.3/1.2	.836		.789			.871
CR7	5.2/1.4	.790		.742			.860	5.3/1.3	.787		.752			.818	5.3/1.3	.804		.762			.860
CR8	5.3/1.3	.984	.690	.862	.887	.892	.909	5.5/1.2	.941	.729	.855	.903	.907	.920	5.4/1.2	.915	.741	.837	.902	.904	.882
CR9	5.2/1.3	.786		.738			.800	5.4/1.2	.892		.823			.893	5.1/1.2	.892		.822			.872
CR10	4.4/1.3	.740		.680			.823	4.7/1.3	.764		.705			.826	4.7/1.3	.760		.705			.815
CR11	4.3/1.3	.911	.714	.796	.855	.856	.856	4.4/1.4	.966	.695	.836	.866	.872	.912	4.6/1.3	.990	.678	.853	.870	.880	.924
CR12	3.9/1.6	.815		.736			.784	4.0/1.6	.781		.727			.782	4.2/1.6	.774		.726			.799
CR13	5.2/1.3	.776		.682			.834	5.3/1.2	.763		.651			.758	5.2/1.2	.837		.742			.856
CR14	5.4/1.3	.881	.703	.740	.827	.827	.815	5.4/1.2	.839	.700	.694	.802	.805	.815	5.3/1.2	.835	.731	.740	.855	.855	.801
CR15	5.5/1.3	.701		.634			.706	5.5/1.3	.681		.603			.715	5.4/1.3	.776		.703			.788
Grocery sector																					
CR1	5.6/1.2	.819		.783			.827	5.6/1.1	.791		.752			.799	5.6/1.2	.770		.721			.761
CR2	5.3/1.3	.951	.735	.873	.914	.919	.940	5.3/1.2	.923	.735	.844	.902	.909	.916	5.3/1.3	.900	.730	.808	.882	.885	.880
CR3	5.3/1.3	.883		.830			.890	5.3/1.2	.893		.826			.895	5.3/1.2	.865		.787			.890
CR4	4.8/1.4	.923		.871			.926	4.7/1.3	.895		.855			.905	4.9/1.2	.880		.824			.908
CR5	4.7/1.4	.956	.739	.893	.928	.933	.949	4.8/1.3	.953	.756	.895	.934	.936	.936	4.9/1.3	.915	.753	.846	.912	.912	.883
CR6	4.8/1.3	.825		.799			.835	4.8/1.3	.881		.844			.890	4.9/1.2	.848		.801			.850
CR7	5.1/1.3	.741		.699			.781	5.0/1.3	.803		.754			.823	5.1/1.2	.687		.631			.730
CR8	5.2/1.3	.991	.674	.849	.871	.881	.937	5.2/1.2	.944	.724	.844	.892	.895	.920	5.2/1.2	.865	.705	.746	.839	.845	.854
CR9	5.2/1.2	.779		.722			.813	5.1/1.2	.826		.768			.837	5.2/1.2	.846		.733			.824
CR10	4.5/1.3	.680		.597			.707	4.6/1.3	.712		.626			.775	4.6/1.3	.764		.666			.810
CR11	4.4/1.3	.820	.701	.687	.796	.804	.807	4.4/1.3	.812	.711	.691	.810	.810	.778	4.5/1.3	.853	.712	.722	.819	.820	.811
CR12	3.6/1.6	.776		.660			.765	3.8/1.5	.784		.672			.751	4.0/1.5	.732		.650			.726
CR13	5.2/1.2	.493		.447			.574	5.3/1.1	.618		.567			.649	5.2/1.2	.644		.557			.707
CR14	5.0/1.4	.838	.634	.668	.759	.789	.801	5.1/1.3	.850	.680	.723	.817	.833	.846	5.0/1.3	.779	.690	.637	.773	.775	.737
CR15	5.2/1.3	.833		.672			.824	5.2/1.2	.859		.729			.845	5.2/1.2	.768		.633			.749

Notes: MV/Std. = Mean values and standard deviations, FL = Factor loadings (exploratory factor analysis), KMO = Kaiser-Meyer-Olkin criterion (≥ .5), ItTC = Item-to-Total Correlation (≥ .3), α = Cronbach's alpha (≥ .7), CR = Composite reliability (≥ .6), λ = Standardized factor loadings (confirmatory factor analysis) (≥ .5).

Table B–13: Reliability and validity of corporate reputation

Source: Own creation.

Constructs	AVE	CO (1)	GE (1)	RFSC (1)	SER (1)	CO (2)	GE (2)	RFSC (2)	SER (2)	CO (3)	GE (3)	RFSC (3)	SER (3)
						Fashion sector							
CO (1)	.850	-											
GE (1)	.788	*.454*	-										
RFSC (1)	.734	*.309*	*.587*	-									
SER (1)	.666	*.230*	*.523*	*.430*	-								
PSQ (1)	.615	*.456*	*.599*	*.696*[a]	*.563*								
Confirmatory model fit: CFI .914; TLI .887; RMSEA .119; SRMR .060; $\chi^2(80) = 307.871$.													
Model comparison with the confirmatory model that have fixed correlations:													
Correlation PSQ with RFSC fixed: CFI .898; TLI .868; RMSEA .129, SRMR .063; $\chi^2(81) = 353.867$; $\Delta\chi^2(1) = 45.996$.													
CO (2)	.833					-							
GE (2)	.809					*.421*	-						
RFSC (2)	.765					*.206*	*.465*	-					
SER (2)	.696					*.187*	*.442*	*.412*	-				
PSQ (2)	.580					*.386*	*.661*[a]	*.590*[a]	*.576*				
Confirmatory model fit: CFI .924; TLI .901; RMSEA .111; SRMR .062; $\chi^2(80) = 278.965$.													
Model comparisons with the confirmatory models that have fixed correlations:													
PSQ with GE: CFI .907; TLI .880; RMSEA .122, SRMR .067; $\chi^2(81) = 325.153$; $\Delta\chi^2(1) = 46.188$.													
PSQ with RFSC: CFI .901; TLI .872; RMSEA .126, SRMR .073; $\chi^2(81) = 341.212$; $\Delta\chi^2(1) = 62.247$.													
CO (3)	.831									-			
GE (3)	.766									*.408*	-		
RFSC (3)	.759									*.235*	*.604*	-	
SER (3)	.712									*.173*	*.376*	*.379*	-
PSQ (3)	.664									*.410*	*.614*	*.637*	*.471*
Confirmatory model fit: CFI .938; TLI .919; RMSEA .100; SRMR .057; $\chi^2(80) = 241.171$.													
						Grocery sector							
CO (1)	.792	-											
GE (1)	.823	*.343*	-										
RFSC (1)	.713	*.279*	*.271*	-									
SER (1)	.581	*.332*	*.412*	*.245*	-								
PSQ (1)	.564	*.490*	*.398*	*.259*	*.388*								
Confirmatory model fit: CFI .921; TLI .897; RMSEA .103; SRMR .074; $\chi^2(80) = 257.870$.													

(Table to be continued)

Table B–14 (continued)

CO (2)	.768	-							
GE (2)	.830	*.487*	-						
RFSC (2)	.741	*.346*	*.386*	-					
SER (2)	.588	*.342*	*.438*	*.281*	-				
PSQ (2)	.631	*.558*	*.445*	*.317*	*.342*				
Confirmatory model fit: CFI .975; TLI .967; RMSEA .058; SRMR .049; $\chi^2(80) = 136.256$.									
CO (3)	.721					-			
GE (3)	.775					*.452*	-		
RFSC (3)	.645					*.442*	*.483*	-	
SER (3)	.603					*.449*	*.585*	*.433*	-
PSQ (3)	.536					*.681*[a]	*.469*	*.483*	*.624*[a]
Confirmatory model fit: CFI .959; TLI .947; RMSEA .071; SRMR .041; $\chi^2(80) = 163.103$.									
Model comparisons with the confirmatory models that have fixed correlations:									
PSQ with CO: CFI .945; TLI .928; RMSEA .082; SRMR .047; $\chi^2(81) = 194.420$; $\Delta\chi^2(1) = 31.317$.									
PSQ with SER: CFI .943; TLI .926; RMSEA .083; SRMR .047; $\chi^2(81) = 196.956$; $\Delta\chi^2(1) = 33.853$.									

Notes: CO = Customer Orientation, GE = Good Employer, RFSC = Reliable and Financially Strong Company, SER = Social and Environmental Responsibility, PSQ = Product and Service Quality; (1) = time point one, (2) = time point two, (3) = time point three; AVE = average variance extracted (≥ .5); values in italics represent squared correlations between constructs.

[a] For situations in which the criterion of Fornell and Larcker (1981) was violated, we also checked the discriminant validity using a chi-square difference test by following the approach of Anderson and Gerbing (1988). This procedure yielded satisfactory results because the nested model (the nested model is the more restrictive model with more degrees of freedom due to successively fixed correlations at value one) fits significantly more poorly ($p < .001$) than the comparison model. Thus, discriminant validity is assured.

Table B–14: Discriminant validity of corporate reputation

Source: Own creation.

		Time point 1							Time point 2							Time point 3						
	Item	MV/Std.	FL	KMO	ItTC	α	CR	λ	MV/Std.	FL	KMO	ItTC	α	CR	λ	MV/Std.	FL	KMO	ItTC	α	CR	λ
Fashion sector																						
CR_P	CO	5.7/1.2	.694	.844	.646	.890	.891	.694	5.7/1.1	.639	.857	.589	.875	.876	.679	5.7/1.1	.641	.847	.593	.876	.876	.663
	GE	5.1/1.1	.873		.812			.835	5.2/1.1	.869		.798			.830	5.2/1.1	.862		.792			.810
	RFSC	5.3/1.2	.811		.751			.839	5.4/1.2	.763		.704			.794	5.3/1.1	.806		.738			.813
	SER	4.2/1.2	.704		.658			.690	4.4/1.3	.707		.654			.680	4.5/1.3	.683		.635			.669
	PSQ	5.4/1.1	.861		.801			.874	5.4/1.0	.870		.800			.864	5.3/1.1	.863		.795			.887
RSE	RSE1	5.6/1.3	.984	.750	.831	.864	.880	.658	5.8/1.2	.865	.782	.767	.849	.849	.704	5.6/1.1	.849	.788	.724	.821	.827	.651
	RSE2	5.9/1.1	.616		.625			.971	5.9/1.1	.708		.681			.882	5.8/1.1	.622		.604			.901
	RSE3	5.6/1.2	.877		.779			.857	5.7/1.1	.848		.708			.823	5.6/1.2	.865		.706			.785
	RSE4[a]	4.8/1.6	.630		-			-	5.0/1.6	.622		-			-	4.9/1.5	.696		-			-
RSE	SL1	6.3/1.0	.677	.652	.563	.741	.768	.674	6.3/.90	.724	.714	.649	.818	.841	.722	6.2/.81	.709	.704	.628	.804	.828	.700
	SL2	5.2/1.6	.600		.538			.674	5.5/1.4	.795		.704			.806	5.5/1.3	.753		.668			.776
	SL3	5.7/1.2	.917		.681			.860	5.8/1.1	.856		.736			.851	5.8/1.1	.864		.721			.855
Confirmatory model fit: CFI .946; TLI .934; RMSEA .065; SRMR .059; $\chi^2(426) = 796.540$.																						
Grocery sector																						
CR_P	CO	5.4/1.2	.758	.864	.685	.855	.854	.808	5.4/1.1	.799	.864	.724	.864	.866	.812	5.4/1.1	.777	.855	.716	.883	.881	.812
	GE	4.8/1.3	.783		.710			.751	4.8/1.2	.837		.761			.797	4.9/1.1	.797		.741			.779
	RFSC	5.2/1.1	.692		.633			.668	5.1/1.1	.700		.646			.713	5.1/1.1	.749		.696			.720
	SER	4.2/1.2	.676		.621			.659	4.2/1.2	.651		.604			.656	4.4/1.2	.768		.712			.746
	PSQ	5.1/1.0	.779		.705			.782	5.2/1.0	.767		.700			.777	5.2/1.0	.795		.736			.809
RSE	RSE1	5.5/1.2	.871	.758	.669	.797	.806	.818	5.6/1.1	.847	.746	.759	.827	.836	.886	5.5/1.1	.816	.746	.721	.818	.825	.846
	RSE2	4.2/1.7	.597		.596			.694	5.9/1.1	.640		.624			.687	5.9/1.1	.633		.626			.691
	RSE3	5.2/1.3	.855		.718			.829	5.3/1.2	.872		.683			.770	5.3/1.3	.876		.674			.797
	RSE4[a]	5.9/1.1	.642		-			-	4.5/1.6	.593		-			-	4.5/1.5	.636		-			-
SL	SL1	6.5/1.0	.571	.661	.461	.677	.698	.543	6.4/.90	.547	.648	.457	.699	.723	.587	6.3/.90	.585	.667	.501	.739	.766	.532
	SL2	5.4/1.6	.722		.541			.631	5.5/1.4	.653		.542			.671	5.6/1.3	.718		.596			.751
	SL3	5.6/1.4	.664		.519			.770	5.7/1.3	.826		.607			.765	5.7/1.1	.820		.643			.819
Confirmatory model fit: CFI .944; TLI .931; RMSEA .061; SRMR .061; $\chi^2(426) = 754.073$.																						

Notes: CR_P = Corporate Reputation with Parcels, RSE = Retail Store Equity, SL = Store Loyalty, CO = Customer Orientation, GE = Good Employer, RFSC = Reliable and Financially Strong Company, SER = Social and Environmental Responsibility, PSQ = Product and Service Quality; (1) = time point one, (2) = time point two, (3) = time point three; MV/Std. = Mean values and standard deviations, FL = Factor loadings (exploratory factor analysis), KMO = Kaiser-Meyer-Olkin criterion (≥ .5), ItTC = Item-to-Total Correlation (≥ .3), α = Cronbach's alpha (≥ .7), CR = Composite reliability (≥ .6), AVE = Average variance extracted (≥ .5), λ = Standardized factor loadings (confirmatory factor analysis) (≥ .5).
[a] Item deleted because of low Item-to-Total Correlation.

Table B–15: Reliability and validity of measurements

Source: Own creation.

The tests of discriminant validity were conducted separately for the three corresponding constructs at each time point and for each sample. The results, including five calculated chi-square difference tests (see Table B–16), show that the constructs are discriminatory. Finally, the fit values for the two confirmatory models were satisfactory (CFI .946; TLI .934; RMSEA .065; SRMR .059; $\chi^2(426) = 796.540$ for the fashion sample; and CFI .944; TLI .931; RMSEA .061; SRMR .061; $\chi^2(426) = 754.073$ for the grocery sample).

Prior to testing the hypotheses, we determined whether the measurements are invariant over time (Raykov and Amemiya 2008). The analysis of measurement invariance is performed by applying confirmatory factor analysis. The use of this approach requires a sequence of successive tests in which each step is a requirement for the following step. The first step assures configural invariance by assessing the model fit of the baseline model in which the factor loadings and intercepts are freely estimated for each time point. Second, a factor loading invariant model is calculated. In this step, the factor loadings of each item are fixed across time points. The goodness-of-fit statistics for the second model are then compared with the corresponding values for the first model. We applied several differences-in-fit indices to determine the measurement invariance (e.g., chi-square difference tests and ΔCFI). The third step is designed to fix the intercepts of each item across all time points. When a good comparison between the factor loading invariant model and the third model is obtained, measurement invariance is approved. As full measurement invariance was not accomplished for both samples, partial invariance was ascertained (Byrne, Shavelson, and Muthén 1989). This determination was made by freeing several intercept and factor loading values (see Table B–17). The results indicate the good fit of all models and provide support for the proposition that partial measurement invariance holds for all constructs of both the fashion and grocery samples. The derived partial invariance models of both sectors are used in the subsequent analyses of hypotheses testing.

Constructs	AVE	CR (1)	RSE (1)	CR (2)	RSE (2)	CR (3)	RSE (3)
				Fashion sector			
CR (1)	.622	-					
RSE (1)	.714	*.638*[a]	-				
SL (1)	.532	*.486*	*.501*				
Confirmatory model fit: CFI .925; TLI .900; RMSEA .114; SRMR .060; $\chi^2(41) = 149.710$.							
Model comparison with the confirmatory model that has fixed correlation:							
RSE (1) with CR (1): CFI .837; TLI .786; RMSEA .167; SRMR .072; $\chi^2(42) = 279.488$; $\Delta\chi^2(1) = 129.778$.							
CR (2)	.589			-			
RSE (2)	.654			*.575*	-		
SL (2)	.649			*.421*	*.493*		
Confirmatory model fit: CFI .937; TLI .915; RMSEA .100; SRMR .060; $\chi^2(41) = 124.703$.							
CR (3)	.587					-	
RSE (3)	.617					*.743*[a]	-
SL (3)	.625					*.430*	*.507*
Confirmatory model fit: CFI .937; TLI .915; RMSEA .100; SRMR .048; $\chi^2(41) = 124.154$.							
Model comparison with the confirmatory model that has fixed correlation:							
RSE (3) with CR (3): CFI .906; TLI .877; RMSEA .121; SRMR .055; $\chi^2(42) = 165.893$; $\Delta\chi^2(1) = 41.739$.							
				Grocery sector			
CR (1)	.540	-					
RSE (1)	.585	*.688*[a]	-				
SL (1)	.461	*.473*[a]	*.416*				
Confirmatory model fit: CFI .945; TLI .926; RMSEA .081; SRMR .050; $\chi^2(41) = 96.815$.							
Model comparisons with the confirmatory models that have fixed correlations:							
RSE (1) with CR (1): CFI .910; TLI .882; RMSEA .102; SRMR .054; $\chi^2(42) = 133.465$; $\Delta\chi^2(1) = 36.650$.							
SL (1) with CR (1): CFI .906; TLI .876; RMSEA .105; SRMR .062; $\chi^2(42) = 138.119$; $\Delta\chi^2(1) = 41.304$.							
CR (2)	.564			-			
RSE (2)	.632			*.558*	-		
SL (2)	.499			*.491*	*.408*		
Confirmatory model fit: CFI .942; TLI .922; RMSEA .086; SRMR .050; $\chi^2(41) = 103.999$.							
CR (3)	.597					-	
RSE (3)	.612					*.635*[a]	-
SL (3)	.544					*.483*	*.465*
Confirmatory model fit: CFI .935; TLI .913; RMSEA .095; SRMR .057; $\chi^2(41) = 117.706$.							
Model comparison with the confirmatory model that has fixed correlation:							
RSE (3) with CR (3): CFI .887; TLI .853; RMSEA .123; SRMR .066; $\chi^2(42) = 175.755$; $\Delta\chi^2(1) = 58.049$.							

Notes: CR = Corporate Reputation, RSE = Retail Store Equity, SL = Store Loyalty; (1) = time point one, (2) = time point two, (3) = time point three; AVE = average variance extracted (≥ .5); values in italics represent squared correlations between constructs.

[a] For situations in which the criterion of Fornell and Larcker (1981) was violated, we also checked the discriminant validity using a chi-square difference test by following the approach of Anderson and Gerbing (1988). This procedure yielded satisfactory results because the nested model (the nested model is the more restrictive model with more degrees of freedom due to successively fixed correlations at value one) fits significantly more poorly ($p < .001$) than the comparison model. Thus, discriminant validity is assured.

Table B–16: Discriminant validity

Source: Own creation.

Model	χ^2/df (p-value)	χ^2-Difference (p-value)	CFI (ΔCFI)	TLI (ΔTLI)	RMSEA (ΔRMSEA)
Fashion sector					
Model 1: Configural invariance	796.540/426 (.000)	-	.946	.934 (-)	.059 (-)
Model 2: Factor loading invariance	814.261/442 (.000)	17.721 (.340)	.946 (.000)	.936 (.002)	.064 (.006)
Model 3: Factor loading and intercept invariance	878.169/458 (.000)	63.908 (.000)	.939 (.007)	.930 (.006)	.073 (.009)
Model 4: Partial factor loading and partial intercept invariance[a]	827.604/454 (.000)	13.343 (.345)	.946 (.000)	.937 (.001)	.064 (.000)
Grocery sector					
Model 1: Configural invariance	754.073/426 (.000)	-	.944	.931 (-)	.061 (-)
Model 2: Factor loading invariance	782.998/442 (.000)	28.925 (.024)	.942 (.002)	.931 (.000)	.061 (.000)
Model 3: Partial factor loading invariance[b]	775.400/440 (.000)	21.327 (.094)	.943 (.001)	.932 (.001)	.060 (.001)
Model 4: Partial factor loading and intercept invariance	957.832/456 (.000)	182.432 (.000)	.915 (.028)	.901 (.031)	.073 (.013)
Model 5: Partial factor loading and partial intercept invariance[c]	795.225/453 (.000)	19.825 (.100)	.942 (.001)	.932 (.000)	.060 (.000)

Notes: [a] Intercepts are freed for the following items: SER time point one, SER time point three, SL1 time point three, and SL2 time point one.
[b] Factor loadings are freed for the following items: SER time points one, two and three.
[c] Intercepts are freed for the following items: RSE2 time point one, SER time point three, SL1 time point one.

Table B–17: Measurement invariance

Source: Own creation.

To test the hypotheses, we applied a cross-lagged design (Finkel 1995) for SEM using Mplus for both samples. As a cross-lagged design includes the stability effects of each variable over time (e.g., the modeled path from the corporate reputation at time point one to the corporate reputation at time point two), we modeled the corresponding effects. A second characteristic of cross-lagged panel models is the use of disturbance correlations with respect to the indicators (Burkholder and Harlow 2003). Thus, we modeled disturbance cor-

relations of the same indicators across all time points. Third, as the same effects are said to be equal over time (Finkel 1995, p. 29), we included corresponding constraints (e.g., that the effect of corporate reputation at time point one on retail store equity at time point two and the respective effect from time point two on time point three are estimated equally). Fourth, we included disturbance correlations between all constructs at time point two and integrated them at time point three (Finkel 1995, p. 28). The same disturbance correlations between time points two and three are constrained and thus estimated equally (Finkel 1995, p. 30); for example, the disturbance correlation between corporate reputation and retail store equity at time point two is equally estimated at time point three. All of the fit values of the cross-lagged structural model are satisfactory for both retail sectors (CFI .946; TLI .940; RMSEA .062; SRMR .067; $\chi^2(477) = 852.068$ for the fashion sector; and CFI .937; TLI .930; RMSEA .061; SRMR .074; $\chi^2(476) = 846.449$ for the grocery sector).

4.2.3 Results and limitations

With regard to the assumption of reciprocity, the effect of corporate reputation on retail store equity is positive and significant over time in both samples (fashion: $\beta_{1\text{-}2} = .202$, $p < .01$; $\beta_{2\text{-}3} = .218$, $p < .01$; grocery: $\beta_{1\text{-}2} = .143$, $p < .05$; $\beta_{2\text{-}3} = .152$, $p < .05$). The effect of retail store equity on corporate reputation is also positive and significant over time (fashion: $\beta_{1\text{-}2} = .103$, $p < .1$; $\beta_{2\text{-}3} = .100$, $p < .1$; grocery: $\beta_{1\text{-}2} = .092$, $p < .1$; $\beta_{2\text{-}3} = .096$, $p < .1$) (see Table B–18). Thus, the assumption of reciprocity between corporate reputation and retail store equity (H1) is supported. The results also provide support for H2, which proposes that retail store equity has a stronger positive effect on store loyalty than corporate reputation. Corporate reputation has no significant effect on store loyalty in either sample, whereas the effects of retail store equity are significant (fashion: $\beta_{1\text{-}2} = .127$, $p < .05$; $\beta_{2\text{-}3} = .122$, $p < .05$; grocery: $\beta_{1\text{-}2} = .241$, $p < .01$; $\beta_{2\text{-}3} = .282$, $p < .01$). Additionally, the sum of the direct and indirect effects on store loyalty is significant for retail store equity. This result is applicable to both the fashion and grocery samples.

Effects			Fashion sector (N = 609) Structural coefficients	p-value	Grocery sector (N = 627) Structural coefficients	p-value
CR (1)	→	RSE (2)	.202	**	.143	*
RSE (1)	→	CR (2)	.103	† (p = .059)	.092	† (p = .055)
CR (1)	→	SL (2)	.027	ns	.004	ns
RSE (1)	→	SL (2)	.127	*	.241	**
CR (1)	→	CR (2)	.782	***	.825	***
RSE (1)	→	RSE (2)	.651	***	.691	***
SL (1)	→	SL (2)	.787	***	.547	***
CR (2)	→	RSE (3)	.218	**	.152	*
RSE (2)	→	CR (3)	.100	† (p = .063)	.096	† (p = .057)
CR (2)	→	SL (3)	.028	ns	.004	ns
RSE (2)	→	SL (3)	.122	*	.282	**
CR (2)	→	CR (3)	.803	***	.856	***
RSE (2)	→	RSE (3)	.659	***	.748	***
SL (2)	→	SL (3)	.787	***	.648	***
R^2 SL (3)			.799	***	.699	***
Total effects of RSE (1) on SL (3)			.183	*	.350	***
Total effects of CR (1) on SL (3)			.068	ns	.034	ns

Structural model fits:
Fashion sector: CFI .946; TLI .940; RMSEA .062; SRMR .067; $\chi^2(477) = 852.068$.
Grocery sector: CFI .937; TLI .930; RMSEA .061; SRMR .074; $\chi^2(476) = 846.449$.

Notes: CR = Corporate Reputation, RSE = Retail Store Equity, SL = Store Loyalty; (1) = time point one, (2) = time point two, (3) = time point three; *** p < .001, ** p < .01, * p < .05, † p < .1, ns = not significant; standardized coefficients are shown.

Table B–18: Results of hypotheses testing

Source: Own creation.

One limitation of the longitudinal study relates to the minor effect of retail store equity on corporate reputation. This minor effect may be caused by the small sample size or the sampling distribution (with respect to age or gender). A replication of the study would allow the model to be analyzed using a larger sample size, and the inclusion of sample weights would address the topic of sampling distribution. The second limitation concerns methodology. Even if panel designs offer advantages over cross-sectional designs in analyzing reciprocal relationships, Kline (2011, p. 293) remarked that if a structural model is tested without an experimental design, one should “not make claims about verifying causality”.

4.3. Study 3: Experimental Study

4.3.1 Aims and sample design

Addressing the shortcomings of the first two studies, we conducted an experimental study using a 2 x 3 design (a real or fictional retailer with a corporate,

store, or control message). In the first setting, we used one fictional DIY retailer, and in the second setting, we used one real DIY retailer. We chose this approach to establish whether reciprocity exists in both fictional and real settings. Furthermore, the possible effects of shopping experience and brand knowledge are excluded in the fictional retailer setting to provide internal validity.

	Realized quota sample			Planned quota sample		
Age groups	Male %	Female %	Total %	Male %	Female %	Total %
Fictional Brand (N = 181)						
Age 15 to 29	8.3	2.8	11.0	8.4	2.6	11.0
Age 30 to 39	16.6	6.1	22.7	16.7	5.3	22.0
Age 40 to 49	20.4	6.1	26.5	21.3	6.7	28.0
Age 50 to 64	19.3	5.5	24.9	18.2	5.8	24.0
Age over 64	11.6	3.3	14.9	11.4	3.6	15.0
Total	76.2	23.8	100.0	76.0	24.0	100.0
Real Brand (N = 169)						
Age 15 to 29	10.1	3.5	13.6	8.4	2.6	11.0
Age 30 to 39	15.4	7.7	23.1	16.7	5.3	22.0
Age 40 to 49	21.9	6.5	28.4	21.3	6.7	28.0
Age 50 to 64	17.8	6.5	24.3	18.2	5.8	24.0
Age over 64	8.3	2.4	10.7	11.4	3.6	15.0
Total	73.4	26.6	100.0	76.0	24.0	100.0

Table B–19: Sample characteristics

Source: Own creation.

After pre-testing the manipulations with graduate students (N = 23), we conducted DIY-specific quota sampling according to age and gender as done in the first study. Each respondent was randomly chosen for either the real or fictional retailer setting and was asked to name all local DIY retailers with which he or she was familiar at the beginning of the questionnaire. To participate in the real retailer setting, the respondents had to be familiar with the real retailer that we chose for the experiment. This procedure resulted in 332 total respondents: 165 respondents for the fictional setting and 167 respondents for the real retailer setting. Altogether, the realized samples met the intended sampling (see Table B–19), except that the over-64 age group was underrepresented in the real retailer setting. With regard to the survey design, we considered visual design and the hierarchy of effects to counteract the possibility of common method bias.

4.3.2 Measurement and method

We used the same measurements and scale that were used in our two previous studies to measure corporate reputation, retail store equity, and store loyalty. Store loyalty was measured only for the real retailer sample, as the measurement of repurchase intentions is not applicable to the fictional retail setting. The measurements were tested for reliability and validity (see Table B–20). All values for corporate reputation and retail store equity were satisfactory for both the fictional and real samples, and the values for store loyalty were satisfactory for the real retailer sample.

Prior to participating in a face-to-face interview using the standardized questionnaire, each respondent listened to one cover story (a corporate, store, or control message) pertaining to a DIY retailer. All of the cover stories (which appeared in the form of newspaper cuttings) were structured similarly and contained corporate and store information pertaining to the (real or fictional) retailer. The neutral corporate information was provided through a statement regarding the site of the headquarters and the number of stores that belong to the corporation. The neutral store information was given by explaining the services and product categories that are offered in the stores. With the exception of the control group (who received the two neutral messages as described above), we further included positive manipulations for the corporation or the store, respectively. For the corporate manipulation, we positively activated the ‘customer orientation’ and ‘good employer’ dimensions (Walsh, Beatty, and Shiu 2009) by writing that a well-known national retail association named the corporation as the best DIY retailer in the country in 2010 because of its excellent customer orientation and outstanding leadership (compared with other leading competitors in the market). For the purpose of store manipulation, we positively activated the ‘favorability’ and ‘uniqueness’ characteristics of the store (Verhoef, Langerak, and Donkers 2007). We wrote that a well-known local chamber of commerce named the store as the best DIY store in 2010 because of its outstanding attractiveness and found the store to be outstanding compared with major competing stores. Thus, the manipulated stories differed in their activation of information at the corporate and store levels, whereas identical stories were provided for the fictional retailer setting (please see Appendix 2 for the presentation of cover stories).

Construct	Item	MV/Std.	FL	KMO	ItTC	α	MV/Std.	FL	KMO	ItTC	α
		Fictional Brand					Real Brand				
Corporate Reputation	CR1	4.4/1.3	.894		.835		4.8/1.3	.771		.731	
	CR2	4.4/1.3	.931	.746	.860	.914	4.5/1.2	.984	.692	.867	.890
	CR3	4.3/1.3	.828		.789		4.4/1.2	.818		.763	
	CR4	4.4/1.3	.896		.778		4.4/1.1	.866		.761	
	CR5	4.3/1.2	.876	.703	.767	.855	4.4/1.1	.972	.646	.811	.842
	CR6	4.5/1.4	.690		.647		4.6/1.1	.588		.563	
	CR7	4.8/1.6	.512		.476		4.4/1.3	.652		.601	
	CR8	4.4/1.4	.985	.613	.736	.770	4.5/1.2	.919	.682	.760	.824
	CR9	4.5/1.4	.748		.628		4.7/1.2	.797		.692	
	CR10	4.3/1.3	.591		.512		4.0/1.2	.720		.572	
	CR11	3.8/1.1	.753	.673	.614	.749	4.0/1.0	.748	.683	.591	.735
	CR12	2.9/1.4	.795		.625		2.6/1.3	.633		.528	
	CR13	4.3/1.2	.701		.641		4.8/1.0	.584		.508	
	CR14	4.1/1.4	.846	.710	.741	.840	4.4/1.2	.785	.672	.627	.755
	CR15	4.2/1.5	.851		.743		4.6/1.1	.776		.626	
Retail Store Equity	RSE1	3.8/1.4	.837		.698		4.9/1.2	.744		.579	
	RSE2	2.8/1.6	.637	.761	.562	.795	5.8/1.1	.528	.632	.389	.699
	RSE3	4.0/1.5	.747		.633		4.7/1.1	.693		.581	
	RSE4	3.3/1.5	.603		.539		3.6/1.5	.501		.399	
Store Loyalty	SL1						5.0/1.6	.646		.570	
	SL2	-	-	-	-	-	3.4/1.4	.698	.668	.596	.781
	SL3						4.0/1.2	.914		.719	

Notes: MV/Std. = Mean values and standard deviations, FL = Factor loadings (exploratory factor analysis), KMO = Kaiser-Meyer-Olkin criterion (≥ .5), ItTC = Item-to-Total Correlation (≥ .3), α = Cronbach's alpha (≥ .7).

Table B–20: Reliability and validity of measurements

Source: Own creation.

Prior to the manipulation checks and hypothesis testing, we calculated indices for all scales. In the manipulation checks, we analyzed the differences in mean values between the experimental groups (corporate and store messages) and the control group (neutral message) by comparing the corporate reputation index between the control message and corporate message groups and by comparing the retail store equity index between the control message and store message groups. All manipulation checks for the fictional and real retailer samples yielded significant differences and proved that the manipulations were successful (see Table B–21). We tested the hypotheses using regression analysis with SPSS.

Fictional Brand									
Message	Neutral (N = 35)		Corporate (N = 58)		Store (N = 72)		Mean Difference	p	Standard Error Difference
	MV	Std.	MV	Std.	MV	Std.			
Corporate Reputation	3.71	1.09	4.38	.700	-	-	-.677	**	.206
Retail Store Equity	2.96	.96	-	-	3.56	1.29	-.595	**	.223
Real Brand									
Message	Neutral (N = 28)		Corporate (N = 71)		Store (N = 68)		Mean Difference	p	Standard Error Difference
	MV	Std.	MV	Std.	MV	Std.			
Corporate Reputation	3.99	.84	4.56	.700	-	-	-.573	**	.162
Retail Store Equity	4.34	.81	-	-	4.71	.84	-.368	*	.184

Notes: MV = Mean values, Std. = Standard deviations; ** p < .01, * p < .05.

Table B–21: Manipulation checks

Source: Own creation.

4.3.3 Results and limitations

With regard to the first hypothesis, we chose the corporate message group to analyze the effect of corporate reputation on retail store equity in the first step. Second, we chose the store message group to examine the effect of retail store equity on corporate reputation (see Table B–22). Both effects are significant and positive for the fictional and real retailer samples (fictional retailer: $\beta_{CR \rightarrow RSE} = .669$, $p < .001$; $\beta_{RSE \rightarrow CR} = .510$, $p < .001$; and real retailer: $\beta_{CR \rightarrow RSE} = .674$, $p < .001$; $\beta_{RSE \rightarrow CR} = .572$, $p < .001$). Thus, the assumption of reciprocity between corporate reputation and retail store equity is supported (H1). Considering the effects on store loyalty for the real retailer sample, we tested the effect of corporate reputation on store loyalty using the corporate message group and analyzed the effect of retail store equity on store loyalty using the store message group. Corporate reputation and retail store equity positively affect store loyalty ($\beta_{CR \rightarrow SL} = .514$, $p < .001$; $\beta_{RSE \rightarrow SL} = .321$, $p < .01$). However, as retail store equity has a weaker effect on store loyalty than corporate reputation, the results do not support H2.

One limitation of this experimental study is its restricted external validity. However, by applying quota sampling (particularly a sector-specific sampling) rather than convenience sampling, we attempted to address external validity to a certain extent. The reciprocity of corporate reputation and retail store equity is supported, but we cannot confirm that the effect of retail store equity on store

loyalty is stronger than that of corporate reputation. The cause of the latter result requires further discussion and investigation.

Fictional Brand									
CR → RSE (N = 58)	B	Beta	t-value	p	RSE → CR (N = 72)	B	Beta	t-value	p
Constant	-.921		-1.351	ns	Constant	2.980		10.993	***
Corporate Reputation	1.035	.669	6.737	***	Retail Store Equity	.356	.510	4.966	***
R^2 = .448					R^2 = .260				
Real Brand									
CR → RSE (N = 71)					RSE → CR (N = 68)				
Constant	.891		1.641	ns	Constant	1.985		4.816	***
Corporate Reputation	.891	.674	7.570	***	Retail Store Equity	.488	.572	5.665	***
R^2 = .454					R^2 = .327				
CR → SL (N = 71)					RSE → SL (N = 68)				
Constant	.314		.393	ns	Constant	2.332		3.421	**
Corporate Reputation	.863	.514	4.976	***	Retail Store Equity	.393	.321	2.754	**
R^2 = .264					R^2 = .103				

Notes: CR = Corporate Reputation, RSE = Retail Store Equity, SL = Store Loyalty.
*** p < .001, ** p < .01, ns = not significant.

Table B–22: Results of hypotheses testing

Source: Own creation.

5. Discussion and Conclusions

This article examines the reciprocity between corporate reputation and retail store equity as well as their effects on store loyalty by conducting studies with cross-sectional, longitudinal, and experimental designs. This under-researched area is relevant because retailers are increasingly focusing on their corporate reputations and the positioning of their stores as strong brands and because they frequently must decide on actions such as the relative allocation of promotional investments across different levels (e.g., corporation, store, and store brands) to attract consumers. We found strong evidence that corporate reputation and retail store equity have a positive reciprocal relationship and that retail store equity has the greatest effect on store loyalty. Thus, we agree with the early conceptual conclusions of Atkin (1962) and Stanley and Sewall (1976) that reciprocal effects between corporate and store levels exist. These observations have both theoretical and managerial implications.

5.1. Theoretical Implications

This study contributes to theory because the conceptualization of reciprocal relationships for associative concepts can be explained using schema theory. With respect to the first research question, concerning the reciprocal relationship between corporate reputation and retail store equity, the results strongly support the existence of positive reciprocal relationship. Thus, it can be concluded that, in line with schema and associative network theory, schema activation can occur in both directions (e.g., Malle and Horowitz 1995) in that the links between two associative concepts point in two directions (Lei, Dawar, and Lemmink 2008). As positive reciprocal relationships exist between associative concepts in consumer's memories, the present study provides strong empirical evidence for marketing rules that may have previously been founded mostly on managerial experience. Furthermore, the relationship and its positive direction were congruently demonstrated in all three studies, for one retailer with 30 locations (cross-sectional design), for two other retail sectors in one city (longitudinal design), and for a real and fictional retailer setting in one sector (experimental design); thus, we can conclude that it may be stable. However, situational differences may occur because store-level factors may not dominate corporate-level factors for all consumers or in all local competitive situations, for example. Thus, we call for further tests of contingencies within our or similar reciprocal models.

With respect to the second research question, concerning the assumed differences in the strength of effects of corporate reputation and retail store equity on store loyalty, the results seems to be not fully consistent. However, two of our studies (the studies employing cross-sectional and longitudinal designs) show that retail store equity more strongly determines store loyalty than does corporate reputation. Consequently, it can be concluded that consumers activate the store-related node more frequently, i.e., through past and current shopping experiences (Anderson 1983; Malle and Horowitz 1995; Lei, Dawar, and Lemmink 2008), than the corporate-related node. Hence, consumers' direct contact with local stores (and thus the stored information about a specific store) primarily influences store loyalty among consumers in comparison to stored information about the corporation. More importantly, especially in our cross-sectional study, the direct effects of corporate reputation and store equi-

ty on store loyalty are of equal strength, whereas the total effect of store equity on store loyalty is significantly stronger. We conclude that this observation underlines the necessity of including reciprocal relations in future studies because otherwise, the observed isolated effects might bias the results and conclusions drawn from such studies. Again, this observation might vary according to various contingencies but seems to be stable, applying to 30 local stores of a DIY retailer in diverse local markets as well as to a typical local competitive situation of fashion and food retailers in one city. However, the experimental study does not support our assumption that retail store equity more strongly affects the store loyalty of consumers. These inconsistent findings must be discussed in greater detail. One reason for this contradictory result of the experimental study may be related to the study design (e.g., the sampling and manipulations). The presence of one underrepresented age group may have triggered the unexpected findings. This contradictory result may be also related to the abstract nature of the store-related information that was provided (i.e., the store was described as attractive and unique compared with other stores) in comparison with more specific, manipulated corporate information (i.e., excellent customer orientation and outstanding leadership in contrast with competing retailers). Although we find positive effects of the relationship between corporate reputation and retail store equity on store loyalty, the analysis of the strength of the effects requires further research.

According to the methodology, this article provides a valid procedure to test for reciprocity assumptions by means of consecutively conducted studies. Although each design is associated with the challenges and limitations that were discussed above, this procedure is a useful step-by-step approach to conduct a detailed analysis of corresponding assumptions and to understand reciprocity.

5.2. Managerial Implications

This study has managerial implications, highlighting the importance of the reciprocal effects that chain store retailers must take into account to efficiently attract consumers through various activities. Although the marketing rule of reciprocity may result from practical experience, it is beneficial to provide scientific evidence regarding whether there are interrelations between, for example, promotional investments, to determine which investment has a stronger

impact on consumer behavior, and how resources can be allocated more efficiently. In our context, the allocation of promotional investments between the more general corporate level and the more specific store level seems to be particularly challenging because consumer associations related to both levels interact in determining store loyalty and because these decisions are in the responsibility of different organizational units (e.g., corporate communication and sales). Thus, it is advantageous to align decisions so that positive, strong, and congruent associations of corporate reputation and store equity are created to take advantage of the reciprocal effects of these investments.

Because the results of our studies suggest that store loyalty is more strongly influenced by retail store equity than by corporate reputation (except in the experimental design), we conclude that retailers should generally focus on building a positive, strong, and unique retail store equity in the minds of consumers. This endeavor will be more effective in ensuring positive feedback on consumer store patronage behavior. However, solely focusing on store equity effects may be insufficient because corporate communication campaigns may be less expensive than campaigns concerning stores or further investments in creating attractive or unique stores. In practice, the efficient allocation of promotional resources depends on various contextual factors, such as the objectives of a retailer (e.g., for attracting more stakeholder groups, corporate communication may be more effective), the local competitive landscape (e.g., more effort should be placed on local stores in highly competitive communities), and especially consumer behavior (e.g., attracting consumers with high vs. low store experience). Thus, retailers need to consider these contingencies. Finally, our study demonstrates that positive relationships between constructs exist, but negative communication about the corporation (e.g., due to weak social responsibility) or negative consumer experiences in a store (e.g., due to weak service) may also be transferred and be of consequence.

6. Limitations and Further Research

With respect to the linkage between corporate reputation and retail store equity as well as their influence on consumer behavior for chain store retailers, there is still a need for further research. In addition to the limitations that were

briefly mentioned for each study, we identify three further limitations. First, we concentrated on two levels of perception in this study: the more general corporate reputation and the more specific retail store equity. Future studies could focus on other levels (e.g., store or products brands, corporate brands or chain brands in diversified companies, or e-commerce channels in multichannel retailing). However, there is an absence of common distinctions as well as related measures among some related concepts, such as reputation, image, and brand equity (Markwick and Fill 1997; Gotsi and Wilson 2001). Second, associative, and thus cognitive, schema theoretical reasoning has been used in this study. Hence, it may be challenging to apply schema theory to reciprocal effects concerning more affective concepts (Da Silva and Syed Alwi 2006). Third, despite the inclusion of some covariates, the analyses were conducted without consideration of further contextual factors. Thus, future research should consider the contingencies of reciprocal effects, taking into consideration factors such as consumer shopping motives (Schenk, Löffler, and Rauh 2007), self-confidence (Pan and Zinkhan 2006), or store and brand familiarity (Cowley and Mitchell 2003; Inman, Winer, and Ferraro 2009; Benedicktus et al. 2010), as these may influence the analyzed relationships and may provide additional insights into the boundary conditions of reciprocal effects on consumer behavior. However, we believe that the reciprocity and relative importance of retail store equity will still be demonstrated because our additional analysis (not reported here) on the moderating role of store familiarity (measured by the item “how often do you visit a particular store” (Inman, Winer, and Ferraro (2009)) also supports this conclusion.

C. Study 2: Retail Branding and Local Competition: The Importance of Retail Brand Equity and Store Accessibility for Store Loyalty in Local Competition[1]

1. Introduction

Retailers increasingly aim to position their chains in the minds of consumers as strong, attractive, and unique brands (Ailawadi and Keller 2004; Verhoef, Langerak, and Donkers 2007). For example, IKEA has built a strong retail brand that mobilizes customers to drive substantial distances to their stores (Jonsson and Foss 2011), and Aldi's brand strength is evoked in the memories of consumers even before a location opens. However, although the mantra for success is still `location, location, location´ for some retailers, Grewal et al. (2009; 2004) stated that retail brand equity determines the perceived values of local stores and the images of those stores. These authors assigned the predominant role of retail brand equity to consumer behavior, which is important because of the growing overstoring and convenience orientation of consumers, and because firms typically have one retail brand but several stores that differ in terms of local competition and access convenience. To analyze the relative importance of retail brand equity and store accessibility for store loyalty, this study focuses on two perspectives: 1) consumer evaluations of a focal retailer (i.e., a specific chain under investigation) and its local competitors in the same type of business and 2) the relationships among a focal retailer's brand equity, store accessibility, and loyalty in different (objective) local competitive situations. Accessibility is crucial in retailing (Reilly 1931; Grewal, Levy, and Kumar 2009) and is understood as the perceived convenience of a store's location. Retail brand equity is understood as the qualities that consumers associate with a retail chain, which serve as an important intangible asset (Jinfeng and Zhilong 2009). This topic is important for retailers because they must consider such effects when they allocate, for example, investments for building or supporting a strong retail brand or searching for accessible locations.

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Although scholars often study location issues, they have rarely focused on the relative importance of strong retail brands and store locations. According to early research (Reilly 1931; Huff 1964; Rust and Brown 1986; Achabal, Gorr, and Mahajan 1982; Durvasula, Sharma, and Andrews 1992), prior studies have focused on location as the core antecedent in explaining the store choices of consumers (Nakanishi and Cooper 1974; Bell, Ho, and Tang 1998; Finn and Louviere 1990; Popkowski Leszczyc, Sinha, and Timmermans 2000), their patronage, and store image (Mazursky and Jacoby 1986; Lindquist 1974). However, several studies have highlighted the decreasing relevance of location for the store choices of consumers (e.g., Bell, Ho, and Tang 1998), as explained, for example, by the increasing mobility of consumers. Furthermore, retail brand equity has increasingly garnered interest in recent literature (Grewal, Levy, and Lehmann 2004; Hartman and Spiro 2005; Jinfeng and Zhilong 2009; Burt and Davies 2010). Previous studies conceptualized the determining role of retail brand equity in location and consumer behavior (Grewal, Levy, and Kumar 2009). However, despite the indisputable relevance of both retail brand equity and accessible store location, we found no research that analyses the effects of both constructs in explaining store loyalty, either in general or with regard to different local competitive situations. Thus, we aim to answer the question of whether retail brand equity or store accessibility has a stronger influence on store loyalty. Furthermore, two additional research gaps emerge.

Studies have considered local competition to be an issue of perception, such as the perceived value of local competitors (Sirohi, McLaughlin, and Wittink 1998) or the impression of competitive intensity (Seiders et al. 2005), but have not compared the effects of retail brands and location associations on retailers with the effects on competitors. For example, Hartman and Spiro (2005) conceptualized store equity as consumer perceptions of one retailer in relation to those of other retailers using one variable. But separate evaluations of focal retailers and their competitors would allow for advanced conclusions regarding how the strong brand equity and store accessibility of both a focal retailer and its competitors determine store loyalty towards the focal retailer. For these reasons, we analyze the dependence of store loyalty towards a focal retailer on its own and the brand equity and store accessibility of its local competitors. An analysis of these issues will advance our knowledge of whether the brand

equity or store accessibility of competitors has a stronger influence on the store loyalty of consumers with respect to a focal retailer. This approach will further our understanding of the relationship between centrally managed retail brand equity and local, conveniently accessible store locations.

Many studies (e.g., Borgers and Timmermans 1987; Fotheringham 1988; Lo 1990; Cleeren et al. 2010) have considered the objective characteristics of local competition in shopping alternatives and choice or cherry-picking behavior (Talukdar, Gauri, and Grewal 2010). These studies have not addressed the objective differences of local competition within retail brand-location-loyalty relationships. However, those studies, in addition to research on both multipurpose shopping and comparison shopping (e.g., Popkowski Leszczyc, Sinha, and Sahgal 2004; Gijsbrechts, Campo, and Nisol 2008; Dellaert et al. 1998), suggested that a substantial distance between a focal retailer and a competitor may strengthen the relative importance of convenient access to the focal retailer's store because consumers may not wish to drive long distances. In contrast, a large number of competing stores may enhance the relative importance of a strong brand. Both scenarios are relevant for research and practice because a retailer can benefit from knowledge of how consumers are affected by brand and accessibility in different competitive situations. This knowledge may assist retailers in determining whether future investment allocations should support strong retail brands or accessible locations in their store networks.

In sum, this study aims to answer three research questions. Does retail brand equity or a convenient, accessible store location provide a greater contribution to the store loyalty of a focal retailer? To what extent do the retail brand equity and store accessibility of local competitors affect store loyalty towards a focal retailer? How do different objective competitive situations affect the brand and location effects on a focal retailer?

By investigating these questions, this study contributes to the retailing literature, particularly with respect to brand effects, location, and local competition. From a theoretical perspective, we respond to the recommendation of Grewal et al. (2004) for further research on retail branding and their call for more current studies on the issue of store location (Grewal, Levy, and Kumar 2009). Additionally, we present store loyalty as an important issue that remains wor-

thy of further research (Puccinelli et al. 2009), but loyalty is also a well-known outcome variable and thus facilitates our task of interpreting our findings in the context of past research. Furthermore, this study provides a detailed perspective on how retail brands predict the location perceptions and store loyalty of consumers, particularly in the context of local competition (subjective and objective). The latter has not been addressed in the retail literature; thus, centrally managed chain brands have not yet been properly studied. The findings of this study may further enhance retail managers' understanding of the current roles of strong retail brands and convenient, accessible locations in local competition. The remainder of the article is structured as follows. Based on theory and past studies, we derive a set of hypotheses that are tested using a cross-sectional consumer sample from 30 cities. The results are presented and followed by a discussion of the study and its limitations.

2. Conceptualization and Hypothesis Development

2.1. Conceptual Framework and Theory

In this section, we examine the hypotheses proposed in this study. Our conceptual model summarizes the set of relationships examined in this paper (see Figure C–1). Using the work of Grewal et al. (2004; 2009) and schema theoretical reasoning, we propose that the brand equity of a focal retailer directly and indirectly determines store loyalty via store accessibility. Moreover, we suggest that the focal retailer's store loyalty also depends on the subjective perceptions of the retail brand equity and store accessibility (Hartman and Spiro 2005) of the competitors (i.e., a retailer within the same business) (Sloot, Verhoef, and Franses 2005; Gauri, Trivedi, and Grewal 2008). Finally, we propose that the relationships to store loyalty are moderated by the objective characteristics of local competition because the literature shows that these characteristics may change the scope of the effects considering the focal retailer (Seiders et al. 2005; Gauri, Trivedi, and Grewal 2008).

Store loyalty is defined as the intention and readiness to repurchase at a particular store or recommend a store (Evanschitzky and Wunderlich 2006; Oliver 1999). Therefore, store loyalty is understood as conative loyalty that represents the penultimate stage in loyalty formation (Harris and Goode 2004) and

is viewed as a core predictor of consumer spending (Macintosh and Lockshin 1997). Retail brand equity is defined as a consumer's associations of a focal or competing retail chain as a strong, unique, and attractive brand (Verhoef, Langerak, and Donkers 2007, p. 100). Retail brand equity refers to a chain-level retailer (Burt and Davies 2010); therefore, it corresponds to the 'Gestalt view' of a retail brand (Keaveney and Hunt 1992) and differs from the perspective of Martineau (1958a), who interpreted store image as the sum of store-level associations (Ailawadi and Keller 2004). Store accessibility is defined as the consumer-perceived convenience of store access in terms of ease, speed, and simplicity (Teller and Reutterer 2008).

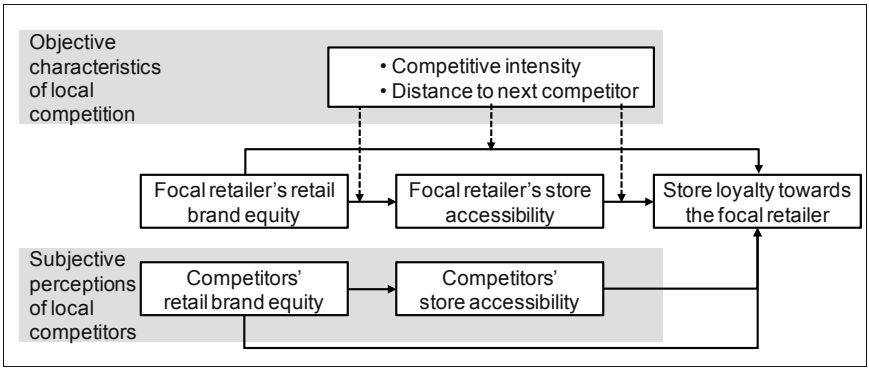

Figure C–1: Conceptual framework
Source: Own creation.

To address our research questions, we draw from three streams of theory and consider how past studies have examined loyalty, location, and competition from different theoretical perspectives (for an overview, see Brown and Dant 2009; Craig, Ghosh, and McLafferty 1984).

We refer to schema theory (Bartlett 1995; McVee, Dunsmore, and Gavelek 2005; Puligadda, Ross Jr., and Grewal 2012) and thus rely on network models of consumer memory to explain retail brand equity and store accessibility as the antecedents of store loyalty. A network consists of nodes or concepts, such as objects and attributes, which represent stored information (e.g., Nelson et al. 1993), and the links between those nodes that are based on past experience (Mandler 1979). For example, consumers possess information re-

garding a chain's retail brand and its stores as nodes in their minds as well as links between them; in hierarchical networks, retail brands are linked to subcategories (Cowley and Mitchell 2003), such as store-level information. Thus, brand equity and store accessibility represent different levels in a retail brand schema. As general information regarding retail brands is stored on the corporate (retail brand) level, retail brand equity refers to superior-level associations rather than store-level information, such as store accessibility. Referring to this structure of general retail brand associations and store-level attributes in the memories of consumers, we believe that retail brand equity influences the store location accessibility perceptions of consumers. This view supports the conceptualization provided by Grewal et al. (2004; 2009).

Further, we draw on the theory of the allocation of time (Becker 1965) and the law of retail gravitation (e.g., Reilly 1931) because both notions addressed (objective) local competition and proposed that competitive intensity and distance to the nearest competitor influence relationships with the focal retailer. These theories assist in clarifying how the strength of the effects of a focal retailer's retail brand equity and store accessibility differ as a result of varying local competitive situations (Seiders et al. 2005). Thus, we follow Dellaert et al. (2008), who asserted that varying contexts influence mental representations or information retrieval and thus also influence the determining effects on store loyalty. Consequently, we focus on two well-established variables: competitive intensity (i.e., the number of competitors in the trading area of a focal retailer (Sloot, Verhoef, and Franses 2005)) and (geographic) distance to the next competitor (Gauri, Trivedi, and Grewal 2008). Both of these variables are known to influence store choice and switching behavior (Seiders et al. 2005; Gauri, Trivedi, and Grewal 2008). The theory of the allocation of time is used to explain the influence of competitive intensity and distance to the next competitor on the effect of a focal retailer's store accessibility. As an increasing number of consumers encounter situations of time poverty, they tend to seek an optimal allocation of their time (Jacoby, Szybillo, and Berning 1976). Retail gravitation theory implies that there is a trade-off between store attractiveness and distance to a store. This theory is used to explain the influence of local competitive intensity and distance to the next competitor on the effects of a focal retailer's retail brand equity.

In the following sections, we first hypothesize the effects of a focal retailer and its competitors, and we then hypothesize the effects of the objective characteristics of local competition.

2.2. Hypotheses on the Perceptions of a Focal Retailer and its Competitors

Three relationships are explained based on schema theoretical reasoning in this section: 1) the effects of retail brand equity and store accessibility on loyalty, 2) the relationship between retail brand equity and store accessibility, and 3) the relative strength of both constructs on loyalty.

As noted previously, schema theory explains how information is stored in and retrieved from the memories of consumers (e.g., when deciding whether to shop at a store). For example, such brand schemes are stored in the memories of consumers as associative networks (Anderson 1983). Consumers refer to these associations when deciding whether to repurchase. In fact, Sirgy and Samli (1985) reported that consumers refer to schemata when deciding where to purchase; thus, a focal retailer's retail brand equity and store accessibility can be considered the antecedents of store loyalty.

The same logic applies to the relationship between the retail brand equity and store accessibility of competitors, as consumers consider these elements of the brand schemes of competitors when deciding whether to repurchase at a specific retailer's location. Customers tend to compare local retailers (Hoch et al. 1995). If local competition is high and competitors are located near the focal retailer, then competitive advantages may erode (Seiders et al. 2005).Thus, customers tend to be less loyal to a focal retailer when the brand schemes of its competitors are more positive (Gounaris and Stathakopoulos 2004), as perceptions of competitors may affect store loyalty towards the focal retailer negatively if equally strong retailers are competing with one another.

In sum, considering schema theory and empirical studies (Pan and Zinkhan 2006; Chaudhuri and Ligas 2009; Jinfeng and Zhilong 2009), we argue that a focal retailer's retail brand equity and store accessibility positively affect store loyalty towards the focal retailer. Furthermore, as consumer associations with a competitor's retail brand and store accessibility compete with those with a focal retailer (James, Durand, and Dreves 1976), we conclude that positive

competitor associations will negatively affect loyalty to a focal retailer. Therefore, we propose the following hypothesis:

H1a. The retail brand equity of a focal retailer has a positive effect on its store loyalty.

H1b. The store accessibility of a focal retailer has a positive effect on its store loyalty.

H2a. The retail brand equity of competitors has a negative effect on store loyalty towards the focal retailer.

H2a. The store accessibility of competitors has a negative effect on store loyalty towards the focal retailer.

Second, to understand the relationship between retail brand equity and store accessibility, one can again refer to the hierarchical networks that suggest that the cognitive representations of consumers follow a hierarchical structure (e.g., Hutchinson, Raman, and Mantrala 1994; Nedungadi 1990), whereas in our model, the nodes of the network represent the concepts of the retail brand (on the general 'Gestalt' level) and a store node, with its attributes (such as store accessibility) that are linked in the network as elements of different hierarchical levels. The retail brand of a chain store retailer acts as an 'umbrella' that comprises each individual store. However, each local store generates specific associations, has individual characteristics, and is thus perceived in an individual manner. For example, retailers such as Carrefour have locations that are easy or difficult to access from the perspectives of their customers and thus differ with regard to store-level associations (i.e., perceptions of store locations). As noted previously, associations with a retail brand and those with a store are elements of the hierarchically structured network in which consumer associations are stored in their memories. For our research context, we expect the influences to spread (Anderson 1983; Cowley and Mitchell 2003), flowing from the hierarchically higher level (i.e., the retail brand level) to the hierarchically lower level (i.e., the store level). For example, the retail brand node is activated through a television image campaign, and this activation allows for the activation of other related nodes (e.g., information regarding the accessibility of a particular store, which accounts for the store's node). Therefore, we expect

retail brand associations (i.e., retail brand equity) to have a positive influence on perceived store accessibility. The directionality of this relationship also reflects the exposure to new information (e.g., a new store) that consumers attempt to integrate into an existing chain or corporate brand node to facilitate attitude formation with respect to the new entity (e.g., Boush and Loken 1991). In this case, a retailer's name serves as a retrieval cue (Biehal and Sheinin 2007) for information that is stored in consumer memories and for the categorization process if the information is consistent. If categorization is successful, then consumers transfer their corporate associations to the new entity (the new store). Such behavior has already been observed in early studies that analyzed consumers who had recently moved to a new apartment building and used a brand as a retrieval cue to chose a store at the new place of residence (e.g., Atkin 1962) as well as more recent studies on store brands (Grewal et al. 1998; Bao, Bao, and Sheng 2011; Martenson 2007).

These considerations are consistent with the conceptualization of Grewal et al. (2004; 2009), who emphasized the effects of retail brands on the evaluation of store attributes (e.g., Bloemer, De Ruyter, and Peeters 1998, for quality perceptions), which, in turn, influence consumer satisfaction, intention, and word of mouth. Thus, we conclude that strong and positive retail brand equity results in more positive perceptions of store accessibility. For example, a strong brand could induce consumers to drive a relatively long distance even if a store is (on an objective level) not easily accessible. The same relationship is expected with regard to the retail brand equity and store accessibility of competitors. Thus, we propose the following hypothesis:

H3a. The retail brand equity of a focal retailer has a positive effect on its store accessibility.

H3b. The retail brand equity of competitors has a positive effect on the store accessibility of these retailers.

Third, it is of interest to analyze whether retail brand equity or store accessibility offers a greater contribution to store loyalty. It is well known that consumers retrieve information that is stored in their memories to plan, solve problems or make decisions, and thus to decide whether to repurchase at a store (Marshall 1995). To explain which of these concepts is a stronger predictor of store loy-

alty we can rely on the strength of the linkages of both concepts. The strength of the linkages can be explained through the degree of activation. According to numerous scholars (Anderson 1983; Krishnan 1996; Lei, Dawar, and Lemmink 2008), the strength of activation and the number of connections between a node and its associations increases with practice and thus with repeated activation. Thus, the possibility of retrieving a node is higher for nodes with more connections and with more frequent activation. Following this reasoning and knowing that the strength of links is based on the degree of repetition, practice, and recurring experience (Eckblad 1981; Anderson 1983; Malle and Horowitz 1995; Cowley and Mitchell 2003; Campbell and Keller 2003; Lei, Dawar, and Lemmink 2008), one may imagine that the retail brand concept is activated and updated more frequently and that the store accessibility concept is used and activated less frequently. These differences may occur because the retail brand concept is activated directly and indirectly (e.g., via a retailer's advertising, information in newspapers, personal recommendations or via stores as the point of purchase). Furthermore, the accessibility concept may be less frequently activated in a direct manner if consumers do not frequently think about convenient accessibility. As the retail brand node is activated more often, it is likely that the respective store attribute of accessibility is retrieved less frequently by consumers. Thus, we propose that retail brand equity has a stronger influence on store loyalty than does store accessibility.

H4a. The retail brand equity of a focal retailer influences its store loyalty more strongly than its store accessibility does.

H4b. The retail brand equity of competitors influences store loyalty towards the focal retailer more strongly than the competitors' store accessibility does.

2.3. Hypotheses regarding the Effects of the Objective Characteristics of Local Competition

In the following sections, we first hypothesize the moderating effects of competitive intensity considering the effects on a focal retailer, and we then hypothesize the moderating effects of distance to the next competitor considering the effects on the focal retailer.

Focusing first on *competitive intensity*, we assume that greater competitive intensity is associated with a weaker positive effect of a focal retailer's store accessibility on store loyalty. The theory of the allocation of time (Becker 1965) states that one portion of overall household time is dedicated to consumer shopping activities. Thus, transportation and search costs are included in the total costs of shopping (Gauri, Trivedi, and Grewal 2008). The search costs for a specific product increase if time and money are needed to determine exactly what a consumer wants to purchase and where he or she wishes to shop. With regard to multi-purpose or comparison shopping and depending on the product category, consumers may need to spend time visiting stores in several locations. Consequently, if a large number of retailers in an area sell the same products, then the search costs of customers decrease. A search for a specific product entails less time and lower costs because the distances between the stores are shortened. Thus, especially in the context of comparison shopping, highly competitive situations reduce the costs that consumers pay when searching for a specific product because they can easily determine where, for example, the product quality, price, or service is best (Gijsbrechts, Campo, and Nisol 2008). Thus, high competitive intensity (for example, in retail agglomerations) creates synergy effects for consumers with regard to their shopping tasks, and these effects may attenuate the influence of store accessibility on store loyalty. Therefore, a context with numerous retailers in the same area with the same accessibility leads consumers to activate the respective retail brand nodes rather than retrieving accessibility information to determine where to shop. Consequently, we assume that competitive intensity will reduce the positive effect of store accessibility on store loyalty.

Additionally, we suppose that with increasing competitive intensity, the influence of retail brand equity on store loyalty will increase. We offer this supposition because if there is a high concentration of competitors, then retail brand strength is likely to be more important in forming store loyalty. In situations in which customers can easily compare retailers, such as situations with high competitive intensity on the local level, competitors react to these or other retailers' marketing activities, which in turn leads to an alleviation of retailer offerings; thus, the relative advantages of each store are narrow (Seiders et al. 2005). However, these effects account for only the unsustainable dimensions

of the retailer marketing mix that are easy to copy or to compensate (e.g., pricing policy or promotion activities). In such situations, strong retail brands induce differentiation. Thus, the influence of retail brand equity on store loyalty increases as competitive intensity increases. Moreover, as retail brand equity reflects the overall favorability of a retailer that is transferred to each single store, the influence of retail brand equity on consumer perception of store accessibility increases with the degree of competitive intensity. A higher number of shopping alternatives in an area (i.e., a higher competitive intensity) indicates that more retailers sell the same products in the same area, and this higher number has a positive influence on comparison shopping scenarios and implies that the gravitational effect of an associated retail agglomeration also increases (Nelson 1958). In this situation, the relevance of a specific store location assessment by a consumer depends less on aspects that include distance to the store (as it is more or less similar for all stores in an area); rather, the gravitational pull is greatest for the most favorable retail brand. This context may in turn lead to a more positive assessment of a single store's location, as the assessment processes include positive, more confirmative effects of brand familiarity (Campbell and Keller 2003). Therefore, the presence of numerous retailers in the same area with the same accessibility leads consumers to deemphasize the node that considers accessibility because all retailers are located near consumers, and brand information is thus retrieved. Consequently, a focal retailer can use a strong retail brand to overcome the erosion of location-specific advantages that may be caused by growing local competition (James, Durand, and Dreves 1976). Thus, we hypothesize as follows:

H5a. For a focal retailer's stores with higher competitive intensity, the positive influence of store accessibility on store loyalty will decrease.

H5b. For a focal retailer's stores with higher competitive intensity, the positive influence of retail brand equity on store loyalty will increase.

H5c. For a focal retailer's stores with higher competitive intensity, the positive influence of retail brand equity on store accessibility will increase.

Focusing second on the *distance to the next competitor*, we assume that a larger distance to the next competitor is associated with a stronger positive effect of the focal retailer's store accessibility on store loyalty. Shopping costs will increase for consumers if the next closest shopping alternative for a specific product is located far from the focal retailer. Thus, when the distance between a retailer and its closest competitor is greater, the convenience and accessibility of the focal retailer's store will be more important (both for multi-purpose and comparison shopping tasks); thus, the focal retailer's specific store location will serve as the base for consumer store loyalty. Therefore, consumers retrieve accessibility information rather than brand information when considering where to purchase if the next potential competitor is far away. This reasoning is supported by Clark and Rushton (1970), who found that distance and accessibility play a smaller role in the choice of a competitor if the competing store is located far from the focal store. These assumptions are also supported by gravitation theory. With growing geographic distance between a focal retailer and its competitors, the relevance of a store location assessment increases. However, retail brand equity continues to act as an important element of the gravitational force for stores; nevertheless, with growing distance among competitors, consumers who want to patronize a series of stores (for example, if they are engaging in multi-purpose or comparison shopping tasks) must consider the higher cost of shopping and thus focus more strongly on store accessibility.

In turn, as already argued in the context of the effects of competitive intensity, if several shopping alternatives are nearby, then retail brand equity will be more important to consumer store choice (Craig, Ghosh, and McLafferty 1984) and thus to store loyalty. Accordingly, if the next competitor is nearby, then a consumer need not be concerned about the accessibility of a store and may then retrieve brand information to decide where to shop. Therefore, consumers retrieve brand information rather than accessibility information if the next competitor is nearby. Consequently, the accessibility of a focal retailer increases in relevance with a larger distance to the next competitor. Therefore, retail brand equity will play a less important role in determining store loyalty and store accessibility. Thus, we present the following hypothesis:

H6a. When there is greater distance between a focal retailer's stores and its next closest competitor, store accessibility will have a greater influence on store loyalty.

H6b. When there is greater distance between a focal retailer's stores and its next closest competitor, retail brand equity will have a lower influence on store loyalty.

H6c. When there is greater distance between a focal retailer's stores and its next closest competitor, retail brand equity will have a lower influence on store accessibility.

3. Empirical Study

3.1. Sample Design

To analyze our hypotheses, we conducted a consumer survey. To develop the cross-sectional sample, we cooperated with a leading European chain store retailer in the home improvement and do-it-yourself (DIY) sector. This retailer has more than 250 stores located in suburban (downtown) areas and uses a standardized retail brand that is coordinated and communicated centrally. To ensure the independence of consumer perceptions with regard to the focal retailer's stores, we asked the chief marketing officer and area sales managers to suggest stores with varying degrees of productivity (in terms of rental space) in different cities across the country. We randomly chose 30 of the 60 cities that they proposed for the survey. We verified that specific promotional activities were not conducted during or one week prior to the data collection period. Following Verhoef et al. (2007), we created a sector-specific quota sampling method based on age and gender. Our aim was to interview 120-150 consumers per city. The sample distribution of typical DIY consumers was provided by the independent national DIY organization.

After the pre-tests were administered, the survey was conducted using a standardized questionnaire and face-to-face-interviews over the course of one week in each city, with approximately the same number of interviews conducted each day. This method was intended to prevent possible biases, as the

number of customers and sales may differ depending on the day of the week. Every third person who passed the interviewers in the city centre and conformed to the sample was asked to participate (similar to Orth and Holancova 2004). Each respondent was first asked to list the local DIY retailers with which he or she knew. Subsequently, the respondents were asked to describe the frequency with which they purchased from each of the retailers. Only the respondents who knew of the focal retailer and had shopped at the particular store participated in the survey. The latter procedure was chosen to ensure that the conveniently accessible location was known to the consumers and because the pre-tests underscore the difficulties of consumers in evaluating the accessibility of stores that they have never visited before. Additionally, the first competitor that was mentioned (top of mind) by each respondent from which the respondent had purchased products was used as the second retailer to evaluate in this study. Thus, depending on the city, up to seven competitors are included in the survey. This procedure provided a total of 4,151 respondents for an average of 138 respondents per city. The actual sample distribution satisfied the planned quota sample (see Table C–1).

	Realized quota sample						**Planned quota sample**		
	Male		Female		Total		Male	Female	Total
Age groups	N	%	N	%	N	%	%	%	%
Age 16 to 29	408	10.1	172	3.8	580	14.0	8.4	2.6	11.0
Age 30 to 39	665	16.5	235	5.2	900	21.9	16.7	5.3	22.0
Age 40 to 49	786	19.5	270	6.0	1,056	25.4	21.3	6.7	28.0
Age 50 to 64	749	18.6	270	6.0	1,019	24.6	18.2	5.8	24.0
Age over 64	456	11.3	140	3.0	596	14.4	11.4	3.6	15.0
Total	3,064	76.0	1,087	24.0	4,151	100.0	76.0	24.0	100.0

Table C–1: Sample characteristics

Source: Own creation.

3.2. Measurement

All of the measurements of the latent constructs were based on previous studies (see Table C–2) and were obtained from a survey using 7-point Likert-type scales (from 1 = strongly disagree to 7 = strongly agree). Following Teller and Reutterer (2008), we measured store accessibility using three items (speed, simplicity, and ease of access to a store). We measured retail brand equity according to the scale of Verhoef et al. (2007), who used four items (strong, well-known, favorable, and unique brand). Although retail brand equity is un-

derstood at a superior organizational level, the scale was measured at the store level, as other scholars have measured similar constructs (e.g., Jinfeng and Zhilong 2009; Arnold, Oum, and Tigert 1983; Jacoby and Mazursky 1984). Store loyalty is measured using three items in accordance with the research of Sirohi et al. (1998). The store accessibility and retail brand equity of competitors were measured analogically. Specifically, we adapted the store accessibility measure using a single item with three components (quick, simple, and easy). The scales were pre-tested by conducting two consumer focus groups and by using a questionnaire in a single city (N = 170). The quantitative pretest provided satisfactory values for reliability and validity. The objective measures were based on previous studies and have been adapted to our retail sector. Competitive intensity (i.e., the number of competitors within a radius of two kilometers) and distance to the next competitor (in kilometers) were measured by following Talukdar et al. (2010). The choices were based on information from the focal retailer's sales managers on relevant competitor distances in the retail sector and were handled by the median split technique (for a similar method, see, e.g., Gauri, Sudhir, and Talukdar 2008). We differentiated between low and high competitive intensity (≤2 and >2 competitors) and between short and long distance to the next competitor (≤2 and >2 kilometers). The information on the number of competitors and the relevant distances was provided by the managers and was double-checked using two commercial databases.

We controlled for two groups of variables: consumer-related variables and individual-store variables. As the sector-specific sample structure does not follow the general distribution of the base population and as consumer behavior may be influenced by gender (0 = male, 1 = female) and age (Schenk, Löffler, and Rauh 2007), we controlled for both variables. We also included a variable that describes the DIY ability as a covariate (self-reported on a four-point scale ranging from beginner to expert) based on the work of Pan and Zinkhan (2006), who suggest that personality traits, such as self-confidence, may influence store patronage. Finally, we controlled for four store location-related variables using binary covariates (0 = no, 1 = yes): closeness to a freeway; closeness to a national road (Kim and Choi 2007); closeness to a residential area (González-Benito, Muñoz-Gallego, and Kopalle 2005); and an agglomeration

(Fox, Postrel, and McLaughlin 2007), which is understood as the proximity of a DIY store to other types of retail stores. The data on store-related covariates were collected during the study.

Construct	Item		Source
Store Accessibility (focal retailer)	SA1	I can get to store X quickly.	Teller and Reutterer (2008)
	SA2	I can get to store X without problems.	
	SA3	I can get to store X easily.	
Retail Brand Equity (focal retailer)	RBE1	Store X is a strong brand.	Verhoef et al. (2007); Keller (1993)
	RBE2	Store X is a well-known brand.	
	RBE3	Store X is an attractive brand.	
	RBE4	Store X is a unique brand.	
Store Loyalty (focal retailer)	SL1	I'm sure to repurchase at store X.	Adopted from Sirohi et al. (1998)
	SL2	In the future, I will buy more at store X than at another retailer.	
	SL3	I would recommend store X to friends and others.	
Competitors' Store Accessibility	CSA	Store Y is accessible (quick and easy).	Adopted from Teller and Reutterer (2008)
Competitors' Retail Brand Equity	CRBE1	Store Y is a strong brand.	Verhoef et al. (2007); Keller (1993)
	CRBE2	Store X is a well-known brand.	
	CRBE3	Store Y is an attractive brand.	
	CRBE4	Store Y is a unique brand.	
Competitive Intensity	CI	Number of competitors within two kilometers.	Talukdar et al. (2010)
Distance to next Competitor	DtC	Distance of next competitor in kilometers.	

Notes: SA = Store Accessibility, RBE = Retail Brand Equity, SL = Store Loyalty, CSA = Competitors' Store Accessibility, CRBE = Competitors' Retail Brand Equity, CI = Competitive Intensity, DtC = Distance to next Competitor.

Table C–2: Measurements

Source: Own creation.

Prior to the analysis of confirmatory and structural modeling, we tested for univariate normality with regard to kurtosis and skewness (Finch, West, and MacKinnon 1997) and multivariate normality using Mardia's coefficient (Vlachopoulos 2008). All values indicated that the data are normally distributed.

3.3. Method

The methodical approach that was used was threefold. First, the measurements were tested for reliability, validity, and possible biases. Second, the requirements for multilevel modeling were checked. Third, the hypotheses were tested.

To confirm the reliability of the measurements (see Table C–3), we ensured that the corrected item-to-total correlation was above .5 (Hair et al. 2006, p. 137). The threshold was not met for the well-known and uniqueness items of the retail brand constructs; thus, these items were excluded from further analysis. To assess construct reliability, we computed Cronbach's alpha and composite reliability. These values exceed the recommended thresholds of .7 (Nunnally 1978, p. 245) and .6 (Bagozzi and Yi 1988, p. 80), respectively. Face validity was assessed using pre-tests. For construct validity, all of the factor loadings of the confirmatory factor analysis (CFA) were above .5 (Hair et al. 2006, p. 777), and the average variance extracted (AVE) values with a threshold of .5 provided support for convergent validity (Bagozzi and Yi 1988, p. 80).

Construct	Item	MV/Std.	ItTC	α	CR	λ
Store Accessibility (focal retailer)	SA1	5.1/1.7	.788	.882	.889	.859
	SA2	5.6/1.3	.736			.798
	SA3	5.4/1.5	.813			.894
Retail Brand Equity (focal retailer)	RBE1	5.2/1.2	[b]	.509[b]	.687	.636
	RBE2[a]	5.9/1.1	-			-
	RBE3	5.0/1.3	[b]			.800
	RBE4[a]	3.9/1.6	-			-
Store Loyalty (focal retailer)	SL1	5.5/1.5	.647	.820	.754	.743
	SL2	4.3/1.7	.667			.762
	SL3	4.8/1.5	.726			.841
Competitors' Store Accessibility	CSA	5.4/1.4	-	-	-	-
Competitors' Retail Brand Equity	CRBE1	5.2/1.3	[b]	.543[b]	.720	.637
	CRBE2[a]	5.6/1.3	-			-
	CRBE3	5.0/1.3	[b]			.852
	CRBE4[a]	3.8/1.6	-			-
Confirmatory model fit: CFI .956; TLI .930; RMSEA .075; SRMR .032; $\chi^2(35) = 854.279$.						
Competitive Intensity	CI	2.4/1.4	-	-	-	-
Distance to next Competitor	DtC	2.2/2.3	-	-	-	-

Notes: SA = Store Accessibility, RBE = Retail Brand Equity, SL = Store Loyalty, CSA = Competitors' Store Accessibility, CRBE = Competitors' Retail Brand Equity, CI = Competitive Intensity, DtC = Distance to next Competitor.; MV/Std. = Mean values and standard deviations, ItTC = Item-to-Total Correlation (≥ .5), α = Cronbach's alpha (≥ .7) CR = Composite reliability (≥ .6), λ = Standardized factor loadings (CFA) (≥ .5).

[a] Item deleted after low Item-to-Total Correlation.

[b] ItTC and α cannot be computed for two items. Thus, the Pearson correlation is provided instead of α.

Table C–3: Reliability and validity of measurements

Source: Own creation.

We also tested the five latent constructs for discriminant validity (Fornell and Larcker 1981, p. 46). As all of the squared correlations were smaller than the two respective AVE values, discriminant validity is confirmed (see Table C–4). Finally, the fit values for the confirmatory model were satisfactory (Hu and Bentler 1999; Browne and Cudeck 1992; Hair et al. 2006) (CFI .956; TLI .930; RMSEA .075; SRMR .032; $\chi^2(35) = 854.279$), despite the χ^2/df value (Hinkin 1995). As the latter is dependent on sample size, a value beyond the recommended threshold can be considered acceptable (Wheaton 1987, p. 128; Kline 2011, p. 204). The probability of non-response bias was controlled only by the selection procedure during the data collection process. Regarding common method bias we used an appropriate questionnaire design a priori and employed a successful single-factor test using a confirmatory factor analysis (Podsakoff et al. 2003) a posteriori. The model with all items loading on a single factor (CFI .625; TLI .532; RMSEA .195; SRMR .119; $\chi^2(44) = 6972.673$) showed significantly poorer fit values in comparison with our model ($\Delta\chi^2(9) = 6{,}118.394$, $p < .000$). Thus, we can assume that common method bias is reduced within our sample.

Constructs	AVE	SA	RBE	SL	CRBE
SA	.731	-			
RBE	.528	*.157*	-		
SL	.508	*.360*	*.496*	-	
CRBE	.568	*.000*	*.095*	*.002*	-
CSA	-	*.001*	*.003*	*.002*	*.074*

Notes: AVE = Average variance extracted (≥ .5); values in italics represent the squared correlations between the constructs; SA = Store Accessibility, RBE = Retail Brand Equity, SL = Store Loyalty (all for the focal retailer), CSA = Competitors' Store Accessibility, CRBE = Competitors' Retail Brand Equity.

Table C–4: Discriminant validity

Source: Own creation.

Because the data have a hierarchical structure (the consumers are nested within the 30 stores), we tested for the requirements of multilevel modeling (Wagner et al. 2006) and found small intra-class correlations for all of the items (under .038). However, as the variance of our dependent variable was not significant among the stores, there is no significant variation in consumer perceptions among the stores. Therefore, we did not test the hypotheses with multi-level modeling, as no additional explanation of variance can be provided.

To test H1 to H4, we applied a structural equation model using a robust maximum likelihood estimation (MLR) with Mplus, which showed satisfactory global fit values for the proposed model (CFI .937; TLI .911; RMSEA .051; SRMR .033; $\chi^2(94) = 1{,}128.450$). Additionally, we calculated two rival models. Retail brand equity may be affected by store accessibility, and the retail brand equity of competitors could be influenced by their store accessibility. Applying retail brand equity as a mediator rather than store accessibility resulted in poorer fit values (CFI .930; TLI .902; RMSEA .049; SRMR .035; $\chi^2(94) = 1{,}239.394$; $\Delta\chi^2(0) = 110.944$, $\Delta BIC = 132.482$). We further calculated a nested model without effect between retail brand equity and store accessibility (model without mediating effects). The fit measures of this second model were significantly poorer than those of the proposed model (CFI .893; TLI .853; RMSEA .066; SRMR .069; $\chi^2(96) = 1{,}848.237$; $\Delta\chi^2(2) = 719.787$, $p < .001$). These results supported the proposed model.

To test H5 and H6, we applied two multiple group analyses (using the median split technique (Gauri, Sudhir, and Talukdar 2008)) and considered unstandardized structural coefficients (Singh 1995). We conducted a test of measurement invariance to assess the measurement equivalence among the considered groups (Cheung and Rensvold 2002) (i.e., between low and high competitive intensity and between short and long distance to the next competitor). The results indicated the good fit of the confirmatory models (Chen et al. 2008; Hu and Bentler 1999, p. 27). Additionally, the findings showed that partial scalar invariance holds for all of the constructs and groups (see Table C–5). The derived partial invariance models of both moderators (competitive intensity and distance to the next competitors) are used in the subsequent analyses of hypothesis testing. The global fit measures for the calculated multiple group structural equation models, which consider the moderating effects of competitive intensity (CFI .932; TLI .909; RMSEA .052; SRMR .037; $\chi^2(196) = 1{,}316.823$) and distance to the next competitor (CFI .929; TLI .905; RMSEA .054; SRMR .040; $\chi^2(197) = 1{,}372.049$), were satisfactory.

Model	χ^2/df (scaling correction factor)	χ^2-Difference (p-value)	CFI (ΔCFI)	TLI (ΔTLI)	RMSEA (ΔRMSEA)
Low and high competitive intensities					
Model 1: Configural invariance	746.756/70 (1.211)	-	.951	.923 (-)	.068 (-)
Model 2: Full metric invariance	759.146/76 (1.218)	15.633 (<.025)	.950 (.001)	.928 (.005)	.066 (.002)
Model 3: Partial metric invariance[a]	749.691/75 (1.220)	7.653 (<.200)	.951 (.000)	.928 (.005)	.066 (.002)
Model 4: Partial metric and full scalar invariance	793.100/81 (1.204)	40.109 (<.001)	.948 (.003)	.930 (.002)	.065 (.001)
Model 5: Partial metric and partial scalar invariance[b]	759.791/78 (1.211)	5.562 (<.150)	.950 (.001)	.930 (.002)	.065 (.003)
Short and long distances to the next competitor					
Model 1: Configural invariance	735.186/70 (1.205)	-	.952	.925 (-)	.068 (-)
Model 2: Full metric invariance	748.937/76 (.000)	16.861 (<.025)	.951 (.001)	.930 (.005)	.065 (.003)
Model 3: Partial metric invariance[c]	743.084/75 (1.203)	6.835 (<.200)	.952 (.000)	.929 (.004)	.066 (.002)
Model 4: Partial metric and full scalar invariance	784.151/81 (1.187)	37.342 (<.001)	.949 (.003)	.931 (.002)	.065 (.001)
Model 5: Partial metric and partial scalar invariance[d]	755.981/79 (1.191)	6.670 (<.150)	.951 (.001)	.932 (.003)	.064 (.002)

Notes: SA = Store Accessibility, RBE = Retail Brand Equity; SL = Store Loyalty (all for the focal retailer).
[a] The factor loading is freed for the third SL item.
[b] The intercepts are freed for the first SL item, the first RBE item, and the first SA item.
[c] The factor loading is freed for the second SA item.
[d] The intercepts are freed for the second SL item and the first RBE item.

Table C–5: Measurement invariance tests

Source: Own creation.

3.4. Results

Because retail brand equity (.634, $p < .001$) and store accessibility (.361, $p < .001$) have positive and significant effects on store loyalty towards the focal retailer (see Table C–6), H1a and H1b are supported. Accordingly, both the retail brand equity of competitors (-.226, $p < .001$) and their store accessibility (-.034, $p < .05$) have negative significant effects on store loyalty towards the focal retailer. This finding supports H2a and H2b. H3a and H3b are also sup-

ported because retail brand equity has a positive significant effect on store accessibility (.390, p < .001), and the retail brand equity of competitors has a significant positive effect on their store accessibility (.268, p < .001). Furthermore, the indirect effect of retail brand equity on store loyalty is positive (.141, p < .001) (Sobel 1987), and the indirect effect of the retail brand equity of competitors on store loyalty is negative (-.009, p < .01).

		Model 1		Model 2		Model 3	
		structural coefficients	p-value	structural coefficients	p-value	structural coefficients	p-value
H1b, H4a	SA → SL	.377	***	.373	***	.361	***
H1a, H4a	RBE → SL	.558	***	.625	***	.634	***
H3a,	RBE → SA	.398	***	.385	***	.390	***
H2b, H4b	CSA → SL			-.031	*	-.034	*
H2a, H4b	CRBE → SL			-.224	***	-.226	***
H3b	CRBE→ CSA			.289	***	.268	***
	Covariates:						
	Age					-.013	ns
	Gender					.039	**
	DIY abilities					.061	***
	Closeness to freeway					.012	ns
	Closeness to national road					.036	**
	Closeness to residential area					-.003	ns
	Agglomeration					-.021	ns
	Indirect effect of RBE on SL	.150	***	.143	***	.141	***
	Indirect effect of CRBE on SL			-.008	*	-.009	*
	R^2	.621	***	.660	***	.670	***

Structural model fits:
Model 1: CFI .977; TLI .962; RMSEA .059; SRMR .029; $\chi^2(17) = 261.072$.
Model 2: CFI .948; TLI .925; RMSEA .067; SRMR .039; $\chi^2(38) = 748.850$.
Model 3: CFI .937; TLI .911; RMSEA .051; SRMR .033; $\chi^2(94) = 1{,}128.450$.

Notes: *** p < .001, ** p < .01, * p < .05, ns = not significant; standardized coefficients and p-values are illustrated; SA = Store Accessibility, RBE = Retail Brand Equity, SL = Store Loyalty (all for the focal retailer), CSA = Competitors' Store Accessibility, CRBE = Competitors' Retail Brand Equity.

Table C–6: Results of hypotheses testing

Source: Own creation.

Regarding the strength of the effects on store loyalty, H4a and H4b are supported. The retail brand equity of the focal retailer has a more positive and direct effect on its store loyalty (.634, p < .001) than does its store accessibility (.361, p < .001). This finding supports H4a. As the retail brand equity of competitors (-.226, p < .001) has a more negative and direct effect on store loyalty

towards the focal retailer than the store accessibility of competitors (-.034, $p < .05$) does, H4b is also supported. Thus, from the consumer perspective, store loyalty is primarily determined by the retail brand equity of the focal retailer and its competitors' rather than by the accessibility of stores.

With regard to the control variables, gender (.039, $p < .01$), DIY abilities (.061, $p < .001$), and closeness to a national road (.036, $p < .01$) significantly affect store loyalty. Thus, store loyalty is more positive for women, consumers who are experts in DIY, and stores that are close to a national road. The greater loyalty of women to the focal retailer's store is noteworthy. This finding may result from the less pronounced DIY experiences and abilities of women and, therefore, their diminished seeking behavior. However, a higher level of experience (DIY experts) also positively supports loyalty.

With respect to the objective competitive data concerning the effects for the focal retailer, the hypotheses are partly supported (see Table C–7). A high level of competitive intensity significantly decreases the effect of store accessibility on store loyalty (from .323, $p < .001$ for low competitive intensity to .228, $p < .001$ for high competitive intensity). This finding supports H5a. Thus, the store accessibility of the focal retailer is less important for securing the store loyalty of consumers if there are more shopping alternatives in an area. However, H5b and H5c are not supported. Thus, for the focal retailer's stores with high competitive intensity, there were no increases in the positive influences of retail brand equity on store loyalty or on store accessibility. A great distance to a retailer's next competitor significantly increases the effect of store accessibility on store loyalty (from .240, $p < .001$ for a short distance to the next competitor to .306, $p < .001$ for a long distance to the next competitor) and significantly decreases the effect of retail brand equity on store loyalty (from 1.035, $p < .001$ for a short distance to the next competitor to .769, $p < .001$ for a long distance to the next competitor). These findings support H6a and H6b. Thus, when the distance to the next shopping alternative for a specific product is greater, store accessibility is more important, and retail brand equity is less important for securing consumers' store loyalty towards the focal retailer. However, H6c is not supported. Thus, for the focal retailer's stores with longer distances to the next competitor, the positive influence of retail brand equity on store accessibility does not decrease.

	Competitive intensity			Distance to next competitor		
	low (≤2 competitors) N=2,205	high (>2 competitors) N=1,946	p[a]	short (<1.35 km) N=2,033	long (>1.35 km) N=2,118	p[a]
SA → SL	.323 ***	.228 ***	***	.240 ***	.306 ***	**
	(.401) ***	(.322) ***	**H5a**	(.294) ***	(.427) ***	**H6a**
RBE → SL	.851 ***	.898 ***	ns	1.035 ***	.769 ***	***
	(.595) ***	(.671) ***	**H5b**	(.704) ***	(.571) ***	**H6b**
RBE → SA	.729 ***	.707 ***	ns	.781 ***	.692 ***	ns
	(.409) ***	(.375) ***	**H5c**	(.434) ***	(.369) ***	**H6c**
CSA → SL	-.030 *	-.014 ns	ns	-.024 ns	-.021 ns	ns
	(-.037) *	(-.021) ns		(-.030) ns	(-.029) ns	
CRBE→ SL	-.309 ***	-.313 ***	ns	-.362 ***	-.277 ***	ns
	(-.209) ***	(-.248) ***		(-.250) ***	(-.208) ***	
CRBE→ CSA	.451 ***	.529 ***	ns	.622 ***	.381 ***	***
	(.250) ***	(.287) ***		(.345) ***	(.207) ***	
Covariates:						
Age	-.001 ns	.000 ns		-.001 ns	-.001 ns	
	(-.017) ns	(-.003) ns		(-.007) ns	(-.017) ns	
Gender	.084 ns	.127 **		.111 *	.069 ns	
	(.033) ns	(.055) **		(.045) *	(.028) ns	
DIY abilities	.056 *	.0993 ***		.091 **	.059 *	
	(.043) *	(.089) ***		(.074) **	(.049) *	
Closeness to freeway	-.035 ns	.101 *		.084 ns	-.054 ns	
	(-.013) ns	(.048) *		(.039) ns	(-.017) ns	
Closeness to national road	.093 *	.075 ns		.200 ***	-.007 ns	
	(.038) *	(.025) ns		(.081) ***	(-.003) ns	
Closeness to residential area	-.050 ns	.028 ns		.031 ns	-.071 ns	
	(-.019) ns	(.012) ns		(.014) ns	(-.027) ns	
Agglomeration	.012 ns	-.046 ns		-.113 *	.012 ns	
	(.005) ns	(-.022) ns		(-.046) *	(.006) ns	
R^2	.677 ***	.672 ***		.702 ***	.663 ***	

Structural model fits:
Competitive intensity: CFI .932; TLI .909; RMSEA .052; SRMR .037; $\chi^2(196) = 1{,}316.823$.
Distance to next competitor: CFI .929; TLI .905; RMSEA .054; SRMR .040; $\chi^2(197) = 1{,}372.049$.

Notes: *** p < .001, ** p < .01, * p < .05, ns: not significant; standardized coefficients in brackets; SA = Store Accessibility, RBE: Retail Brand Equity, SL = Store Loyalty (all for the focal retailer), CSA: Competitors' Store Accessibility, CRBE: Competitors' Retail Brand Equity.
[a] Significance in differences among groups.

Table C–7: Results of the multiple group analyses

Source: Own creation.

4. Discussion and Conclusions

4.1. Summary of Findings

In this study, we examine whether retail brand equity or store accessibility have a greater effect on store loyalty and how these effects are determined through local competition (both the subjective perceptions and objective characteristics of local competitors). This under-researched area is relevant because retailers view location as a core success factor, whereas studies indicate that location is declining in relevance (e.g., Bell, Ho, and Tang 1998) and that strong branding is becoming increasingly important (Grewal, Levy, and Lehmann 2004; Ailawadi and Keller 2004). With respect to schema theory, the results strongly support the argument that both a strong brand and a convenient, accessible store location determine the store loyalty of consumers', that retail brand has a stronger effect on store loyalty than store accessibility, and, furthermore, that a strong retail brand strengthens perceptions of location. Moreover, the strength of the effects of a focal retailer's brand and the accessibility of its stores on store loyalty is dependent on the competitive situation. The results differ substantially when an objective competitor's intensity and the distance to the next competitor are considered. Furthermore, the loyalty to a focal retailer is negatively influenced by the brand strength and location accessibility of the retailer's local competitors. These observations allow for three major theoretical implications and conclusions for managers.

4.2. Theoretical Implications

With respect to our first research question, which asks whether the retail brand equity or store accessibility of a focal retailer offers a greater contribution to store loyalty towards a focal retailer, the results show that retail brand equity (.634) influences store loyalty towards the focal retailer more strongly than store accessibility (.361) does. We will now discuss two conclusions in greater depth.

First, we can conclude that a strong retail brand drives store loyalty almost twice as strongly as a convenient store location does; this result corresponds to the research of James et al. (1976), who found that a strong retail brand can be used to overcome the uncertainties that result from growing local competi-

tion. This conclusion also supports the findings of Clark and Rushton (1970) and their proposition regarding the gravitational pull of a strong retail brand.

Second, convenient and accessible store locations positively influence loyalty, even during periods of high mobility. However, a strong brand induces customers to drive longer distances to reach stores and thus positively influences store accessibility. The effect of retail brand equity on store accessibility is reliable, as this outcome was observed for both the focal retailer (.385) and the competitors (.390). This finding both underlines the importance of the relationship between brand and location and supports the conceptualizations of Grewal et al. (2004; 2009), who found that a retail brand affects perceptions of retail attributes, including location. The alternative model, in which location determines retail brand equity, shows weaker results. Moreover, we do not find hierarchical effects among the focal retailer's 30 stores with regard to the store loyalty of consumers, but significant differences among certain groups of stores may exist. Thus, further research could, for example, investigate the effects with respect to focal retailer store groups with low or high levels of store loyalty.

With respect to our second research question regarding the extent to which the retail brand equity and store accessibility of competitors affect store loyalty towards a focal retailer, we find that the retail brand equity of competitors influences store loyalty towards the focal retailer more negatively than the store accessibility of competitors does. Thus, we conclude that the stronger effect of retail brand equity is also stable, as this effect occurred for the brand equity of both the focal retailer and the competitors. Furthermore, we note that a deeper understanding of consumer behavior can be obtained if the perceptions of local retailers (both a focal retailer and its competitors) are viewed separately rather than in comparison with one another (Hartman and Spiro 2005).

In response to our third research question, the objective characteristics of local competition influence the effects of retail brand equity and store accessibility on store loyalty towards the focal retailer, we discuss two major conclusions below.

First, a long distance to the next competitor increases the importance of store accessibility as a driver of the store loyalty of consumers but decreases the

importance of retail brand equity (see the calls of Peterson and Balasubramanian 2002; and Grewal, Levy, and Kumar 2009). The data provide similar results for a situation characterized by low competitive intensity. The enhanced importance of store locations in both situations of low competitive intensity and situations of great distance to the next competitor clearly indicates the convenience orientation of consumers (i.e., they are more loyal to a convenient, accessible retailer and prefer not to drive greater distances). However, retailers should not rely solely on accessible store locations as a competitive advantage because a competitor could build a new store nearby. Thus, a retailer should not neglect necessary investments in its own stores, particularly investments in building a strong retail brand, because retail brand equity is still a strong determinant of the store loyalty of customers.

Second, we found that retail brand equity is the primary driver of store loyalty in all objective competitive situations. However, in different competitive situations, the direct effects of retail brand equity on store loyalty vary significantly, although the supporting effects on store accessibility are stable in all situations. Thus, this supporting effect on store accessibility does not depend on competition. Hence, retail brand equity may always support perceptions of local stores, the accessibility of store locations and other store attributes. We can conclude that a strong retail brand is the primary attraction for consumers (Craig, Ghosh, and McLafferty 1984).

4.3. Managerial Implications

This study provides managerial implications by highlighting the differing effects of retail brand equity and store accessibility on store loyalty in varying competitive situations. In practice, although expansion managers spend a significant amount of time searching for favorable store locations, consumer perceptions of retail brand equity always drive consumer behavior more strongly than store accessibility does. Thus, although a convenient store location is still a relevant driver of long-term success (Ghosh and Craig 1983), a retail brand is more important for store loyalty and, in turn, retailer success. Consequently, a retail brand is an appropriate asset that acts as a competitive advantage in situations of intensifying competition (James, Durand, and Dreves 1976).

However, we believe that not all retailers devote adequate attention to this fact. Consequently, unlike well-known brand manufacturers, fewer retailers are providing professional retail brand management. Of course, retail branding is more complex (Ailawadi and Keller 2004), highly frequented locations are expensive, and “the disadvantages of a poor location are extremely difficult to overcome” (Craig, Ghosh, and McLafferty 1984, p. 5). However, the favorability of easily accessible locations (especially locations in which the next competitor is far away) can easily be diminished by the new store openings of a competitor. Thus, chain store retailers will profit from a strong and centrally managed retail brand.

5. Limitations and Further Research

A better understanding of the effects of retail brand equity and convenient, accessible store locations on consumer behavior requires further research because of the limitations of the current study.

Because we collected data from one retail sector (from the self-selected locations of only one focal retailer without standardized store layouts and from its local competitors), this study is limited in scope. Broadening the database would mitigate these limitations and allow for further conclusions. For example, the actual distances from customer homes or offices to an evaluated store could be studied (Gauri, Trivedi, and Grewal 2008) because it would be worthwhile to analyze whether store accessibility or real distances influence store loyalty towards a focal retailer in different ways. In addition, we were obliged to employ a reduced version of the scale developed by Verhoef et al. (2007) for retail brand equity; thus, the validity of this study may be limited. Methodologically, a dataset that allows for a multilevel analysis would enable the direct use of objective variables rather than a multiple group analysis and the inclusion of further measures for each observed store (e.g., financial performance). Furthermore, this study focused on only one facet of store location (namely, its convenient accessibility) and on retailers within the same type of business. Thus, further analysis can extend these conclusions by, for example, considering a more general view, such as the attractiveness of a location, or focusing on the effects by means of agglomerations with retailers in other sec-

tors or nearby shopping centers (Teller and Reutterer 2008). Such analyses may assist in differentiating between the reduced and compensated effects of location on consumer behavior. Finally, our results may indicate a type of reciprocal relationship between retail brand equity and store location. Addressing such bidirectional relationships, which are seldom analyzed in retailing, may be advantageous in further research (for methodological issues, see, e.g., Nguyen and Leblanc 2001; Kwon and Lennon 2009). However, we believe that the dominance of retail brand equity will persist.

Regarding future research, a high priority should be given to the inclusion of additional variables concerning consumer behavior, such as store and brand familiarity, because both determine the information processing in memory (Cowley and Mitchell 2003; Inman, Winer, and Ferraro 2009; Benedicktus et al. 2010) or self-confidence (see the call of Schenk, Löffler, and Rauh 2007; and Pan and Zinkhan 2006, which mention self-confidence as an important but less observed factor in this context). In conjunction with the chosen sector, self-reported DIY abilities as a sector-specific proxy for self-confidence may be an interesting topic to research, as the results of the corresponding control variable are positively significant in all of the analyzed models.

D. Study 3: International Transfer and Perception of Retail Formats: A Comparison Study in Germany and Romania

1. Introduction

Retailers have been engaging in aggressive internationalization, first into developed countries and then into emerging countries (Swoboda, Zentes, and Elsner 2009). In particular, grocery retailers adapt their offers abroad (Gamble 2010; Goldman 2001) to position their chains as strong brands in the minds of consumers. However, retailers primarily use preferred formats for global expansion. For example, German Aldi engages in expansion abroad using its discount format, and French Carrefour prefers to expand using its strongest format, the hypermarket. Retail formats represent a retailer's product mix, constitute competing categories that are designed to match the needs of consumers (González-Benito, Muñoz-Gallego, and Kopalle 2005), and are considered generic positioning profiles (Dawson 2000). These profiles are based on format characteristics known as core attributes, such as low prices in the case of discounters or broad assortments in the case of hypermarkets (Tordjman 1994). Retailer expansion occurs within the boundaries of these core attributes, and these boundaries determine transfer decisions. Thus, adaptation is determined by the international strategy and environment within a country as well as the chosen format. Therefore, we believe that core attributes equally determine the retail brand positioning of a specific format in foreign markets. If this assumption is upheld by empirical evidence, then retail internationalization indeed occurs with the strong adaptation of offers but within the boundaries of core attributes that determine consumer perceptions. This issue is relevant for the understanding of retailer behavior in transferring offers abroad and particularly for the understanding of consumer preferences and the market success of retailers.

Past research has shown that from a strategic perspective, retailers transfer store attributes differently, some of which are adapted and some of which are standardized (Goldman 2001), and that successful grocery retailers realize high degrees of local responsiveness (Swoboda, Elsner, and Morschett 2012). However, researchers have also found that successful retailers tend to use a

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format for international expansion that is familiar to them, that determines local positioning, and that is innovative for local customers (Etgar and Rachman-Moore 2008; Gielens and Dekimpe 2001). From the demand perspective, retail store attributes are known to be essential for customer store choices in spatial competition (for an overview, see Cleeren et al. 2010) and for store image (for an overview, see Chowdhury, Reardon, and Srivastava 1998). Combining the strategic and consumer perspectives, Burt and Mavrommatis (2006), argued that the positioning of a retail chain is similar across countries, whereas the perceptions of retailers vary. However, these findings do not describe the role that core format attributes play in retail brand building, which is an important determining factor of local consumer response (Pan and Zinkhan 2006; Finn and Louviere 1996). For retailers that transfer preferred formats to host countries but are forced to be locally responsible, knowledge regarding the role of core format attributes in brand positioning is important, as their role may differ from the host country context, particularly in emerging, distant countries (Evans and Mavondo 2002), and different consumer perceptions may jeopardize market success.

Thus, the aim of this study is to analyze the following research questions. Are the core attributes of a particular retail format perceived similarly by customers in developed and emerging countries? Do the core attributes determine the retail brand equity equally within a specific format in both developed and emerging countries?

Two contributions are offered to the current literature. First, we conceptualize the relationship between core attributes and retail brand equity as well as store loyalty (referring to the calls of Peterson and Balasubramanian (2002) and Puccinelli et al. (2009)) by investigating the effects of the core attributes of a format in a comparison of Germany (a developed country) and Romania (an emerging European country dominated by western European retailers). Prior research has provided information on the format transfer and image of retailers in host countries but has largely neglected discussing the role of core attributes in the positioning of strong retail brands to further our understanding of consumer responses to retail formats in emerging and developed countries. Second, studying the relationships between core attributes and retailers as strong brands in developed and emerging countries, we explore beyond the

argument of whether the adaptation or replication of the core attributes of retailers is relevant for format success. We also contribute to the scant literature on the foreign market servicing of service firms. The core attributes that are examined in this study are specifically tailored to the characteristics of traditional retail formats, discounters, supermarkets, and hypermarkets. However, although these core attributes are commonly used in retailing, they are not exclusive to this sector. Hence, we consider an alternative rationale that is discussed in this study to be applicable to certain service firms, and we believe that our findings may be relevant for future studies that address the transfer of core attributes to a business model abroad.

In the following section, we first address relevant research streams and derive hypotheses regarding the perceptions of core attributes and their effects on retail branding to form the basis for two empirical studies of traditional grocery formats in Germany and Romania. Subsequently, the results are discussed. Finally, the paper concludes by discussing limitations and directions for further research.

2. Retail Format Transfer and Perception

International retailers differ considerably from most international manufacturers (for differences regarding management, marketing and finance, see Currah and Wrigley (2004) and Dawson (1994)). In particular, grocery retailing is the largest retail sector, is regarded as multi-domestic, employs international strategies with direct, frequent contact with consumers and with high local responsiveness (Bianchi and Ostale 2006; Swoboda, Elsner, and Morschett 2012), transfers retail formats from a home country to a host country (Goldman 2001), and balances centralized and decentralized decision making (Dawson 1994). Relatively high levels of investments are required for the internationalization of grocery retailers, such as investments in the development of store networks and local supply chain processes (Swoboda, Foscht, and Cliquet 2008) that represent a high ratio of total retail costs (Einarsson 2008) and that are specific to a particular format (e.g., tight in the case of discounters). Finally, formats are retail products that are offered in a relatively homogeneous store network and offer a range of retail-specific marketing-mix

instruments, such as assortment, store layout, or location (Currah and Wrigley 2004). Two relatively unconnected streams of research are relevant for our study: a strategic perspective of format transfer and a consumer perspective of format perception.

The transfer of retail formats is linked to combinations of market offers and retail knowledge (i.e., processes and firm culture) (Hollander 1970; Kacker 1985; Kacker 1988), whereas market offers determine consumer responses and market success. These offers have been analyzed in several ways: first, by comparing foreign and domestic retailers (Goldman 2000); second, by demonstrating that international retailers vary their market offers over time because of market-based learning (Segal-Horn and Davison 1992; Jonsson and Foss 2011); and third, by focusing on the degrees of standardization and adaptation of various retail attributes, such as prices and assortments (e.g., Fam and Yang 2006; Wigley and Chiang 2009). However, small-N research has particularly emphasized that the adaptation of offers is critical for retailer success abroad (e.g., Currah and Wrigley 2004; Bianchi and Ostale 2006; Evans, Mavondo, and Bridson 2008). Few scholars have shown that some elements of a format are transferred in an adapted form, whereas other elements are transferred unchanged (e.g., McGoldrick 1998; Goldman 2001; Huang and Sternquist 2009). Brown and Burt (1992) and Segal-Horn and Davison (1992) have argued that retailers can standardize some instruments relatively easily (e.g., store layout), whereas other instruments must be adapted (e.g., assortment). We add to this argument and assume that the transfer of certain store attributes is related to a particular retail format in that the adaptation of retail attributes proceeds within the boundaries of a specific format and its core attributes.

Consumer perceptions of or preferences for retail formats are analyzed by scholars focusing on inter- and/or intra-format spatial competition (e.g., Bell, Ho, and Tang 1998; Bhatnagar and Ratchford 2004; Popkowski Leszczyc, Sinha, and Sahgal 2004; Singh, Hansen, and Blattberg 2006; Gijsbrechts, Campo, and Nisol 2008; Cleeren et al. 2010). For example, such studies provide comparisons between consumer store choices of supermarkets, hypermarkets, and discounters based on attributes that include assortment, service, and price (e.g., Solgaard and Hansen 2003) or provide positioning

options for retailers using price, convenience, and quality (Morschett, Swoboda, and Schramm-Klein 2006). Scholars observing different countries have addressed consumer expectations of retail attributes in Europe (White and Absher 2007) and in Asia (McGoldrick and Ho 1992; Chaney and Gamble 2008) and the positioning of domestic and foreign retailers or formats, such as discounters within a country (Newman and Patel 2004; Denstadli, Lines, and Grønhaug 2005). Few studies have conducted cross-country comparisons. Two studies examined customer perceptions of the retailer Marks & Spencer in France and Spain (McGoldrick 1998) and in the UK and Spain (Burt and Carralero-Encinas 2000). These studies revealed differences and similarities in perceptions and concluded that these factors must be managed and considered when operating in those markets. Burt and Mavrommatis (2006) considered the perceptions of the store image of a chain and found that the image of discounters differs between Spain and Greece but that the position of a chain is equal if local competitors are considered. These studies share the view that there exists a need for adaptation and thus for the analysis of consumer expectations and perceptions in foreign countries. However, these studies frequently focused on one specific retail chain or format and considered only developed countries.

In sum, two research gaps emerge: the adaptation of core attributes abroad is assumed to occur within the boundary conditions of those attributes that are characteristic of a format. These attributes are rooted in spatial competition research, for example, as the core attributes of a format are especially important for success in inter-format competition. However, there is a lack of knowledge on the nature of core attributes in developed western European markets and in emerging eastern European markets. Both types of countries are important; for example, western European retailers prefer to expand from their saturated home markets into eastern European countries much more frequently than into Asian countries. Second, studies on the positioning of retailers across countries have not answered the question of how these attributes (apart from the perceptions of such attributes) determine retailer positioning and success abroad. In other words, which of these store attributes strengthen the ability of retailers to build strong retail brands and to enhance consumer patronage?

3. Conceptualization and Hypothesis Development

The basic conceptual model (see Figure D–1) draws from the stimulus-organism-response (S-O-R) framework (Russell and Mehrabian 1976; Thang and Tan 2003), in that consumer perceptions of specific retail attributes (stimulus) influence retail brand equity (organism) that in turn influences customer's store loyalty (response). With respect to schema theoretical reasoning and associative network theory consumers refer to different information that are activated in memory (considering spreading activation please refer to Anderson 1983) when they have to decide where to (re)purchase (Marshall 1995). As not only abstract retail brand related information come into customers mind facing such a decision, but also concrete store relevant information emergence, customer perceptions of retail attributes do also have an influence for store loyalty. Thus, our basic conceptual model comprises three constructs: retail attributes, retail brand equity, and store loyalty. Retail attributes, or marketing instruments, are known to represent the position of a retail company and a retail format in the minds of consumers (Martineau 1958a). These attributes are frequently conceptualized as antecedents of retail brand equity (Yoo, Donthu, and Lee 2000; Ailawadi and Keller 2004; Jinfeng and Zhilong 2009), as are the effects of retail brand equity on store loyalty (Pan and Zinkhan 2006; Finn and Louviere 1996). Thus, our basic conceptual model is based on previous research. However, we conceptualize the relationship between retail attributes, retail brand and store loyalty for three formats by comparing two countries (see Figure D–1). The underlying reasoning is that core attributes characterize consumer perceptions of formats, especially in contexts of inter-format competition (Cleeren et al. 2010) and that core attributes determine the retail brand building process in both developed and emerging countries. If such a mechanism is sustainable, then the core attributes of a particular format should be equally relevant for establishing a strong retail brand in developed and emerging countries.

In the following, the perceptions of format-specific attributes are conceptualized, followed by the conceptualization of format-specific attributes in determining retail brand equity within a specific retail format. Finally, the influence of retail brand equity on store loyalty is conceptualized. The underlying assumptions are that the perceptions of each format will be similar in developed

and emerging countries and that similar attributes determine the position of a format as a strong retail brand in both types of countries.

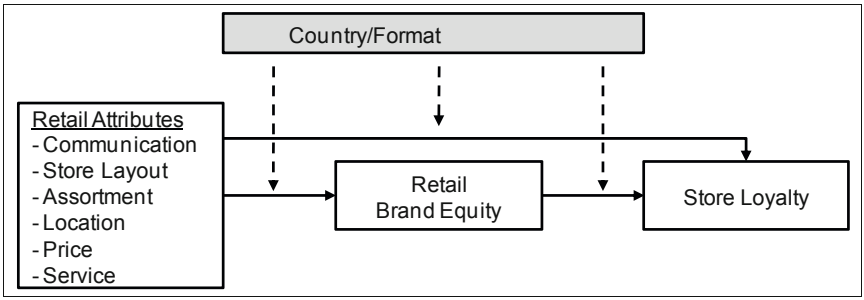

Figure D–1: Conceptual framework
Source: Own creation.

3.1. Perceptions of Format-specific Attributes

Retail attributes refer to the marketing instruments that retailers use to design market offers and influence consumers (e.g., McGoldrick 1998; Burt and Mavrommatis 2006). Various attribute inventories have been used to characterize image dimensions of retail chains or retail firms (e.g., Martineau 1958a; Fisk 1961; Steenkamp and Wedel 1991; Chowdhury, Reardon, and Srivastava 1998), to characterize antecedents of retail brand equity (Jinfeng and Zhilong 2009; Ailawadi and Keller 2004; Yoo, Donthu, and Lee 2000), or to characterize retail formats in spatial competition (Bhatnagar and Ratchford 2004; Cleeren et al. 2010; Levy and Weitz 2012). To characterize formats in spatial competition, researchers have primarily focused on price (high vs. low) and assortment choice (limited vs. extended) (González-Benito 2001; see also Tordjman 1994; Burt and Sparks 1995), although other studies have also analyzed other attributes and added single attributes, such as store size, service, or location (Zielke 2010; Solgaard and Hansen 2003; Cleeren et al. 2010; Fox and Sethuraman 2010). Because these variables are highly subjective, the literature lacks a standardized definition (González-Benito 2005); furthermore, other attributes, such as store layout and communication, are also relevant to consumer preferences for stores with an appealing atmosphere or informative promotions. Research on store image has often differentiated a broad range of attributes, such as location, assortment, price,

service, store layout, and communication. Each of these attributes is known to determine consumer behavior (e.g., Seiders, Simonides, and Tigert 2000; Oppewal and Koelemeijer 2005; Binkley and Bejnarowicz 2003; Siu and Chow 2004; Vrechopoulos et al. 2004; Gedenk and Neslin 2000). Arguing that this broader range of attributes determines consumer perceptions of a particular format, we conceptualize the core attributes of discounters, supermarkets, and hypermarkets below.

European discounters with roots in Germany are frequently characterized by everyday low pricing, limited product choice (Tordjman 1994; Burt and Sparks 1995; González-Benito 2005), and small stores with functional environments and no services (Zielke 2010; Cleeren et al. 2010; Solgaard and Hansen 2003). From a consumer perspective, the core attribute characterizing discounters as distinct from other formats is low pricing. Furthermore, Cleeren et al. (2010) recently noted that discounters tend to locate their stores near consumers and increasingly offer convenient and accessible locations within their broadly increasing store networks (Morschett, Swoboda, and Schramm-Klein 2006). However, because low prices represent the relevant characteristic of discount formats, retail firms will persist in using relatively low prices when transferring discount formats abroad; therefore, consumer perceptions should also be linked to low pricing as a core attribute of discounters across countries. Therefore, this study posits that the price as a core attribute will be internationally adapted but in relation to the prices of local competitors; thus, the price perceptions of discounters in developed and emerging countries should be dominant and perhaps equally perceived in developed and emerging countries.

European supermarkets are frequently viewed as having average prices (high-low pricing) with an average assortment size (Tordjman 1994; Burt and Sparks 1995; González-Benito 2005; Cleeren et al. 2010). This description also holds for the characterization of supermarkets in the U.S., in which supermarkets also present a pleasant store atmosphere and a modest service offering and operate as medium-sized stores in comparison with discounters or hypermarkets (Levy and Weitz 2012; González-Benito 2005). Supermarket retailers use broad store networks to ensure convenient store access for customers. Thus, the core attributes of supermarkets are easily accessible locations, large assortments (considering assortment breadth) and some services (Solgaard and Hansen

2003). If these three attributes are relevant characteristics of supermarket formats, then retail firms that expand their supermarket format abroad will persist in using relatively broad and fresh assortments, convenient locations, and service skills to assure their positioning in an inter-format competition context abroad. We posit that the core attributes of location, assortment, and service may be adapted but are preferably used to determine the perceptions of supermarket chains in developed countries and emerging countries.

European hypermarkets, which have roots in France (Levy and Weitz 2012), have a price range that falls between those of discounters and supermarkets and offer an extended choice of products because of their large assortment size (considering breadth and depth) in large stores and car-oriented locations (Tordjman 1994; Burt and Sparks 1995; González-Benito 2005; Cleeren et al. 2010; Solgaard and Hansen 2003). The store layout of hypermarkets is sometimes experience oriented (Floch 1988). Similar descriptions also exist for the characterization of supercenters in the U.S. (Levy and Weitz 2012), which are larger and less experience oriented. However, the core format attributes include a large assortment, which allows for one-stop shopping (Morschett, Swoboda, and Schramm-Klein 2006); large store size, which allows for an experience-oriented layout (Floch 1988) or an appealing store atmosphere (Levy and Weitz 2012); and services, which could be regarded as broader than those of supermarkets as a result of the specialized stores and services units within a hypermarket store. If these attributes are relevant characteristics of hypermarket formats, then retail firms that expand their hypermarket format abroad will persist in using those attributes to influence consumer perceptions concerning broad assortment, store layout, and service. These core attributes may be adapted, but they should be characteristically linked with the perception of hypermarkets in both developed countries and emerging countries.

These arguments lead us to develop the following hypothesis:

H1. Consumer perceptions of core format attributes do not differ between emerging and developed countries for the following attributes: (a) price for discounters; (b) assortment, location, and service for supermarkets; and (c) assortment, store layout, and service for hypermarkets.

3.2. Format-specific Attributes as Antecedents of Retail Brand Equity

We define retail brand equity as the associations of a retailer with a strong, unique, and attractive retail chain or retail brand in the mind of consumers (Verhoef, Langerak, and Donkers 2007, p. 100). Retail brand equity refers to the chain level of a retailer (Burt and Davies 2010) and thus corresponds to the 'Gestalt view' of a retail chain or format as a brand (Keaveney and Hunt 1992). This concept differs from Martineau's (1958a) understanding of store image as a sum of store-level associations (Ailawadi and Keller 2004) and from store attractiveness in spatial competition research, which is often used referring to store size (Nakanishi and Cooper 1974; Craig, Ghosh, and McLafferty 1984; González-Benito 2005). Scholars have conceptualized the role of retail brand equity in consumer perceptions of various values offered by a retail chain (Grewal, Levy, and Lehmann 2004; Grewal and Levy 2009), and store attributes are known as antecedents to retail brand equity (Yoo, Donthu, and Lee 2000; Ailawadi and Keller 2004; Jinfeng and Zhilong 2009). Because it is important for foreign retailers to establish their chains and stores as strong brands in foreign countries, it is appropriate to refer to retail brand equity when considering a format-specific perspective. A strong retail brand allows retailers to expand their store networks, strengthen intangible assets and performance (Jinfeng and Zhilong 2009; Brown et al. 2006), and attract consumers (e.g., Nguyen and Leblanc 2001). However, we acknowledge that differences between strong, unique, and attractive brands exist within particular formats (e.g., between Auchan and Carrefour as two hypermarket formats), although these differences are not considered in this study. Rather, we assume that the core attributes of particular formats determine retail brands within this specific format similarly in developed and emerging countries.

The strength, uniqueness, and attractiveness of the discount format is likely to be primarily based on price as the core attribute of this particular format (González-Benito 2005; Solgaard and Hansen 2003). Further attributes, such as assortment, store layout (Cleeren et al. 2010; Solgaard and Hansen 2003) and location (Morschett, Swoboda, and Schramm-Klein 2006; Cleeren et al. 2010), may or may not affect retail brand equity within the discount format in developed and emerging countries. As noted previously, growing store networks in home markets bring discounters closer to customers (Morschett,

Swoboda, and Schramm-Klein 2006; Cleeren et al. 2010), and discounter locations may increasingly explain the preferred store choices of customers (Fox and Sethuraman 2010). However, although communication is viewed as contributing to enhancing retail brands (Sjödin and Törn 2006) and both location and communication are gaining importance for discounters, they are currently not regarded as core attributes in determining the retail brand equity of discount chains. Thus, we conclude that retail brands within the discount format are largely determined by the core attribute of price in both developed and emerging countries.

With respect to brand building retail attributes for supermarkets, it is conceivable that the core attributes of service, location and assortment will strongly determine retail brand equity within supermarkets. The service and merchandise quality of supermarkets are known to influence store loyalty intentions toward supermarket chains (e.g., Sirohi, McLaughlin, and Wittink 1998), and convenient accessible store locations are known to influence customer store choices and are relevant in format competition (Solgaard and Hansen 2003; Morschett, Swoboda, and Schramm-Klein 2006; Cleeren et al. 2010; Fox and Sethuraman 2010). In contrast, because the pricing (Solgaard and Hansen 2003; Cleeren et al. 2010), store layout, and communication of supermarkets are not regarded as core attributes, these factors may not act as brand determinants from a consumer perspective. Thus, we conclude that assortment, location, and service have the strongest effect on the retail brand equity of supermarkets and that these core attributes may equally drive retail brand equity within supermarkets in developed and emerging countries.

The underlying consideration of core attributes for hypermarkets leads us to the conclusion that assortment (González-Benito 2005), service offerings (Solgaard and Hansen 2003) and perhaps large stores and appealing store layouts (Floch 1988) particularly affect retail brand equity within hypermarket chains. The large stores of hypermarkets (Fernie and Pierrel 1996) are sometimes regarded as contributing to an average or above average store atmosphere (Levy and Weitz 2012). Because price, car-oriented location, and communication are not considered to be core attributes that are specific to hypermarkets, these attributes may not act as strong brand determinants within hypermarkets. Thus, concerning hypermarkets, we hypothesize that the core format attributes of assortment,

service, and store layout are equal determinants of the brand-building process in developed and emerging countries.

In sum, we hypothesize as follows:

H2. The core format attributes identically influence retail brand equity within the specific format in emerging and developed countries, particularly the following: (a) price determines the retail brand equity of discounters; (b) assortment, location, and service determine the retail brand equity of supermarkets; and (c) assortment, store layout, and service determine the retail brand equity of hypermarkets.

3.3. Retail Brand Equity and Store Loyalty

Store loyalty is defined as the intention and readiness to repurchase at a store (Evanschitzky and Wunderlich 2006; Oliver 1999), which describes conative loyalty and forms the penultimate stage in loyalty formation (Harris and Goode 2004). Past studies in western countries (Pan and Zinkhan 2006; Chaudhuri and Ligas 2009) and in emerging markets (Zhou and Belk 2004; Alden, Steenkamp, and Batra 2006; Jinfeng and Zhilong 2009) underline that retail brand equity positively affects store loyalty or patronage towards a retailer. These relationships are also likely to be observed in format-specific contexts, as a retail brand within a particular format is determined by specific core attributes, and the constructed retail brand equity in turn influences store loyalty within a specific format. The reasoning is that a consumer who perceives a discount format, for example, as being a strong, unique, and attractive retail chain or brand will be more loyal to this format than to other formats. Therefore, a format-specific retail brand may function as identical drivers of store loyalty for both developed and emerging countries. Therefore, we propose the following hypothesis:

H3. The relationship between retail brand equity and store loyalty within each format (i.e., for (a) discounters, (b) supermarkets, and (c) hypermarkets) is identical in developed and emerging countries.

4. Empirical Study

4.1. Context and Sample

The sample selection procedure is presented below. First, the countries and cities in the respective countries were selected; second, the consumer sample was developed.

We chose Germany to represent a developed country and Romania to represent an emerging country for theoretical and practical reasons. Germany was chosen because it is a large European country with nearly 82 m inhabitants and approximately 38,000 Intl. $ GDP per capita (International Monetary Fund 2012). Furthermore, Germany is known as one of the most competitive countries in the grocery retail sector, with the highest concentration in the grocery sector, the highest amount of retail space per capita in the world, and the highest market shares of discounters (43.4% in 2011), whereas supermarkets and hypermarkets have market shares of 24.8% and 23.1%, respectively (GfK 2012; Cleeren et al. 2010; Planet Retail 2011). Trier was chosen as the city for the German field study because it is a typical medium-sized city in Germany with approximately 240,000 inhabitants in the region and because of the presence of exclusively German grocery retailers. In addition, there are no other medium-sized cities within a one-hour driving distance, which enables a certain control for grocery consumer streams of inhabitants in the city. Trier has 41 discount stores, 50 supermarkets, and 13 hypermarkets, and these stores belong to five discounter, three supermarket, and five hypermarket brands. Romania was chosen because it represents a medium-sized emerging European country with nearly 22 m inhabitants and approximately 12,000 Intl. $ GDP per capita (International Monetary Fund 2012). Romania has a relatively low concentration rate in the modern grocery retail business, as the top five retailers have a market share under 30% of the total volume, compared with approximately 70% in Germany, and the local grocery retail market is strongly dominated by western European retail chains and formats, despite the presence of a few small local and mostly neighborhood store chains (e.g., Oncos reports less than 0.5 bn. EUR total sales and is the largest chain) (Planet Retail 2011). The traditional grocery formats had market shares of 21% (discounters), 30% (supermarkets) and 49% (hypermarkets) in 2011 considering the modern retail formats (Metro and GfK 2012). The city of Cluj was chosen for the same

reasons that Trier was chosen. Cluj is a medium-sized city with approximately 290,000 inhabitants, which is slightly greater than that of Trier; there are no other medium-sized cities within a one-hour driving distance, and all three retail formats are present. Cluj has nine discount stores, 33 supermarkets, and five hypermarkets; the first western European grocery retailer entered in 1999, and the last retailer entered in 2006. In total, the stores belong to three discounter, four supermarket, and four hypermarket brands.

To develop the consumer samples in Germany and Romania, we used a cross-sectional design and randomly selected inhabitants at the center of each city over a period of two weeks. We created a quota sampling procedure based on information provided by the national registration office concerning age and gender. After the pre-tests were administered, the survey was conducted by trained interviewers using a standardized questionnaire and face-to-face-interviews. Every third person who passed the interviewers in the city center and conformed to the sample quota was asked to participate (similar to Orth and Holancova 2004). Each respondent was first asked to list the local grocery retailers with which he or she was familiar. Then, the respondents were asked to name three different grocery retailers at which they frequently shop (Schiffman, Dash, and Dillon 1977). Subsequently, the respondents were asked about one specific retail store, which was randomly chosen among the three retailers mentioned to be the retailer that would be evaluated in the following interview. There was no assessment of the choice of retail formats. Considering the Romanian sample, we included only chains that belong to western European retailers to ensure that our results are not biased through domestic retail chains because we wanted to account for the similarity of western European grocery retail formats. Against this background, we collected data from a total of 2,531 respondents. After the detection of outliers (22 in the German sample and 50 in the Romanian sample) according to Mahalanobis' D^2 divided by the number of variables involved (Hair et al. 2010), 2,459 cases remained, including 919 respondents in Germany and 1,540 respondents in Romania. The realized sample distribution satisfied the planned quota sample (see Table D–1).

	Realized quota sample			Planned quota sample		
Age groups	Male %	Female %	Total %	Male %	Female %	Total %
			Germany (N = 919)			
Age 15 to 24	7.7	10.7	18.4	6.9	6.6	13.5
Age 25 to 49	24.8	24.2	49.0	21.5	20.7	42.2
Age 50 to 64	8.4	10.5	18.9	10.6	10.7	21.3
Age above 64	6.4	7.3	13.7	9.6	13.4	23.0
Total	47.3	52.7	100.0	48.6	51.4	100.0
			Romania (N = 1,540)			
Age 15 to 24	9.4	10.8	20.2	9.0	8.6	17.6
Age 25 to 49	25.5	21.0	46.5	22.1	21.6	43.7
Age 50 to 64	10.5	11.0	21.5	10.0	11.0	21.1
Age above 64	4.9	6.9	11.8	7.2	10.4	17.6
Total	50.3	49.7	100.0	48.3	51.7	100.0

Table D–1: Sample characteristics

Source: Own creation.

In Germany, 303 respondents evaluated a discounter, 305 respondents evaluated a supermarket, and 311 respondents evaluated a hypermarket; among them, stores of six discounters, three supermarkets and five hypermarkets were rated. In Romania, 434 respondents evaluated a discounter, 347 respondents evaluated a supermarket and 759 respondents evaluated a hypermarket; among them, stores of four discounters, four supermarkets and four hypermarkets were rated.

4.2. Measurement

All measurements are based on previous studies (see Table 2) and were surveyed using seven-point Likert-type scales (from 1 indicating “strongly disagree” to 7 indicating “strongly agree”). Store loyalty is measured by adapting the scales of Chaudhuri and Holbrook (2001) and Harris and Goode (2004) with three items. We measured retail brand equity according to the scale of Verhoef et al. (2007), who used four items (strong, well-known, favorable and unique brands) and referred to store levels that were similar to those used by Jinfeng and Zhilong (2009) and Jacoby and Mazursky (1984). Because different inventories of retail attributes have been provided by scholars since the works of Martineau (1958a) and Fisk (1961), we decided to measure six retail attributes according to several prior sources (Table D–2).

Construct	Item		Source
Store Loyalty	SL1	I am likely to visit this store the next time I buy groceries.	Adapted from Chaudhuri and Holbrook (2001); Harris and Goode (2004)
	SL2	I intend to continue purchasing at this store.	
	SL3	I will always choose this store over competing retailers.	
Retail Brand Equity	RBE1	This store is a well-known brand.	Verhoef, Langerak, and Donkers (2007); Keller (1993)
	RBE2	This store is a strong brand.	
	RBE3	This store is a unique brand.	
	RBE4	This store is an attractive brand.	
Communication	Comm1	I often see advertisements for store X.	Adapted from Yoo, Donthu, and Lee (2000); Hansen and Deutscher (1979)
	Comm2	All in all, store X's campaigns are very good.	
	Comm3	Store X's advertising is informative.	
	Comm4	Store X's advertising is appealing.	
Store Layout	StLay1	Store X is a nice place to shop.	Adapted from Chowdhury, Reardon, and Srivastava (1998)
	StLay2	I can find my way around easily at store X.	
	StLay3	It is convenient to shop at store X.	
	StLay4	The appearance of store X is appealing.	
Assortment	Ass1	Store X has a good variety of products.	Adapted from Chowdhury, Reardon, and Srivastava (1998)
	Ass2	Everything I need is at store X.	
	Ass3	Store X always sells high-quality products.	
Location	Loc1	Store X is in an optimal location.	Adapted from Oppewal and Timmermans (1997); Anselmsson (2006)
	Loc2	The location of store X is easy to reach.	
	Loc3	I can get to store X quickly.	
Price	Pri1	The prices of store X are fair.	Adapted from Grewal et al. (1998); Yoo, Donthu, and Lee (2000)
	Pri2	The prices of store X are constantly good.	
	Pri3	Store X has a good price-quality ratio.	
	Pri4	Prices at store X are lower than the prices of competing retailers.	
Service	Serv1	The service at store X is very good.	Adapted from Sirdeshmukh, Singh, and Sabol (2002)
	Serv2	The employees at store X are friendly and helpful.	
	Serv3	The employees at store X treat my requests with respect.	
	Serv4	The employees at store X are well trained and qualified.	

Notes: SL = Store Loyalty; RBE = Retail Brand Equity; Comm = Communication; StLay = Store Layout; Ass = Assortment; Loc = Location; Pri = Price; Serv = Service.

Table D–2 Measurements

Source: Own creation.

We applied the translation-back-translation technique to ensure semantic equivalence (Hult et al. 2008). A bilingual market researcher translated the scales into Romanian, and a bilingual graduate student then translated the scales back into German. We compared the two versions and corrected the Romanian version until the back-translated German version matched the original German version. The scales were also pre-tested with two consumer focus groups and quantitatively tested using a questionnaire (N = 160). The quantitative pre-test provided satisfactory values for reliability and validity.

We also included covariates in the study. Because consumer behavior may be influenced by gender (0 = male, 1 = female) and age (Schenk, Löffler, and Rauh 2007), we controlled for both variables. To exclude any biases through unobserved firm heterogeneity (Beck, Brüderl, and Woywode 2008; Snijders and Bosker 1999), we included 26 firm dummy variables to control for any higher-order effects resulting from the surveyed retailers within each format that was investigated (Vermeulen and Barkema 2001). Because four firm dummy variables were significant but did not change the results within each group, they are not included in the results section.

4.3. Method

The methodical approach that we used was threefold. First, the measurements were separately tested for reliability, validity, and possible biases for both countries. Second, we checked for measurement invariance between the two countries. Third, the hypotheses were tested.

To confirm the reliability of the measurements (Table D–3), we ensured that the corrected item-to-total correlation was above .5 (Hair et al. 2010). The threshold was not met for the awareness item of the retail brand equity construct in Germany; therefore, this item was excluded from further analysis (also from the Romanian sample). To assess construct reliability, we computed Cronbach's alpha and composite reliability. These values exceed the recommended thresholds of .7 (Nunnally 1978, p. 245) and .6 (Bagozzi and Yi 1988, p. 80), respectively. Face validity was assessed by means of pre-tests. For construct validity, all of the factor loadings of the confirmatory factor analysis (CFA) were above .5 (Hair et al. 2010), and the average variance extracted (AVE) values with a threshold of .5 provided support for convergent validity (Bagozzi and Yi 1988, p. 80). We also tested for discriminant validity (Fornell and Larcker 1981, p. 46). Because the squared correlation between assortment and store layout exceeded the AVE values of the two respective constructs for the Romanian sample, we also verified the discriminant validity using a chi-square difference test following the procedure of Anderson and Gerbing (1988, p. 416). Finally, the fit values for both confirmatory models (see Table D–4) were found to be satisfactory (Hu and Bentler 1999; Browne and Cudeck 1992; Hair et al. 2010) despite the χ^2/df value (Hinkin 1995). Because the latter value is dependent on the sample size, a value beyond the recom-

mended threshold may be considered acceptable (Wheaton 1987, p. 128; Kline 2011, p. 204).

The probability of non-response bias was controlled only by the selection procedure during the data collection process. We addressed common method bias a priori by employing an appropriate questionnaire design that included the appropriate order of questions and a posteriori by calculating a single-factor test using a confirmatory factor analysis (Podsakoff et al. 2003). The model with all items loading on a single factor (CFI .402; TLI .354; RMSEA .179; SRMR .133; $\chi^2(350) = 10{,}624.462$) shows significantly worsened fit values in comparison with our model ($\Delta\chi^2(28) = 9{,}057.072.149$, $p < .000$) in Germany and Romania (CFI .631; TLI .602; RMSEA .153; SRMR .091; $\chi^2(350) = 13{,}027.569$; $\Delta\chi^2(28) = 10{,}990.121$, $p < .000$). Thus, we can assume that the possibility of common method bias is reduced.

Construct	Item	MW/Std.	FL	KMO	ItTC	α	CR	λ	MW/Std.	FL	KMO	ItTC	α	CR	λ
		Germany							Romania						
Story Loyalty	SL1	4.8/1.5	.836	.715	.755	.870	.872	.748	5.2/1.4	.812	.735	.757	.891	.893	.838
	SL2	4.9/1.4	.923		.810			.842	5.2/1.4	.922		.831			.816
	SL3	4.1/1.6	.744		.694			.917	4.9/1.6	.837		.776			.919
Retail Brand Equity	RBE1[a]	6.0/1.1	-	.682	-	.763	.772	-	5.8/1.2	-	.717	-	.828	.825	-
	RBE2	5.6/1.2	.625		.540			.618	5.5/1.3	.789		.689			.789
	RBE3	4.1/1.6	.742		.619			.706	4.7/1.6	.738		.662			.709
	RBE4	4.8/1.3	.821		.662			.858	5.2/1.3	.854		.731			.875
Commu-nication	Comm1	4.9/1.7	.712	.796	.673	.896	.900	.734	5.2/1.4	.848	.798	.773	.887	.890	.873
	Comm2	4.8/1.5	.953		.878			.938	5.1/1.3	.939		.848			.940
	Comm3	4.7/1.4	.877		.816			.862	5.1/1.3	.833		.779			.811
	Comm4	4.3/1.5	.796		.736			.816	4.5/1.5	.658		.626			.654
Store Layout	StLay1	5.0/1.4	.812	.760	.759	.881	.883	.800	5.2/1.3	.823	.835	.785	.920	.920	.839
	StLay2	5.4/1.3	.855		.770			.744	5.5/1.2	.880		.829			.867
	StLay3	5.4/1.2	.853		.775			.848	5.4/1.2	.883		.832			.869
	StLay4	4.9/1.4	.721		.680			.857	5.3/1.3	.862		.817			.875
Assort-ment	Ass1	5.6/1.2	.861	.712	.729	.820	.818	.720	5.5/1.2	.877	.733	.781	.869	.869	.810
	Ass2	5.2/1.5	.747		.664			.827	5.4/1.3	.833		.753			.864
	Ass3	5.5/1.1	.748		.658			.805	5.4/1.2	.784		.719			.821
Location	Loc1	5.4/1.4	.842	.736	.760	.872	.874	.789	5.3/1.4	.795	.736	.722	.863	.864	.826
	Loc2	5.5/1.3	.884		.790			.853	5.2/1.5	.847		.756			.818
	Loc3	5.3/1.5	.790		.729			.877	5.3/1.6	.831		.746			.829
Price	Pri1	5.1/1.2	.868	.853	.822	.922	.923	.806	5.3/1.2	.838	.836	.791	.915	.916	.811
	Pri2	5.1/1.2	.922		.867			.872	5.4/1.2	.910		.851			.837
	Pri3	5.2/1.2	.884		.837			.918	5.4/1.2	.875		.825			.899
	Pri4	4.8/1.4	.802		.769			.886	5.4/1.2	.795		.757			.877
Service	Serv1	4.8/1.2	.793	.843	.744	.898	.900	.780	5.3/1.2	.784	.833	.749	.918	.921	.842
	Serv2	4.9/1.2	.875		.810			.814	5.1/1.3	.900		.847			.809
	Serv3	4.7/1.2	.876		.811			.866	5.0/1.3	.913		.859			.891
	Serv4	4.6/1.2	.777		.731			.869	5.0/1.3	.838		.797			.904

Confirmatory model fit Germany: CFI .928; TLI .915; RMSEA .065; SRMR .053; $\chi^2(322) = 1{,}567.390$.
Confirmatory model fit Romania: CFI .950; TLI .941; RMSEA .059; SRMR .044; $\chi^2(322) = 2{,}037.448$.

Notes: MW/Std. = Mean values and standard deviations, FL = Factor loadings (exploratory factor analysis), KMO = Kaiser-Meyer-Olkin criterion (≥ .5), ItTC = Item-to-Total Correlation (≥ .3), α = Cronbach's alpha (≥ .7), CR = Composite reliability (≥ .6), λ = Standardized factor loadings (confirmatory factor analysis) (≥ .5).
[a] Item deleted because of a low Item-to-Total Correlation.

Table D–3: Reliability and validity of measurements

Source: Own creation.

Constructs	AVE	SL	RBE	Comm	StLay	Ass	Loc	Pri
Germany								
SL	.695	-						
RBE	.538	*.142*	-					
Comm	.693	*.048*	*.176*	-				
StLay	.653	*.135*	*.213*	*.154*	-			
Ass	.601	*.133*	*.319*	*.165*	*.362*	-		
Loc	.698	*.137*	*.028*	*.045*	*.097*	*.104*	-	
Pri	.750	*.145*	*.099*	*.037*	*.090*	*.073*	*.078*	-
Serv	.693	*.099*	*.239*	*.138*	*.266*	*.403*	*.069*	*.110*
Confirmatory model fit: CFI .928; TLI .915; RMSEA .065; SRMR .053; $\chi^2(322) = 1{,}567.390$.								
Romania								
SL	.735	-						
RBE	.611	*.366*	-					
Comm	.671	*.185*	*.352*	-				
StLay	.743	*.280*	*.450*	*.303*	-			
Ass	.689	*.371*	*.521*	*.319*	*.701*[a]	-		
Loc	.680	*.220*	*.162*	*.077*	*.257*	*.285*	-	
Pri	.732	*.295*	*.345*	*.204*	*.464*	*.584*	*.352*	-
Serv	.747	*.241*	*.328*	*.198*	*.444*	*.458*	*.243*	*.471*
Confirmatory model fit: CFI .950; TLI .941; RMSEA .059; SRMR .044; $\chi^2(322) = 2{,}037.448$.								
Model comparison with the confirmatory model that has fixed correlation: StLay with Ass: CFI .935; TLI .924; RMSEA .067; SRMR .047; $\chi^2(323) = 2{,}557.326$; $\Delta\chi^2(1) = 519.878$.								

Notes: AVE = Average variance extracted (≥ .5); values in italics represent squared correlations between constructs; SL = Store Loyalty, RBE = Retail Brand Equity, Comm = Communication, StLay = Store Layout, Ass = Assortment, Loc = Location, Pri = Price; Serv = Service.

[a] For each violated case in which the criterion of Fornell and Larcker (1981) was not met, we also assessed the discriminant validity using a chi-square difference test by following the approach of Anderson and Gerbing (1988). This procedure demands a comparison of the chi-square value of a nested model with that of the proposed comparison model. The nested model is a more restrictive model with more degrees of freedom, as one correlation was fixed at value one, which indicates a perfect correlation between two constructs and thus no discriminatory power. However, each successively conducted comparison test yielded satisfactory results because the nested model fit was significantly poorer ($p < .001$) than that of the proposed comparison model. Thus, discriminant validity is ensured.

Table D–4: Discriminant validity

Source: Own creation.

We conducted measurement invariance tests to assess the measurement equivalence between the countries (Cheung and Rensvold 2002) by applying a confirmatory factor analysis. The use of this approach requires a sequence of successive tests in which each step is a requirement for the following step (the baseline, metric-invariant, and scalar-invariant models). We applied differences-in-fit indices to determine the measurement invariance (e.g., chi-square difference tests and ΔCFI) between each step. Because full scalar measurement invariance was not accomplished for both samples, partial scalar invariance was ascertained (Byrne, Shavelson, and Muthén 1989) by

freeing some intercept and factor loading values (see Table D–5). The results indicate a good fit for all models and provide support for the proposition that partial measurement invariance holds for all constructs in both the German and Romanian samples. The partial invariance model is used in the subsequent hypothesis testing.

Model	χ^2/df (p-value)	χ^2-Difference (p-value)	CFI (ΔCFI)	TLI (ΔTLI)	RMSEA (ΔRMSEA)
Model 1: Configural invariance	3,604.838/644 (.000)	-	.943	.933 (-)	.061 (-)
Model 2: Full metric invariance	3,739.705/664 (.000)	134.867 (.000)	.940 (.003)	.932 (.001)	.061 (.001)
Model 3: Partial metric invariance[a]	3,618.179/652 (.000)	13.341 (.101)	.942 (.001)	.933 (.000)	.061 (.000)
Model 4: Partial metric and full scalar invariance	4,175.768/672 (.000)	557.589 (.000)	.932 (.010)	.924 (.009)	.065 (.004)
Model 5: Partial metric and partial scalar invariance[b]	3,623.728/654 (.000)	5.549 (.062)	.942 (.000)	.933 (.000)	.061 (.000)

[a] Factor loadings are freed for the following items: SL1, RBE2, Comm3, Comm4, StLay3, StLay4, Ass3, Loc1, Pri2, Pri3; Serv1, Serv2.
[b] Intercepts are freed for the following items: SL2, SL3, RBE2, Comm3, Comm4, StLay1, StLay3, StLay4, Ass1, Ass3, Loc2, Loc3, Pri1, Pri2, Pri3, Serv1, Serv2, Serv3.

Table D–5: Measurement invariance between Germany and Romania

Source: Own creation.

5. Results

To analyze whether German and Romanian consumers perceive the specific format characteristics as expected, we calculated mean values for each retail attribute per format and per country.

The results regarding the discount format perceptions of customers (see Table D–6) show that the core attribute is not perceived as being significantly different between the two countries; thus, hypothesis 1a is supported. We can conclude that the core attribute of discounters is perceived similarly, whereas consumer perceptions of other attributes vary (except for the perception of location). Furthermore, the results indicate that the mean value of price is the

highest compared with other attributes. Because these results were obtained for both the developed and emerging countries, they provide strong support for price as the core attribute of discounters. Furthermore, location convenience is the second strongest attribute after price in both countries, and this result underlines the increasing relevance of the store networks of discounters (Cleeren et al. 2010).

Formats	Retail instruments	Mean value	Standard deviation	Mean value	Standard deviation	Two-tailed t-tests[a]
		Germany		Romania		
Dis-counters	Communication	4.35	1.40	4.78	1.31	***
	Store Layout	4.91	1.14	5.27	1.24	***
	Assortment	4.87	1.08	5.25	1.20	***
	Location	5.56	1.13	5.50	1.26	ns
	Price	5.61	0.86	5.50	1.09	ns
	Service	4.40	1.06	5.14	1.20	***
Super-markets	Communication	4.68	1.31	4.74	1.23	ns
	Store Layout	5.31	1.17	5.17	1.14	ns
	Assortment	5.44	1.03	5.17	1.14	**
	Location	5.38	1.35	4.99	1.32	***
	Price	4.42	1.12	5.11	1.17	***
	Service	4.83	1.04	4.99	1.11	ns
Hyper-markets	Communication	4.96	1.22	5.24	1.03	***
	Store Layout	5.31	1.11	5.53	1.03	**
	Assortment	5.93	0.92	5.64	0.96	***
	Location	5.27	1.28	5.24	1.34	ns
	Price	5.04	1.05	5.43	0.95	***
	Service	5.09	0.98	5.13	1.12	ns

Notes: *** p < .001, ** p < .01, ns = not significant.
[a] Two-tailed t-tests between Germany and Romania of one respective retail attribute in a specific retail format.

Table D–6: Mean value comparisons of store attribute perceptions

Source: Own creation.

Among supermarkets, hypothesis 1b is not supported. Although service is perceived similarly in both countries, assortment and location are perceived significantly differently: they are perceived more strongly in Germany than in Romania. However, assortment and location show the highest mean values compared with other attributes in both countries. This result may underline the perceptions of consumers that assortment and location are the core attributes of supermarkets. With respect to the perceptions of hypermarkets, hypothesis 1c is not supported. Although service is perceived similarly in both countries, the differences in the mean values of store layout and assortment vary;

perceptions of store layout are stronger in Germany, and perceptions of assortment are stronger in Romania. However, it must be emphasized that both assortment and store layout are the two strongest core attributes in both countries. This finding indicates that although customer perceptions vary in this country comparison, there is strong evidence that assortment and store layout may be perceived as core attributes of hypermarkets.

In sum, our reasoning concerning the unchanged perceptions of core attributes for particular retail formats does not hold, but the conceptualized core attributes are frequently perceived as being the strongest attributes within each format. This finding indicates that core attributes may dominate the format perceptions of consumers in both developed and emerging countries.

To analyze whether the influence of retail attributes on retail brand equity differs for the formats between the two countries, we applied a multiple-group structural equation model (MG-SEM) using Mplus. The model revealed both the indirect and direct effects of retail attributes on store loyalty to draw a complete picture of the results and because the retail attributes are actually direct drivers of store loyalty (Pan and Zinkhan 2006) (see Table–D7). To interpret the results of the format comparison between Germany and Romania, we considered unstandardized structural coefficients (Singh 1995). The global fit measures of the calculated MG-SEM are satisfactory (CFI .927; TLI .919; RMSEA .067; SRMR .058; $\chi^2(2042) = 5{,}820.140$).

With respect to the results for discounters, the determining role of the core attribute of price does not significantly differ between the two countries; thus, hypothesis 2a is supported. However, price is a significant driver of retail brand equity only in Germany. Furthermore, the results show that assortment is the strongest driver of the retail brand equity of discounters in both countries. With respect to the results for supermarkets, the core attributes of assortment, location, and service do not differ significantly between the two countries as drivers of retail brand equity; thus, hypothesis 2b is supported. However, only assortment and service are significant drivers of retail brand equity in Germany and Romania, as location does not significantly contribute to retail brand equity but to store loyalty. Furthermore, the results show that communication is a relevant driver in both countries. With respect to the results pertaining to

hypermarkets, the core attributes of store layout and assortment do not significantly differ in their effect on retail brand equity between the two countries, and both attributes drive retail brand equity, despite the store layouts that are found in Germany. However, service does significantly differ in its effect on retail brand equity; thus, hypothesis 2c is only partly supported. Furthermore, communication was found to be a driver of retail brand equity in both countries.

In sum, the role of core attributes in retail brand equity within a specific format is apparent in both countries, but differences were also revealed. Thus, retailers should focus on their core attributes but also consider other effects, including country-specific effects, such as store layout in German hypermarkets.

Hypotheses 3a, 3b, and 3c are supported, as the effect of retail brand equity on store loyalty is equally significant in both countries. Retail brand equity significantly influences store loyalty in Germany and Romania for all retail formats, discounters, supermarkets, and hypermarkets. Thus it may be concluded that a strong, attractive, and unique retail brand generally determines store loyalty in both developed and emerging countries. Furthermore, the direct effects of attribute perceptions for store loyalty differ between the two countries in three cases: for prices (supermarkets) and for store loyalty (supermarkets and hypermarkets). However, these direct effects and possible mediation effects are not the subjects of this study. With respect to the covariates, only age was significant for the German supermarkets; thus, this result indicates that older German consumers are more likely to be loyal to supermarkets.

	Germany						Romania						Country differences		
	Discounter (N = 303)		Supermarkets (N = 305)		Hypermarkets (N = 311)		Discounter (N = 434)		Supermarkets (N = 347)		Hypermarkets (N = 759)		D	S	H
Effects	SC	p	SC	p	SC	p	SC	p	SC	p	SC	p	p[a]	p[a]	p[a]
Comm → RBE	.039	ns	.310	***	.209	***	.204	***	.136	**	.381	***	*	*	**
	(.047)	ns	(.338)	***	(.242)	***	(.206)	***	(.144)	**	(.366)	***			
StLay → RBE	.206	*	.070	ns	.058	ns	-.066	ns	.195	ns	.168	*	ns	ns	ns
	(.193)	*	(.069)	ns	(.061)	ns	(-.059)	ns	(.180)	ns	(.154)	*			
Ass → RBE	.450	***	.361	**	.230	*	.726	***	.389	*	.303	***	ns	ns	ns
	(.386)	***	(.312)	**	(.199)	*	(.646)	***	(.364)	*	(.267)	***			
Loc → RBE	-.149	ns	-.066	ns	-.068	ns	.146	ns	.003	ns	-.041	ns	*	ns	ns
	(-.140)	ns	(-.073)	ns	(-.078)	ns	(.135)	ns	(.003)	ns	(-.051)	ns			
Pri → RBE	.248	*	-.024	ns	.110	ns	-.056	ns	.051	ns	-.007	ns	ns	ns	ns
	(.178)	*	(-.022)	ns	(.110)	ns	(-.044)	ns	(.048)	ns	(-.006)	ns			
Serv → RBE	-.120	ns	.252	**	.477	***	.037	ns	.159	*	.101	*	ns	ns	***
	(-.100)	ns	(.206)	**	(.409)	***	(.033)	ns	(.137)	*	(.108)	*			
Comm → SL	-.007	ns	-.016	ns	-.066	ns	.080	ns	.108	ns	-.075	ns	ns	ns	ns
	(-.007)	ns	(-.016)	ns	(-.067)	ns	(.079)	ns	(.093)	ns	(-.065)	ns			
StLay → SL	.040	ns	.200	*	.185	*	-.016	ns	-.246	ns	-.062	ns	ns	*	*
	(.034)	ns	(.179)	*	(.170)	*	(-.015)	ns	(-.186)	ns	(-.051)	ns			
Ass → SL	.236	ns	-.043	ns	.003	ns	.116	ns	.355	ns	.268	**	ns	ns	ns
	(.183)	ns	(-.033)	ns	(.002)	ns	(.102)	ns	(.270)	ns	(.213)	**			
Loc → SL	.130	ns	.262	***	.260	***	.197	*	.190	*	.168	***	ns	ns	ns
	(.110)	ns	(.261)	***	(.261)	***	(.108)	*	(.170)	*	(.191)	***			
Pri → SL	-.006	ns	.473	***	.176	*	-.053	ns	.109	ns	.185	*	ns	*	ns
	(-.004)	ns	(.395)	***	(.154)	*	(-.041)	ns	(.083)	ns	(.139)	*			
Serv → SL	.091	ns	-.200	*	-.010	ns	.226	*	.057	ns	.000	ns	ns	ns	ns
	(.069)	ns	(-.154)	*	(-.007)	ns	(.202)	*	(.040)	ns	(.000)	ns			
RBE → SL	.196	*	.313	**	.259	*	.297	**	.473	***	.352	***	ns	ns	ns
	(.177)	*	(.282)	**	(.225)	*	(.293)	**	(.386)	***	(.333)	***			
Covariates:															
Gender	.196	ns	-.211	ns	-.203	ns	.062	ns	.104	ns	.092	ns	ns	ns	ns
	(.078)	ns	(-.082)	ns	(-.085)	ns	(.023)	ns	(.036)	ns	(.039)	ns			
Age	.000	ns	.011	**	-.001	ns	.003	ns	-.002	ns	-.002	ns	ns	*	ns
	(-.004)	ns	(.144)	**	(-.017)	ns	(.044)	ns	(-.021)	ns	(-.026)	ns			
R^2 *SL*	.182	***	.500	***	.323	***	.491	***	.556	***	.371	***			
Structural model fit: CFI .926; TLI .916; RMSEA .064; SRMR .055; $\chi^2(2294) = 6{,}154.394$.															

Notes: SL = Store Loyalty, RBE = Retail Brand Equity, Comm = Communication, StLay = Store Layout, Ass = Assortment, Loc = Location, Pri = Price; Serv = Service; D = Discounter, S = Supermarket, H = Hypermarket; SC = Structural coefficients.
*** p < .001, ** p < .01, * p < .05, ns = not significant; standardized coefficients are shown in brackets.
[a] Significance in differences among country groups.

Table D–7: Results of the country-format comparisons

Source: Own creation.

6. Discussion

This study builds on research on the increasing internationalization of retailers (Swoboda, Zentes, and Elsner 2009), in which grocery retailers are particularly likely to adapt their offers abroad (Gamble 2010; Goldman 2001) and successfully transfer well-known retail formats from home to host countries (Gielens and Dekimpe 2001). Because retail formats are considered retailers products and generic retail positioning profiles (Dawson 2000; González-Benito 2005), this study specifically focuses on the role of the core attributes of a particular format for the building of a retail brand within a specific format as a determining factor of local consumer responses in Germany and Romania. The results show that although most consumer perceptions of core attributes differ between each retail format in both markets, when the retail brand equity is considered, similar core attributes are often found to be perceptually relevant for the position of each format as a strong brand in both markets. Therefore, the successful internationalization of grocery retailers occurs through local responsiveness and the adaptation of offers (Goldman 2001; Swoboda, Elsner, and Morschett 2012), but this adaptation occurs within the boundaries of core attributes that are specific to each format. Thus, format-specific core attributes determine format transfer efforts and consumer-related market success. This observation allows for three theoretical and managerial suggestions.

Concerning the first research question regarding format perceptions, we observe that the core attributes of a particular retail format are not always perceived similarly by customers in developed and emerging countries, although the core format attributes often represent the highest mean values compared with other store attributes. With respect to hypermarkets, for example, perceptions of store layout and assortment are higher than those of other attributes. These results support but also contribute additional knowledge to previous observations, such as research on discounters (Burt and Mavrommatis 2006). We show that although format-specific core attribute perceptions vary between countries, core attributes frequently reach the highest values (i.e., the structure of the attributes) within a specific format in both countries. Perceptions regarding core attributes may vary because of strong adaptation pressures, such as price adaptation resulting from local

income and supply issues (Swoboda, Elsner, and Morschett 2012), but similar core attributes determine inter-format competition from the consumer perspective (for an overview, see Cleeren et al. 2010). Thus, retailers must consider these attributes when expanding abroad. Scholars should note that standardization or adaptation degrees are determined not only by the internationalization strategies and local environments of firms but also by the genuine formats that are chosen for expansion.

Concerning our second research question, we observe that the relevance of core attributes for strong retail brand positioning within each format does not substantially differ between the two countries and that the relationship between retail brand equity and store loyalty is significant for all formats and in both countries, although the latter result implies that retail brands are also a strong predictor of patronage in an international context (Keller and Lehmann 2006). Thus these format-specific core attributes represent the expected boundaries of format transfer abroad and for local consumer responses. This finding may indicate the need for a stronger format-specific (rather than general) view of international success in retailing (Gielens and Dekimpe 2001; Etgar and Rachman-Moore 2008). However, the relevance of other attributes for success in different countries should not be neglected. The following list includes format-specific implications concerning discounters, supermarkets, and hypermarkets as well as attribute-specific implications:

Strong discount brands generally draw from price perceptions, which imply that adaptation and local competition efforts must be based on this particular core attribute. This finding contributes to the spatial competition literature (e.g., González-Benito, Muñoz-Gallego, and Kopalle 2005; Popkowski Leszczyc, Sinha, and Timmermans 2000) and studies on format-specific transfer and response to local markets (Goldman 2001; Swoboda, Elsner, and Morschett 2012). However, the results also show that discount brands strongly draw from assortment perceptions in both countries, whereas location effects differ between the two countries, perhaps because of differing store networks or cultural differences between the countries (Evans and Mavondo 2002). The effect of assortment on retail brand equity may indicate that there is a general change in the position of discounters in both Germany and Romania.

Supermarkets primarily draw from the core attributes of assortment and service (Solgaard and Hansen 2003; Sjödin and Törn 2006). Because the effects of assortment and service on retail brand equity do not differ between the developed and emerging countries in this study, this finding indicates the largely similar role of both attributes in the strategy of transferring supermarkets to foreign countries. Remarkably, there is no influence of the core attribute of location on brand equity in either country, although location is a driver of store loyalty in both countries. Because communication is also a significant driver of retail brand equity, we can conclude that retailers utilizing the supermarket format can generate strong brands across countries when they focus on assortment, service, and communication.

Hypermarkets draw from the core attributes of assortment and service in both countries (Solgaard and Hansen 2003). The lack of difference between the countries considering assortment indicates the largely unchanged role of this attribute in the transfer strategies of hypermarkets. The relevance of the third conceptualized core attribute (store layout) only for Romanian hypermarkets may be explained by two facts: first, Cluj contains three French hypermarket retailers, which place greater emphasis on the experience orientation of customers compared with the hypermarket retailers in Germany. Second, the hypermarket format is innovative for the Romanian grocery retail market, as the Romanian grocery sector was dominated by small regional neighborhood stores in the past and serves as evidence of the success of innovative formats in emerging markets (Gielens and Dekimpe 2001). Hypermarkets also have the highest market share in Romanian grocery retailing among the different formats.

In sum, we can conclude that a format-specific view is useful for retailers and researchers who observe the foreign expansion of firms. The transfer of retail attributes is known to vary in terms of, for example, less adapted store layouts or services and stronger adapted assortments or prices (Goldman 2001). However, when retailers transfer format elements abroad, they must consider both adaptation levels and consumer perceptions. In other words, when the core attribute of discounters is price (Solgaard and Hansen 2003), discounters encounter specific challenges in adapting their prices in relation to local competition or hypermarkets in adapting their assortment. Thus, a simple

observation of single attributes and their adaptation levels without consideration of specific formats neglects format-specific boundary conditions. Consequently, we call for a format-specific investigation of format transfers into foreign countries.

For retail managers who transfer preferred formats to host countries but are forced to be locally responsible, knowledge of the role of core format attributes in strong brand positioning in the minds of consumers is of paramount importance because this role may differ from the home country experience – particularly in emerging countries (Evans and Mavondo 2002) – and because different consumer perceptions may jeopardize market success. Our results show that Western expectations concerning the effects of core attributes on brand building are confirmed in Romania; thus, expected core attributes equally determine format positioning, such as price for discounters, service for supermarkets, and assortment for hypermarkets. Such mechanisms of brand building should be known and carefully observed by retail managers, especially in dynamic emerging retailing markets. However, differences between countries should also be considered when a format is transferred abroad (e.g., a hypermarket's store layout is only relevant in the emerging country).

7. Limitations and Further Research

This study contains certain limitations and provides opportunities for future research. Although we devoted special attention to data collection, this study is limited in scope. We collected data in two countries, focused on two cities, and considered only three retail formats. We did not control for other potential differences relating to the brands, store locations or further differences of the investigated retailers. Broadening the database would mitigate these limitations and allow for further conclusions. For example, although Romania is an emerging European country, future studies may target other countries, control for country-of-origin effects in retailing (Javalgi, Cutler, and Winans 2001; Baldauf et al. 2009) and cultural differences in retailing (e.g., De Mooij and Hofstede 2002), and compare foreign and domestic retail positions and success factors (e.g., Swoboda, Pennemann, and Taube 2013); the latter subject was not addressed in this study.

Considering changes in the dimensionality of the measurement of certain attributes (e.g., placing greater emphasis on the breadth and depth of assortments) may influence the role that an attribute may play in explaining retail brand equity; thus, a closer investigation of the core attributes (e.g., using objective attribute descriptions) may extend the observations that can be drawn from such a study. Intra-format competition was not observed in the current study, as we summarized retailers under the format-specific retail brand and did not observe additional grocery formats, such as convenience or neighborhood stores. For example, the inclusion of additional formats or rural areas would allow for more detailed investigations (Burt and Mavrommatis 2006). Finally, the inclusion of moderating factors, such as shopping motives (Noble, Griffith, and Adjei 2006) or the degree to which store brands a retailer offers (Corstjens and Lal 2000; Woodside and Ozcan 2009), are conceivable, and a longitudinal analysis could assist us in understanding changes in consumer perceptions of formats in dynamic markets.

E. Final Remarks

1. Discussion and Conclusions

1.1. Core Results

Retail branding is an important intangible asset for retailers and one that is crucial in determining consumer behavior, e.g. store loyalty, and in turn drives consumer spending and retailers' performance (Keller and Lehmann 2006; Jinfeng and Zhilong 2009; Macintosh and Lockshin 1997). Despite the undisputed relevance of retail branding and a peak in retail branding studies in 2004 due to a special issue on retail branding in the Journal of Retailing (Grewal and Levy 2007), a literature review depicted that there was much more research on store image than on retail branding (see Chapter A). Specifically, several complex branding-related topics emerged, i.e., retail branding and reciprocal relationships, the interplay of retail brands and location in a local competitive context, and retail brand effects within retail formats in an international context. These related topics contain fruitful research areas on retail branding and aim to further our understanding on retail brand effects in driving store loyalty. Thus, this thesis also contributes to the lack of research on the drivers of store loyalty (Peterson and Balasubramanian 2002). The present thesis offers new insights on a highly relevant topic for scholars and practitioners. The different contexts that arise within the topic of retail branding are examined based on established theories (e.g., schema theory) by means of several studies conducted (e.g. cross-sectional, longitudinal, and experimental designs), and by approaching different methods (e.g., non-recursive structural equation modeling, cross-lagged design for structural equation models, and multiple-group structural equation modeling). Additionally, It must be emphasized that it is essential to take the consumers' view of brand into account, as the retail brand's power exists in consumers' minds (Leone et al. 2006). The present doctoral thesis, therefore, occupies the perspective of behavioral science on retail branding. In total, the present research emerges specifically from a lack of knowledge (1) on reciprocal effects in retailing, (2) on current insights on location issues in conjunction with retail brands, and (3) on the principles of managing retail brands within retail formats across countries.

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In detail, the following key questions can be answered with the present research:

(1) Do perceptions regarding a retailer's reputation and retail store equities interact with each other in determining store loyalty, and how should retailers manage both levels, e.g. invest in their reputation or in stores as brands?

(2) Against the background of different local competitive contexts, should retailers manage their retail brand or easily accessible stores to attract consumers?

(3) Are specific retail format characteristics actually perceived by consumers in a similar manner in developed as well as in emerging countries, and do they equally influence the respective retail brands within each format in both developed and emerging countries?

The main results of the three studies conducted for each of these questions are interesting and can be described as follows.

By answering the first key question, Study 1 explores whether reciprocity exists between associations at different perception levels (i.e. between corporate reputation and retail store equity) and which of both associations is a stronger driver of store loyalty. This research enhances our understanding of the role of consumers' local and corporate brand perceptions in store loyalty, which in turn is a strong driver of retail performance. Thus, retail managers may gain insights for use in the allocation of investments. Study 1 focuses, therefore, on the first general research objective. The findings of several studies by using cross-sectional, longitudinal, and experimental designs considering different retail sectors identify positive reciprocal effects between associations at different perceptions levels, i.e. corporate reputation and retail store equity. All studies conducted evidence the existence of reciprocity between different perception levels. Thus, retailers who have created positive associations with their corporation and their store in consumers' minds, and thus created positive associations at different perception levels, will draw positively from the fact that these associations mutually support each other positively. The present research contributes to proving the existence of reciprocal effects empirically based on schema theoretical reasoning. Most of the results also support the assumption that store loyalty draws most from the consumers' associations at

store level, i.e. from retail store equity. This knowledge advances the understanding of how retailers should manage both levels to attract consumers, e.g. to focus on store-related investments. Thus, with the expectation that a retailer has created positive associations considering both levels in consumers' minds, it becomes apparent that focusing on the store-related associations may result in a promising pay-off for retailers' performance. However, investments at the corporate level should not be neglected.

By answering the second key question, Study 2 explores the influence of retail brand equity and store accessibility of a focal retailer and his competitors on store loyalty in consideration of different objective local competitive situations. This research aims to add further knowledge on consumers' local brand and location perceptions that affect store loyalty in different competitive situations. Thus, retailers may gain insights concerning future site selection and the allocation of investments through building the retail brand and location choice. Study 2 focuses, therefore, on the second general research objective. The results are based on a cross-sectional consumer study at 30 locations of one specific DIY retailer and show that the focal retailer's retail brand equity and store accessibility have a positive influence on store loyalty. Additionally, retail brand equity was confirmed to be a driver of store accessibility. Second, the results also indicate that the retail brand equity and store accessibility effects of competitors have a negative influence on store loyalty towards the focal retailer. The findings of Study 2 also support the assumption that the effects vary in consideration of different objective local competitive situations, i.e. differing local competitive intensities and different local distances to the next possible competitor. The impact of an easily accessible store location on store loyalty increases with low competitive intensity and a short distance to the next possible competitor. In turn, retailers profit most from retail brand equity if the next competitor is nearby. However, the results of Study 2 also show that retail brand equity is always the strongest driver of store loyalty in any competitive situation. This knowledge advances our understanding of the importance of a retail brand for retailers. Again, retailers should invest in building a strong retail brand because retail brand equity drives store loyalty more than store accessibility. Store accessibility and thus, a favorable location, is viewed as an important retail attribute that determines store choice and follows the old retail

mantra “location, location, location”. Thus, retailers should not neglect careful location decisions, but also take the retail brand into account when deciding on investments in different competitive situations. However, acknowledging the immense impact retail brand equity has on store loyalty in comparison to store accessibility in any local competitive situation, concentration by retailers on building a strong retail brand will result in enhanced performance as the retail brand has supporting effects that are independent of weak or strong locations.

By answering the third key question, Study 3 explores the perceptions of format-specific core attributes and their influence on retail brand equity, which in turn drives store loyalty, against the background of a developed and an emerging market. In detail, the emphasis of this research lies on western European grocery retailers who transfer their traditional retail formats, i.e. discounters, supermarkets, and hypermarkets, to emerging countries, e.g. Romania. This research is of interest to managers because they frequently use their retail format(s) for foreign expansion and need to know whether customers abroad perceive the format in a similar manner. They need to know especially whether the attributes characteristic of the format drive the brand to an equal extend. Thus, retailers gain knowledge to manage their format and retail brand abroad efficiently and thus enhance performance. Study 3 focuses, therefore, on the third general research objective. The results are based on two cross-sectional consumer studies on the grocery sector (Germany and Romania) and show that most of the format-specific core attributes differ in consumers’ perceptions between the developed and the emerging market, but that the format-specific core attributes achieve the highest evaluations in both Germany and Romania. Thus, the format-specific attributes are also perceived to be core attributes in emerging countries. However, the findings support the assumption that most format-specific core attributes drive retail brand equity to an equal extend within the specific format in both the developed and the emerging country. Thus, retailers can also retain their format-specific brand positioning in emerging countries. This knowledge advances the understanding of how retailers should transfer their retail formats to foreign, emerging countries. Emphasizing that most core attributes characteristic of the format drive the retail brand to an equal extend within a specific retail format in the developed as well as in the emerging country, the results implicate that the adaptation of retail offers within

the boundaries of a particular retail format, i.e. assortment and service as core elements of supermarkets, may be a successful way to internationalize. In turn, the results also demonstrate further instruments that are of relevance for a specific country, i.e. the relevance of store layout for Romanian hypermarkets, which have to be taken into account.

In summary, the findings of this doctoral thesis prove the relevance of retail branding for customers' store loyalty and, in turn, retailers' success. In detail, the importance of retail brands was shown (1) for reciprocal effects that occur within consumers' minds as they hold associations with a retailer in their mind at different perception levels that interact, (2) at a local level in conjunction with a store's location and different competitive situations, whereas the latter are responsible for varying effects of retail brand equity and store accessibility on store loyalty, and (3) for retailers who transfer their retail formats to emerging countries, where they have to transport a specific retail brand information and face a number of complex decisions relating to adaptation and standardization within the boundaries of a chosen retail format and its characteristic core attributes. Examination of these results is based on several studies conducted in consideration of different retail sectors (i.e., do-it-yourself, fashion, and grocery), local, nationwide, as well as international consumer samples, different designs (i.e., cross-sectional, longitudinal, and experimental designs), and various methods, (e.g., non-recursive SEM, cross-lagged design for SEM, and multiple-group SEM). The innovative observations in the retailing context, especially with respect to reciprocal relationships in retailing, provide further knowledge on how retailers should manage their retail brands in different complex contexts. The present thesis provides several research and theoretical implications as well as managerial conclusions, and points out the direction for further research topics, which are presented in the following.

1.2. Research and Theoretical Implications

The present thesis contributes to research and theory in several ways, which are discussed in the following.

By examining reciprocal relationships, the present research contributes to an under-researched topic in retailing – bidirectional effects at different perception levels (Atkin 1962; Stanley and Sewall 1976). Thus, the present work expands

the present knowledge on unidirectional relationships (Helgesen, Ivar Håvold, and Nesset 2010; Grewal et al. 1998). The knowledge on the drivers of store loyalty is also enhanced, as Study 1 indicates that consumers' retailer associations at different perception levels support each other mutually before influencing loyalty, although the driving power remains at store level (Peterson and Balasubramanian 2002; Puccinelli et al. 2009). These findings are explored through the lens of schema theoretical reasoning and associative network theory (Mandler 1979; Anderson 1983). Following theory, information is stored in memory using nodes. Regardless of whether these nodes are organized in a categorical or fuzzy manner, the theory postulates that nodes are linked to one another. Considering the directionality of those links, the present research confirms that activation between nodes occurs in both directions. Thus, with its several research designs, Study 1 provides scientific evidence to marketing rules that may have previously been founded mainly on managerial experience. Schema theoretical reasoning was also found to be able to explain the strength of specific associations for store loyalty. It was noted that these associations reveal strengths that are used and updated more frequently. Considering consumer behavior, this may occur for situations or objects that are used and experienced frequently. Furthermore, the methodological implication of this study lies in the valid methodology for a detailed analysis of reciprocal effects by means of successive studies (i.e., cross-sectional, longitudinal, and experimental designs), whereas the final conclusion on the existence of reciprocal effects is finally drawn by using the experimental design.

By analyzing how retail brand equity and store accessibility of a focal retailer and its local competitors influence store loyalty, the results of Study 2 contribute to the call of Grewal, Levy, and Kumar (2009) for more research on location issues. With this approach and the inclusion of moderating variables such as competitive intensity, Study 2 also contributes to the request for further research on the drivers of store loyalty (Peterson and Balasubramanian 2002). Thus, the changing effects on store loyalty of the drivers examined, i.e. retail brand equity and store accessibility of a focal retailer as well as its local competitors, further our knowledge on consumer behavior due to different local competitive situations. The present research, therefore, confirms that the different competitive situations illustrate varying contexts that influence the re-

trieval of mental representations (Dellaert, Arentze, and Timmermans 2008). Furthermore, as the effect of retail brand equity on store accessibility is positive for both the focal retailer and its competitors, this result validates the conceptualization of Grewal, Levy, and Lehman (2004), which postulates positive brand effects for the value creation of assortment or service, for example. Thus, it is found that retail branding also drives consumers' value creation positively in terms of easily accessible locations. These results can be shown with a sample that comprises consumer evaluations from a nationwide survey conducted at 30 different locations of a focal retailer, including local competition.

By investigating the perceptions of core attributes of specific retail formats and their influence on the retail brand within a particular format, the present research furthers our knowledge of the brand building process for traditional retail formats in developed and emerging countries. The present study contributes to the research on format transfer to emerging countries and to positioning studies that observe whether the retailer's position in the home and developed countries can be retained abroad, specifically in emerging countries. Thus, the focus of the present research goes beyond studies that consider only one format, e.g. low-price formats such as discounters (Zhu, Singh, and Manuszak 2009; Merrilees, McKenzie, and Miller 2007) or only a few attributes, e.g. price, assortment, and service (Solgaard and Hansen 2003). The findings, therefore, enhance knowledge on retail branding by using three formats (i.e., discounters, supermarkets, and hypermarkets), several retail attributes (i.e., communication, store layout, assortment, location, price, and service), and the implementation of a country comparison between Germany as a developed country and Romania as an emerging country. In order to answer the third key question, Study 3 followed the idea of the stimulus-organism-response (S-O-R) framework (Russell and Mehrabian 1976; Thang and Tan 2003), but using consumer perceptions instead of manifest stimuli and response variables.

In summary, retail brand associations constitute retailer information that is stored in consumers' minds and retrieved from memory to make purchase decisions for example (Marshall 1995). Despite the complex relationships between information stored in consumer's minds, i.e., reciprocal relationships, the strength of particular associations is responsible ultimately for consumer

behavior. Objective local competitive situations and the transfer of retail formats to emerging countries are compound contexts that enhance our knowledge on the effects of retail branding on consumer behavior.

1.3. Managerial Implications

Since retail branding is still a decisive managerial topic with various complex content areas, the consumer-specific view of this doctoral thesis provides major managerial implications.

Mutual supporting effects in retailing. Consumers can be attracted if a retailer can establish positive associations in consumers' minds towards his corporation or chain as well as towards his stores. This effect of winning customers occurs under the precondition that consumers have positive associations with the various aspects concerning a retailer. In this case, the positive associations support each other positively in attracting and winning customers (Stanley and Sewall 1976). This knowledge is valuable for retailer operations in different situations. By investing efficiently in their reputation and store brands, retailers are able to retain their existing customers and attract new ones. Retailers may also succeed easily in gaining new customers at a location where they build a new store (Atkin 1962). Thus, retailers should invest carefully in building a positive reputation and store equity. It is of particular interest that the associations in consumers' minds considering the corporation or the chain and its stores should match or fit each other because efficient information storage and retrieval are dependent on the extent of fit between information (Eysenck and Keane 2005). However, retailers may focus on the fact that store loyalty may draw more strongly from store-related associations than from corporate- or chain-related associations. Thus, retailers can manage their investments, e.g. promotional investments in building reputation and store equity, more efficiently with regard to enhancing customer loyalty intentions if they consider that those associations and links in consumers' minds that are updated, activated, and retrieved more frequently have the greatest impact on consumers' behavior.

Retail brands create value and perform well in different competitive situations. Positive perceived retail brand associations are able to create value in terms of positively driving the perceptions of a store's accessibility. Retailers that succeed in creating positive retail brand associations in consumers' minds can

draw from this established factor to convey them to other attributes. Thus, retail brands can be used to drive specific retail marketing instruments such as accessibility, service, or quality perceptions, positively (Grewal and Levy 2009). The gravitational pull of a strong, attractive and unique retail brand may make consumers think more positively about the product assortment a retailer offers, consumers may consider the prices to be not as expensive, or locations not as far away as they really are. Thus, creating a strong and attractive retail brand pays off for retailers. For example, retailers with favorable and unique brands, such as IKEA, can use their strong retail brand to attract customers to drive a long way to their stores. Against the background of the retail brand equity and store accessibility that drive customers' loyalty intentions, it becomes obvious that, for low or high competitive intensity or small or large distances to the next possible competitor, the retail brand is the most important antecedent for store loyalty. Although location was considered to be the most relevant driver of store choice and, in turn, of retailers' success (Grewal, Levy, and Kumar 2009), retailers may learn from the present findings that, with growing mobility of and variety seeking by consumers, having a location next to consumers is not the only reason for consumers to visit and revisit a specific store because the retail brand performs better in influencing store loyalty than store accessibility, in spite of different competitive situations. However, having an easily accessible location may still be of importance for retailers, and they should not neglect careful decisions on location issues. But with respect to investments in location or retail brand, retailers should consider the possibility that the retail brand will gain significance.

Retail brands and format-specific attributes across countries. The comparison of developed and emerging countries is of relevance specifically as retailers increasingly leave their home and saturated foreign markets to do business in emerging countries. Retailers may note that although the perceptions considering the format-specific core attributes vary between the developed and the emerging country, i.e. between Germany and Romania, there is strong evidence that consumers evaluate the format-specific core attributes more positively than the other attributes. Thus, retailers can be sure of their format-related positioning abroad with respect to inter-format competition when they focus on the specific core attributes. With respect to the relevance of the core

attributes for the brand building process in developed and emerging markets, discounters should take price into account, while supermarkets should focus on assortment and service in the same way as hypermarkets. Further relevant attributes also emerge depending on the retail format: discounters should also focus on their assortments, supermarkets should also focus on communication, and hypermarkets may additionally focus on communication and store layout, although the latter is only relevant for Romanian consumers. Thus, despite the relevance of format-specific core attributes for retail brand, communication activities frequently try to enhance the brand (Sjödin and Törn 2006). However, as store location plays a role mainly in explaining format competition (Fox and Sethuraman 2010) and customers' store choice (Cleeren et al. 2010), the present findings also reveal that store location does not drive retail brand equity in any format or any country, but it does influence store loyalty across formats and countries.

The following points summarize the conclusions for managers:

- Retailers should consider mutually supporting reciprocal effects in retailing in order to manage their investments efficiently, e.g. promotional investments across corporate and store levels.
- Consumers' associations that are activated frequently, e.g. through specific advertising, have the greatest influence in attracting and retaining customers. Thus, if retailers were to promote store level associations frequently, these associations would act as strong drivers in attracting customers.
- Retail brand serves as a gravitational pull for positive evaluations of store accessibility and possibly for other retail marketing instruments.
- The retail brand outperforms store accessibility in influencing consumer behavior in spite of low or high competitive intensity and of small or large distances to the next competitor.
- With respect to format transfer from developed countries to foreign countries, perceptions of particular format-specific core attributes vary across countries, but the core attributes are still characteristic for each format and define the retail brand equally within each format.
- Depending on the format used, retailers have to focus on additional attributes in building retail brand building across countries.

2. Further Research

In addition to theoretical and managerial implications, this thesis also provides issues for further research. Although limitations and further research topics are discussed at the end of each study, general fields for further research emerge regarding data basis and methodology as well as content relevant to retail brand.

First, although the present doctoral thesis is based on extensive data samples, there are still possibilities regarding the data basis for further research. Broadening the data basis to include further sectors, retailers, locations, or countries would help to investigate the relationship between brand and loyalty in depth. Extension of the nationwide sample to more than 30 locations, for example, and considering different retailers would extend analysis of the trade-off between retail brand equity and store accessibility. Also, the inclusion of secondary data would enhance our knowledge on possible moderating and direct effects, and this extension of the data base would allow for multi-level analysis. This kind of analysis using multi-level structural equation modeling is suggested for analysis of hierarchical data, e.g., the effect of market and firm-specific characteristics on consumer-related relationships between brand and loyalty (e.g., Schramm-Klein 2008). Furthermore, using a longitudinal design regarding format-specific core attributes, retail brand equity, and store loyalty would allow examination of the effects that emerge for new formats in foreign countries over time. This would contribute to studies that focus on a descriptive investigation of new formats entering a foreign country (Fernie and Arnold 2002) by analyzing how consumer perceptions and effects change over time. Thus, broadening the data basis would expand the possibilities for gaining knowledge on retail brand topics as this would also allow for other methodological approaches.

Second, other perspectives relevant to retail brand should be explored. For example, several levels emerge for further examination regarding the branding of diversified or non-diversified retailers. As there is not only the perspective of a corporation and its store, but also store brands (Burt and Davies 2010), the research areas considering retail branding expand. For example, various open issues emerge with respect to reciprocal effects in grocery retailing. Possible

bidirectional relationships with respect to store brands and retail brands, for example, are still unanswered (Martenson 2007). The question also remains, therefore, as to whether store loyalty intentions draw more on store brands or on retail brand equity. This topic would be relevant for retailers as they may gain knowledge on how to manage their store brands or for managers who are considering the option of developing strong store brands. Especially against the background of retailers that operate either with their brand name for store brands or without their brand name, possible moderating effects may emerge in considering this issue. Furthermore, interesting new insights may emerge by examining the corporate, chain, store, and store brand levels when considering diversified retailers. All in all, further studies may take reciprocal effects in their research into account.

Furthermore, other explanatory variables may add knowledge in relationships between retail brand and loyalty. With respect to value creation through retail brands, for example, it would be worth considering other retail attributes in addition to store accessibility that could be influenced by retail brand equity and testing the conceptualization of Grewal et al. (2004; 2009). The gravitational pull of a retailer's brand may also force consumers to judge other instruments more favorably than they actually are, for example quality, service, and price perceptions or store brand evaluations. An examination of other attributes that are boosted by the retail brand in determining store loyalty may add knowledge on how strongly other attributes are affected by the retail brand. Thus, retailers' knowledge on managing attributes would be enhanced.

Finally, there are various consumer characteristics, firm-specific variables, and market characteristics that can be considered as further boundary conditions and thus as moderators in retail branding research. Risk perception, self-confidence, and store familiarity are relevant consumer characteristics that need to be considered (Pan and Zinkhan 2006; Inman, Winer, and Ferraro 2009). Number of stores, average store size, and country of origin or country image are possible values that are specific to the firm and could be taken into account (Voss and Seiders 2003; Hsieh, Pan, and Setiono 2004). Examples of relevant market characteristics are retail sector and format, level and nature of competition, population, and income (Venkatesan, Mehta, and Bapna 2007; Zhu, Singh, and Manuszak 2009). For example, an examination of moderating

effects other than competitive intensity and distances to the next competitor, e.g., average store size as firm-specific characteristic, on the influence of drivers for store loyalty in conjunction with the conceptualization of Study 2 may further our knowledge on consumer behavior. In retail studies, a larger store was considered more attractive than a smaller store. Especially for the grocery sector, there are several retail formats that differ in terms of average store size. Examination of the moderating influence of store sizes of a focal retailer and its competitors – specific to intra- as well as inter-format – on the relationship between retail brand equity, store accessibility, and store loyalty forms a fruitful area of research with many insights. Another example in conjunction with the conceptualization of Study 1 is examination of the moderating effects that store familiarity, as a consumer characteristic, has on the reciprocal effects and their influence on store loyalty. Store familiarity can be understood as the frequency with which a consumer visits a particular store (Inman, Winer, and Ferraro 2009). It is possible that consumers who are less familiar with a specific store draw more from corporate associations because they do not have any frequent activations or updates regarding the store level. Thus, including such boundary conditions would further our knowledge on how to manage retail brands efficiently and enhance customer outcomes.

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G. Appendix

1. Exogeneity Test of Instrumental Variables

To test whether the instrumental variables, corporate communication and store attribute perceptions are exogenous (Frone, Russell, and Cooper 1994), we considered two further instrumental variables. As an instrumental variable for corporate communication we used expectations in corporate communication, which represent general expectations in corporate communication (in the sector). Thus, general expectations in corporate communication directly influence the perceptions of a corporation's corporate communication but are not likely to influence perceptions toward corporate reputation. Expectations in corporate communication is measured by a single item: asking how important corporate communication is in DIY-retailing on a 7-point Likert-type scale. As an instrumental variable for store attribute perceptions, we used shopping motives (measured with a 7-point Likert-type scale adopted from Rintamäki et al. (2006); see Table G–1 for reliability and validity tests) and argued that general shopping motives concerning the sector drives the consumer attribute perceptions of a DIY store.

Item	MV/Std.	FL	ItTC	CR	λ	AVE
Monetary savings: I like to save money when I shop.[a]	4.2/1.7	.43	-			
Convenience: I like to make my purchases conveniently.[a]	5.5/1.3	.36	-			
Status: I feel that I belong to the customer segment of this store.	4.6/1.6	.68	.57		.65	
Self-esteem: I feel like a smart shopper. I'm always sure I made successful purchases.	4.9/1.4	.66	.54	.78	.61	.51
Entertainment: I enjoy shopping trips themselves, not just because I am able to get my purchases done.	4.2/1.7	.73	.65		.79	
Exploration: I want to explore/touch/try different products while shopping.	4.6/1.6	.65	.58		.70	
Kaiser-Meyer-Olkin criterion (≥ .5) = .78, Cronbach's alpha (≥ .7) = .78.						
Confirmatory model fit: CFI .958; TLI .950; RMSEA .048; SRMR .028; $\chi^2(232) = 3{,}250.177$.						

Notes: MV/Std. = Mean values and standard deviations, FL = Factor loadings (exploratory factor analysis), ItTC = Item-to-Total Correlation (≥ .5), CR = Composite reliability (≥ .6), λ = Standardized factor loadings (confirmatory factor analysis) (≥ .5), AVE = average variance extracted (≥ .5).
[a] Item deleted because of a low factor loadings and low Item-to-Total-Correlations.

Table G–1: Reliability and validity of shopping motives

Source: Own creation.

B. Berg, *Retail Branding and Store Loyalty,*
Handel und Internationales Marketing / Retailing and International Marketing,
DOI 10.1007/978-3-658-01596-1, © Springer Fachmedien Wiesbaden 2014

We checked for the strength of the instrumental variables for corporate communication and store attribute perceptions (Stock and Watson 2011). F-tests show that the recommended threshold of 10 is higher for both instrumental variables (for expectations in corporate communication, F is 462,336, and for shopping motives, F is 550,090). Thus, both instrumental variables can be interpreted to be strong predictors (Antonakis et al. 2012). In addition to our proposed model (efficient model, see Antonakis et al. 2010), we calculated a consistent model using the two additional instrumental variables, expectations in corporate communication and shopping motives, using the Hausman (1978) test to compare whether there was a change in path estimates. A change in path estimates would account for the endogeneity of corporate communication and store attribute perceptions. The respective z-value of the comparisons of the effect of corporate communication on corporate reputation was 5.480, and it was 1.111 for store attribute perceptions on retail store equity. These results indicate that store attribute perceptions is exogenous, whereas corporate communication may be endogenous.

N = 5,600	**Consistent Model**		**Proposed/Efficient Model**	
Effects	Structural coefficients	p-value	Structural coefficients	p-value
CR → RSE	.371	***	.274	***
RSE → CR	.796	***	.635	***
CR → SL	.371	***	.369	***
RSE → SL	.350	***	.338	***
CC → CR	.308	***	.375	***
SAP → RSE	.649	***	.585	***
ExpCC → CC	.309	***	-	-
SM → SAP	.409	***	-	-
Covariates:				
Gender	.014	ns	.012	ns
Age	-.017	ns	-.015	ns
DIY abilities	-.038	**	-.028	**
Store familiarity	.429	***	.379	***
Competitive intensity	.006	ns	.003	ns
R^2 Store loyalty	.630	***	.706	***
Total effects of RSE on SL	.916	***	.692	***
Total effects of CR on SL	.712	***	.559	***
Structural model fits:				
Consistent model CFI .905; TLI .891; RMSEA .061; SRMR .117; $\chi^2(346) = 7{,}565.256$.				
Proposed model: CFI .950; TLI .940; RMSEA .052; SRMR .030; $\chi^2(224) = 3{,}584.902$.				

Notes: CR = Corporate Reputation, RSE = Retail Store Equity, SL = Store Loyalty, CC = Corporate Communication, SAP = Store Attribute Perceptions, ExpCC = Expectation in CC, SM = Shopping Motives; *** p < .001, ** p < .01, ns = not significant; standardized coefficients are shown.

Table G–2: Results of the consistent model and efficient model

Source: Own creation.

A solution to this result would be to use the consistent model with expectations in corporate communication and shopping motives as additional instrumental variables to assure consistent estimated beta values. There are three reasons we decided to choose the efficient model instead of the consistent model for hypothesis testing: The global fit measures of the consistent model are modest, at best (CFI .905; TLI .891; RMSEA .061; SRMR .117; $\chi^2(346) = 7{,}565.256$). The structure of the results between the consistent model (with expectations in corporate communication and shopping motives) and the efficient model (our proposed model) is the same (see Table G–2), so the hypotheses would have to be accepted in any case. Kline (2011, p. 156) stated that an instrumental variable could be endogenous or exogenous. However, the use of exogenous instrumental variables is preferred.

2. Cover Studies of the Experimental Design

2.1. Cover Stories Concerning the Fictional Retail Brand

TRIER. Schönheim ist ein Baumarktunternehmen, das 31 Geschäfte in Deutschland unter dem Namen Schönheim führt. In den Läden werden Gartenartikel, Farben/ Innendekoration, Werkzeuge/ Bauelemente, Sanitärartikel sowie entsprechende Dienstleistungen angeboten. Ein neuer Schönheim-Laden soll im kommenden Jahr auch in Trier seine Pforten öffnen. (kbs)

Figure G–1: Neutral message concerning fictional brand
Source: Own creation.

Schönheim als attraktivster Laden in Rheinland-Pfalz ausgezeichnet

Die Industrie und Handelskammer (IHK) hat in Rheinland-Pfalz den Schönheim-Laden mit der besten Note in der Kategorie „Baumärkte" ausgezeichnet; Platz 1 weit vor konkurrierenden Läden.

Der Schönheim-Laden verdient die guten Noten zu Recht: Schönheim ist der attraktivste Baumarkt in Rheinland-Pfalz und unterscheidet sich ganz klar von seiner Konkurrenz. Die Jury setzte sich aus 374 unabhängigen Experten und Konsumenten zusammen und beurteilte alle Baumärkte in Rheinland-Pfalz.

Schönheim ist attraktivster Laden in Rheinland-Pfalz 2010

Rang	Unternehmen	Note
1	Schönheim	1,5
2	HORNBACH	2,5
3	hagebau	2,8

Quelle: IHK 2010

Der prämierte Schönheim-Laden ist eines von 31 Geschäften in Deutschland, die das Unternehmen Schönheim führt. In den Läden werden Gartenartikel, Farben/ Innendekoration, Werkzeuge/ Bauelemente, Sanitärartikel sowie entsprechende Dienstleistungen angeboten. Ein neuer Schönheim-Laden soll im kommenden Jahr auch in Trier seine Pforten öffnen. (kbs)

Figure G–2: Store message concerning fictional brand

Source: Own creation.

Schönheim als kundenorientiertester Baumarkt in Deutschland ausgezeichnet

BERLIN. Der Handelsverband Deutschland (HDE) hat das Unternehmen Schönheim als „Baumarkt des Jahres 2010" ausgezeichnet; Platz 1 weit vor den konkurrierenden Baumärkten.

Das Unternehmen Schönheim verdient die guten Noten zu Recht: Das Unternehmen überzeugt durch seine exzellente Kundenorientierung und hervorragende Mitarbeiterführung. Die Jury setzte sich aus 1.070 unabhängigen Experten sowie Konsumenten zusammen und beurteilte alle Baumärkte in Deutschland.

Unternehmen Schönheim "Baumarkt des Jahres 2010"

Rang	Unternehmen	Note
1	Schönheim	1,5
2	HORNBACH	2,5
3	hagebau	2,8

Quelle: Handelsverband Deutschland 2010

Schönheim ist ein Baumarktunternehmen, das 31 Geschäfte in Deutschland unter dem Namen Schönheim führt. In den Läden werden Gartenartikel, Farben/ Innendekoration, Werkzeuge/ Bauelemente, Sanitärartikel sowie entsprechende Dienstleistungen angeboten. Ein neuer Schönheim-Laden soll im kommenden Jahr auch in Trier seine Pforten öffnen. (kbs)

Figure G–3: Corporate message concerning fictional brand

Source: Own creation.

2.2. *Cover Stories Concerning the Real Retail Brand*

Praktiker ist ein Baumarktunternehmen das 330 Geschäfte in Deutschland unter dem Namen Praktiker führt. In den Läden werden Gartenartikel, Farben/ Innendekoration, Werkzeuge/ Bauelemente, Sanitärartikel sowie entsprechende Dienstleistungen angeboten. (kbs)

Figure G–4: Neutral message concerning real brand
Source: Own creation.

Praktiker als attraktivster Laden in Trier ausgezeichnet

TRIER. Die Industrie und Handelskammer (IHK) Trier hat in ihrem Handelskompass 2010 den Praktiker-Laden in Trier mit der besten Note in der Kategorie „Baumärkte" ausgezeichnet; Platz 1 weit vor konkurrierenden Läden.

Der Praktiker-Laden verdient die guten Noten zu Recht: Praktiker ist der attraktivste Baumarkt in Trier und unterscheidet sich ganz klar von seiner Konkurrenz.

Praktiker ist attraktivster Laden in Trier 2010

Rang	Unternehmen	Note
1	Praktiker	1,5
2	HORNBACH	2,5
3	hagebau	2,8

Quelle: IHK Trier 2010

Die Jury setzte sich aus 374 unabhängigen Experten und Konsumenten zusammen und beurteilte alle Baumärkte in Trier.

Der Praktiker-Laden in Trier ist eines von 330 Geschäften die das Unternehmen Praktiker in Deutschland führt. In den Läden werden Gartenartikel, Farben/ Innendekoration, Werkzeuge/ Bauelemente, Sanitärartikel sowie entsprechende Dienstleistungen angeboten. (kbs)

Figure G–5: Store message concerning real brand
Source: Own creation.

Praktiker als kundenorientiertester Baumarkt in Deutschland ausgezeichnet

BERLIN. Der Handelsverband Deutschland (HDE) hat das Unternehmen Praktiker als „Baumarkt des Jahres 2010" ausgezeichnet; Platz 1 weit vor den konkurrierenden Baumärkten.

Das Unternehmen Praktiker verdient die guten Noten zu Recht: Das Unternehmen überzeugt durch seine exzellente Kundenorientierung und hervorragende Mitarbeiterführung. Die Jury setzte sich aus 1.070 unabhängigen Experten sowie Konsumenten zusammen und beurteilte alle Baumärkte in Deutschland.

Praktiker ist ein Baumarktunternehmen das 330 Geschäfte in Deutschland unter dem Namen Praktiker führt. In den Läden werden Gartenartikel, Farben/ Innendekoration, Werkzeuge/ Bauelemente, Sanitärartikel sowie entsprechende Dienstleistungen angeboten. (kbs)

Unternehmen Praktiker "Baumarkt des Jahres 2010"

Rang	Unternehmen	Note
1	Praktiker	1,5
2	HORNBACH	2,5
3	hagebau	2,8

Quelle: Handelsverband Deutschland 2010

Figure G–6: Corporate message concerning real brand

Source: Own creation.