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ATTITUDE-BASED VERSUS CHOICE-BEHAVIOR-BASED SUCCESS OF BRAND EXTENSIONS**

ABSTRACT

This study compares the effects of brand extension success drivers across attitude-based and choice-behavior-based measures of extension success within the FMCG sector. Previous research considers different success measures in *separate* studies, focusing mainly on attitude-based measures. We suggest and empirically test different effects of commonly applied success drivers on one attitude-based and three choice-behavior-based extension success measures. Our findings imply that fit and parent brand strength may not be dominant success drivers in the context of choice-behavior-based success measures. Instead, marketing support for the extension product drives choice-behavior-based brand extension success.

JEL-Classification: M31.

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1 INTRODUCTION

Brand names, which are among the most significant assets of any firm, derive much of their value from their ability to launch new products through brand extension strategies (Klink and Smith (2001)). Previous research examines

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various drivers of brand extension success, including for example the impact of the fit between the parent brand (e.g., Coca-Cola) and the extension (e.g., new Lemon Coke) (e.g., Aaker and Keller (1990); Bottomley and Holden (2001); Broniarczyk and Alba (1994)). Yet most of these studies measure extension success only in terms of consumers' attitudes toward the extension, which researchers often conceptualize as consumers' perceptions of the overall quality of the extension (e.g., assumed quality of a photo processing service launched by the McDonald's brand) as perceived by consumers (e.g., Aaker and Keller (1990); Bottomley and Holden (2001)).

Although such attitude-based measures can provide important indicators of consumers' choice behavior, the attitude-behavior relation is not perfect and sometimes can be quite weak (Ajzen and Fishbein (1980); Wicker (1969)). Therefore, any empirical results obtained from attitude-based measures of brand extension success do not necessarily generalize to choice-behavior-based extension success measures. From a managerial perspective, it is interesting to examine consumers' choice behaviors toward an extension, because choice behavior relates directly to the extension's economic success in the marketplace. At the individual level, choice-behavior-based measures of brand extension success reflect consumers' intentions to choose the extension product as well as trial and repeat purchases of the extension (Czellar (2003)). At the aggregate level, choice-behavior-based measures involve the market share of the extension.

Few studies analyze choice-behavior-based extension success. Swaminathan, Fox, and Reddy (2001) and Kim and Sullivan (1998) measure trial and repeat purchases of extensions at the individual consumer level by using panel data. Other studies investigate aggregate economic outcomes of consumers' choice behavior, including market share or the advertising cost-to-sales ratio (Nijssen (1999); Reddy, Holak, and Bhat (1994); Smith and Park (1992)). Using a count of the number of significant (and non-significant) effects (*Table 1*) of those success drivers applied most often in previous research (i.e., fit between the parent brand schema and the extension, parent brand strength, and marketing support for the extension), we show that results on the effects of brand extension success drivers remain somewhat inconclusive when we compare studies that feature attitude-based success measures with those that use choice-behavior-based measures. For example, the fit between the parent brand and the extension emerges as a strong success driver in studies that consider attitude-based measures (e.g., Bottomley and Holden (2001); Völckner and Sattler (2006)), but its role in choice-behavior-based success measures remains unclear (e.g., Smith and Park (1992); Swaminathan et al. (2001)).

Table 1: A vote count of the number of significant (and non-significant) effects on brand extension success measures*

Success Drivers	Hypothesis	Brand Extension Success Measures							
		Attitude towards EP		Purchase Intention EP		Trial Purchase EP		Repeat Purchase EP**	
		Number of studies	P (ns)	Number of studies	P (ns)	Number of studies	P (ns)	Number of studies	P (ns)
Fit between PB and EP	+	22	18(4)	11	8(3)	2	1(1)	3	2(1)
Fit of EP and consumer	+	1	1(0)	1	1(0)	0	0(0)	1	1(0)
Attitude towards PB	+	14	12(2)	9	6(3)	2	1(1)	3	1(2)
Behavioral intentions	+	2	0(2)	2	2(0)	1	1(0)	2	1(1)
Perceived availability	+	3	3(0)	1	1(0)	1	1(0)	2	2(0)
Perceived advertising intensity	+	6	5(1)	3	3(0)	2	2(0)	3	3(0)

Notes: * We conducted an issue-by-issue search of six major marketing journals from 1987 forward (Journal of Marketing, Journal of Marketing Research, Journal of Consumer Research, Marketing Science, International Journal of Research in Marketing, Journal of the Academy of Marketing Science). In addition, we examined references from articles we had already obtained to find additional studies with estimates of the effects of brand extension success drivers on attitude-based or choice-behavior-based success measures.

EP = Extension Product; PB = Parent Brand; +: positive link between success driver and extension success measures; P: significantly positive effect ($p < 0.1$); ns: not significant; ** Including one study measuring repeat purchases in terms of stated repeat purchase probability (7-point rating scale).

To the best of our knowledge, no empirical research compares the effects of brand extension success drivers across attitude- and choice-behavior-based measures of extension success. Accordingly, Czellar (2003, 108) states: “No academic studies have systematically investigated the link between extension attitude and the marketplace behavior of the individual consumer.” Such research can provide insights into the extent to which results from studies that use attitude-based measures generalize to measures that link directly to economic behavior, such as purchases and repurchases of an extension product. For example, fit might have a strong impact on brand extension attitudes (e.g., Bottomley and Holden (2001)), but no significant effect on repurchase behavior, because its effect on repurchases might be dominated by the positive or negative experience obtained during the trial of the extension product.

Moreover, it is not obvious which type of brand extension success measure should be used in practice. Choice-behavior-based measures link directly to economic success, but they usually require an extension product that is already available in the marketplace. In contrast, attitude-based measures can apply to hypothetical extensions and therefore test brand extension success before the product is introduced to the market.

Against this background, we provide the first study to compare the effects of brand extension success drivers across attitude-based and choice behavior-based measures of extension success within a large-scale consumer survey. As brand extension success measures, we consider attitude toward the extension product and three choice-behavior-based measures: the stated intention to choose the extension¹, stated real trial purchase, and stated real repeat purchases. As brand extension success drivers, we examine those drivers most often applied in previous research, including the fit between the parent brand schema and the brand extension (see, e.g., Barone, Miniard, and Romeo (2000)), the fit between the consumer and the extension product (see, e.g., Hem and Iversen (2002)), parent brand strength (see, e.g., Aaker and Keller (1990)), and two dimensions of marketing support for the extension, namely advertising intensity and the availability of the extension in the distribution channel (see, e.g., Völckner and Sattler (2006)). Previous research analyzes these brand extension success measures and drivers in *separate* studies, but no study has compared the effects of the success drivers across different extension success measures. Therefore, we develop and empirically test hypotheses on the different effects of the success drivers on attitude toward, intention to choose, trial purchase, and repeat purchase of the extension product. Our study contributes to the branding literature by explicitly testing the effects of commonly used extension success drivers on different brand extension success measures.

The paper is organized as follows: In Section 2, we develop hypotheses on the different effects of brand extension success drivers on attitude-based versus choice-behavior-based measures of extension success. In Section 3, we present our research design, and in Section 4, the results of our study. Section 5 outlines the implications of our findings, limitations, and opportunities for further research.

2 HYPOTHESES

We consider three brand extension success drivers most often applied in previous research: the fit between the parent brand schema and the extension, parent brand strength, and marketing support for the extension. (For an overview see, e.g., Völckner and Sattler (2006) and Völckner and Sattler (2007).)

1 Purchase intention can also be interpreted as the conative component of attitude (e.g., Fazio (1986)) and might therefore be an attitude-based measure. However, we consider purchase intention a choice-behavior-based success measure, because it mimics real choice behavior more than attitude and depends on actual need for the product (Fishbein and Ajzen (1975); Kalwani and Silk (1982)).

2.1 FIT

According to schema theory, a brand is a mental category that represents consumers' beliefs about the brand. These beliefs depend on the attributes the consumer associates with the individual category members (e.g., products offered by the brand) (see, e.g., Boush and Loken (1991); Milberg, Park, and McCarthy (1997)). When consumers are presented with a new extension product, they try to integrate the product into their brand schemas to facilitate attitude formation toward the new item (Boush and Loken (1991)). Greater perceived fit between the new product and the brand schema leads to closer integration into the brand schema and, given positive brand associations, to a more favorable attitude toward the extension (e.g., Aaker and Keller (1990); Boush and Loken (1991); Bottomley and Holden (2001)). However, once the extension product has been integrated into the brand schema, the effect of perceived fit on consumers' evaluations of the extension should disappear (Klink and Smith (2001)). Categorization theory suggests that instead, a person automatically transfers his or her intentions toward a specific category (e.g., the parent brand) to the new member of that category (e.g., the extension product) (Aaker (1991)). Thus, by the time the extension product is integrated into the brand schema, the category associations and their transfer to the extension should become the dominant drivers of consumers' purchase intentions as well as trial and repeat purchases.

H₁: *Higher levels of perceived fit between the parent brand and the extension product lead to a more positive attitude toward the extension (H_{1a}), but have no effect on stated intention to choose (H_{1b}), trial (H_{1c}) or repurchases (H_{1d}) of the extension.*

2.2 PARENT BRAND STRENGTH

Brand extension strategies generally assume that if there is a successful categorization of the extension product as a member of the brand schema, then the extension product will benefit by receiving a transfer of the parent brand's strength. For instance, Smith and Park (1992) argue that compared with a low-quality brand, a high-quality parent brand can reduce the perceived risk associated with the buying decision and thus encourage consumers to try the extension product. Therefore, higher levels of parent brand strength should lead to more favorable evaluations of the extension product in terms of consumers' attitudes, purchase intentions (Bottomley and Holden (2001); Klink and Smith (2001)), and trial purchases (Swaminathan et al. (2001)). However, when it comes to repeat-purchase decisions, consumers can rely on experiences they have already had with the extension product. These experiences should offer a very strong informational cue (Ehrenberg (1974)), one which dominates most other information, including that provided by the strength of the parent brand.

H₂: *Higher levels of parent brand strength have positive effects on attitude toward (H_{2a}), stated intention to choose (H_{2b}), and trial of the extension (H_{2c}), but the level of parent brand strength has no effect on repurchases of the extension (H_{2d}).*

2.3 MARKETING SUPPORT

We consider two major aspects of marketing support: the availability of the extension in the distribution channel and the advertising intensity for the extension product.

Völckner and Sattler (2006) find a significant positive effect of the perceived availability of the extension product in the distribution channel on attitude toward the product. This availability might serve as an external cue of high product quality, because retailers are more likely to list better products than lower-quality products (Collins-Dodd and Louviere (1999)). In addition, mere distribution and perceived availability have positive awareness effects (Heeler (1986)) and may improve evaluations of the extension product. However, Völckner and Sattler (2006) test real (i.e., non-hypothetical) extensions. For hypothetical extensions not yet introduced in the marketplace, availability effects cannot occur. But even if an extension does appear in the marketplace, quality signal and awareness effects on extension success might be weak compared to the effects of other cues, such as parent brand strength, unless the extension reaches a critical level of availability. Products newly introduced on the market often receive only limited initial shelf space, so we expect that the effect of availability on attitude toward the extension or stated intention to choose the extension product will be dominated by other cues, such as parent brand strength. However, for trial or repeat purchases, availability becomes a far more important factor, because products that are not available or are hard to find on the shelf suffer lower chances of being chosen (Drèze, Hoch, and Purk (1994)). Hence:

H₃: *The level of perceived availability of the extension product in the distribution channel has no effect on attitude toward (H_{3a}) and stated intention to choose (H_{3b}) the extension, but higher levels of perceived availability of the extension product have positive effects on trial (H_{3c}) and repurchases of the extension (H_{3d}).*

Several studies indicate that advertising intensity has a significant positive influence on both attitude toward the extension and choice-behavior measures of brand extension success (Lane (2000); Reddy et al. (1994); Völckner and Sattler (2006)). Advertising spending by the company makes consumers aware of the performance bond at stake for the company (see, e.g., Wernerfelt (1988)). In turn, perceived advertising intensity can convey the quality and reputation of the product to consumers, who believe that only high-quality firms are profitable and can afford high advertising expenditures over the long run (Smith and Swinyard (1983)). According to empirical evidence, higher perceived advertising costs lead to more positive perceptions of the product (Kirmani (1990); Kirmani and Wright (1989)). In addition, several studies demonstrate empirically that advertising can have a strong effect on new product trial and repeat purchases (e.g., Ehrenberg (1974); Eskin and Baron (1977); Smith and Swinyard (1982)). Therefore, we expect the following:

H₄: *Higher levels of perceived advertising intensity have a positive effect on attitude toward (H_{4a}), stated intention to choose (H_{4b}), trial (H_{4c}), and repurchases (H_{4d}) of the extension.*

3 RESEARCH DESIGN

We select 20 real extension products of well-known parent brands. The latter have recognition scores higher than 50%, according to the results of a pretest with a convenience sample of 45 consumers. The extension products span the main product categories (according to sales volume as determined by ACNielsen) of the German fast-moving consumer goods (FMCG) industry. The product categories comprise food and non-food (detergents, cleaning agents and hygienic products) products. (See *Table 2*.) To ensure that participants realize that the products are new extensions, we focus on extension products that were launched just before the data collection.

Table 2: Parent brands and extension products

Parent brands	Category of parent brand's focal products	Category of extension products
Bertolli	Cooking oil	Balsamico vinegar
Bonaqua	Water	Sports drinks
Buitoni	Pasta	Pesto
Charmin	Toilet paper	Moist toilet paper
Coca-Cola	Soft drink	Flavored drinks
Danone	Yoghurt	Dairy health drinks
Duschdas	Shower gel	Deodorant
Funny-Frisch	Chips	Oven chips
Knorr	Convenience food (ready-to-serve meals)	(Vegetable) soup
Mars	Chocolate bars	Praline
Mister Proper	Household cleaning agent	Detergent
Mondamin	Sauce	Ready-to-use dough
Müller	Milk	Whey fruit drinks
Nescafé	Coffee beans and powder	Instant coffee
Nivea	Skin cream	Shower gel
Pringles	Chips	Salsa
Rama	Margarine	Light cream
Tempo	Tissues	Scented paper tissues
Uncle Ben's	Rice	Ready-to-use sauce
WC Frisch	In-tank toilet cleaner	Liquid antibacterial toilet cleaner

We obtained our data by using an Internet-administered consumer survey. To select respondents, we followed a quota sampling procedure, using a representative structure for typical FMCG consumers in Germany in terms of age, gender, and number of household members. Initially, we invited 1,500 respondents via e-mail to complete the online questionnaire and received 1,018 complete responses, which represents a return rate of 68%. Each respondent evaluated one of the 20 extension products. We

excluded respondents who indicated that they were not familiar, at least by name, with the extension product ($n = 35$) or not interested in the extension category ($n = 231$) from further analysis. Hence, our final effective sample comprised 752 respondents. Thus, our research focuses on new brand extension products that are already in the awareness set of consumers interested in the extension category.

Subjects evaluated their overall attitude toward the extension product on a seven-point scale (1 = dislike, 7 = like) adopted from previous studies (see, e.g., Broniarczyk and Alba (1994)). Another seven-point scale measured consumers' intention to buy the extension product, assuming they planned a purchase in this product category (1 = will certainly buy a competitor brand, 7 = will certainly buy the extension product) (see, e.g., Aaker and Keller (1990)). The respondents also indicated whether they had bought the extension product once (1 = trial purchase, 0 = no trial purchase) or more than once (1 = repeat purchase, 0 = no repeat purchase) over the course of a typical buying interval.

For the independent variables, we analyze several dimensions of fit, parent brand strength, and marketing support, all of which came from prior brand extension studies. Specifically, we measure the fit on two dimensions. The first focuses on the fit between the parent brand and the brand extension product and uses two items: "How similar are the quality levels of the parent brand and the extension product?" (1 = not at all similar, 7 = very similar; Park, Kim, and Kim (2002)) and "How similar are the product attributes of the parent brand's core product and extension product?" (1 = not at all similar, 7 = very similar; Barone et al. (2000)). Because the Cronbach's alpha is 0.67 and an exploratory factor analysis shows that 75.3% of total variance is explained, we average the items to provide a measure of the perceived fit between the parent brand and the extension (Churchill (1979)). The second dimension relates to the fit between the consumer and the extension product, as derived from relationship theory. The underlying logic is that consumers may form a close relationship with a certain brand (Aaker (1997)), and in turn may develop greater preferences for a specific brand if they perceive an overlap between their personality dimensions and the brand (Hem and Iversen (2002)). The congruence of consumers' self-image and the image of the brand extension (i.e., consumer-extension fit) should increase extension product success. We measure this second dimension of fit by using two items derived from Hem and Iversen (2002): the fit between an actual self-image and the brand extension product ("To what extent would you say that usage of the extension is closely connected to the picture you have of yourself as a person?" 1 = not at all similar, 7 = very similar) and the fit between an ideal self-image and the extension ("To what extent would you say that usage of the extension is closely connected to the picture you have of the person you would like to be?" 1 = not at all similar, 7 = very similar). The Cronbach's alpha is 0.55, and the exploratory factor analysis explains 68.7% of total variance. Therefore, we average the two items to provide a measure of fit between the extension product and the consumer.

We examine parent brand strength on two dimensions. The first focuses on the consumer's attitude toward the parent brand, measured with a multi-item scale adopted from Mitchell (1986) ([Parent brand] is ... 1 = unlikeable, 7 = very likeable; 1 = very bad, 7 = very good; 1 = displeasing, 7 = very pleasing). The Cronbach's alpha

is 0.92 and the exploratory factor analysis explains 86.43% of total variance, so again we average the items to provide a measure of attitude. The second dimension relates to behavioral intentions toward the parent brand and consists of two items: “Compared to other brands, it is much to my regret if the parent brand is not available in my supermarket” (1 = strongly disagree, 7 = strongly agree) and “Compared to other brands, I am willing to pay a price-premium for parent brand” (1 = strongly disagree, 7 = strongly agree) (Ailawadi, Lehmann, and Neslin (2003)). Again, we average the two items because the alpha coefficient is high (0.84), and the exploratory factor analysis explains 86.48% of total variance.

To measure the perceived availability and perceived advertising intensity of the extension, we use two items for each dimension (Völckner and Sattler (2006)): “[Extension product] is available in many supermarkets” (1 = strongly disagree, 7 = strongly agree), “On my last shopping trip, [extension product] attracted my attention very much” (1 = strongly disagree, 7 = strongly agree), “[Extension product] is well supported in terms of advertising” (1 = strongly disagree, 7 = strongly agree), and “How often did you notice advertising for [extension product] in the last months?” (1 = not at all, 7 = very often). The Cronbach’s alphas are high: 0.91 for the two availability items and 0.71 for the two advertising items. The exploratory factor analyses explain 91.7% (availability) and 77.8% (advertising). Therefore, we build a mean index for both marketing mix instruments.

Table 3 reports the descriptive statistics for the success drivers and the four success measures.

Table 3: Descriptive statistics

		Mean	Standard Deviation
Fit	Fit between PB and EP	4.801	1.295
	Fit of EP and consumer	3.488	1.311
PB Strength	Attitude towards PB	5.207	1.141
	Behavioral intentions	3.516	1.656
Marketing Support	Perceived availability	3.394	1.772
	Perceived advertising intensity	3.725	1.466
Metric Success Measures	Attitude towards EP	4.424	1.539
	Purchase intention EP	3.963	1.778
Relative Frequency			
Binary Success Measures	Trial purchase EP	1 = trial purchase: 41.1%; 0 = no purchase: 58.9%	
	Repeat purchase EP	1 = repeat purchase: 13%; 0 = no repeat purchase: 87%	

Notes: EP = Extension Product; PB = Parent Brand.

We apply path analysis modeling to estimate (i) the effects of the success drivers on attitude toward, stated intention to choose, and trial purchase of the extension product as well as (ii) the relations among these three success measures (as a funnel) by using the software application Mplus (for the use of Mplus for binary and metric data see Muthén and Muthén (2007))².

For the repeat purchase stage, we apply a binary logit regression model to explain group membership (1 = repeat purchase, 0 = no repeat purchase) according to the brand extension success drivers, again using the software application Mplus. We split the model estimation into these two submodels because of the very low frequency of repeat purchases ($n = 98$) compared to no repeat purchases ($n = 654$)³. However, even if we estimate one single model using the software application Mplus, all effects remain robust. But because the overall model fit significantly decreases, we opt to present the results of the two submodels.

4 RESULTS

We first check the overall fit of the two models. Model fit is satisfactory for the path analysis model (root mean square error of approximation [RMSEA] = 0.038, comparative fit index [CFI] = 0.998, and Tucker-Lewis index [TLI] = 0.969; Hu and Bentler (1995)). Moreover, *Table 4* shows that the repeat purchase model fits the empirical data significantly better than does the corresponding null model. Nagelkerke's R^2 also indicates satisfactory goodness of fit for the repeat purchase model (Cox and Snell (1989); McFadden (1974)). Furthermore, the correct classification rates exceed their corresponding proportional chance criterion, which suggests the moderate-to-good prognostic ability of the binary logit regression model (Hosmer and Lemeshow (2000)).

In *Table 4*, we report the standardized parameter estimates. We find significantly positive effects on consumers' attitudes towards the extension for both the fit between the parent brand and the extension product and the fit between the consumer and the extension product on consumers' attitudes towards the extension. Thus, consistent with

2 As recommended in the literature, we apply a robust weighted least squares estimator (maximum likelihood with robust standard errors based on a numerical integration algorithm) and use Delta parameterization, where scale factors for continuous latent response variables of observed categorical dependent variables are allowed to be parameters in the model, but residual variances for continuous latent response variables are not (Muthén and Muthén (2007)).

3 We do not consider any interaction effects because previous studies (e.g., Völckner and Sattler (2007)) indicate that interaction effects play a relatively minor role in driving brand extension success (in comparison to the success drivers' main effects).

prior studies that use attitude-based measures of extension success (see *Table 1*), H_{1a} receives support⁴.

Table 4: Results of path analysis and binary logistic regression models

		Path Analysis Model			Binary Logistic Regression Model
		Attitude towards EP	Purchase Intention EP	Trial Purchase EP	Repeat purchase EP
		Estimate	Estimate	Estimate	Estimate
Fit	Fit between PB and EP	0.158***	0.011ns	−0.041ns	0.079ns
	Fit of EP and consumer	0.444***	−0.007ns	0.052ns	0.200ns
PB Strength	Attitude towards PB	0.182***	0.054ns	−0.049ns	−0.078ns
	Behavioral intentions	0.032ns	0.247***	0.205***	0.425***
Marketing Support	Perceived availability	0.074**	0.031ns	0.412***	0.497***
	Perceived advertising intensity	0.047ns	−0.019ns	0.075ns	0.298***
		Root Mean Square Error of Approximation = 0.038 Comparative Fit Index = 0.998 Tucker-Lewis Index = 0.969			−2LL: 442.888 Likelihood-Ratio-Test: 139.15*** Nagelkerke R^2 : 0.314

Notes: EP = Extension Product; PB = Parent Brand; *** significant at $p < 0.01$; ** significant at $p < 0.05$; ns: not significant.

⁴ Attitudes of consumers who have already tried the extension product may differ from those who have not tried it yet. Thus, as a robustness check, we also estimate the effects of the success drivers on consumers' attitudes toward the extension product using only the subsample of those respondents who had not tried the extension product. The only difference relates to the effect of perceived availability being significant ($p < 0.05$) in the total sample and not significant in the subsample. All other effects remain robust. In a second robustness check we compare the repeat purchase model based on the total sample as reported in *Table 4* and a model that contrasts trial versus repeat purchases (and excludes those respondents who had not tried the product before). The effects almost remain the same (all effects that are significant (not significant) in the sub-sample are significant (not significant) in the total sample). Hence, our results are robust across databases.

Furthermore, we find no significant effects of the two fit dimensions on purchase intention, trial or repeat purchases. These findings support H_{1b} , H_{1c} , and H_{1d} . A handful of previous studies considered the effects of fit on these three success measures. In line with our results a relatively high proportion of these few studies also found non-significant effects (*Table 1*). The fit cue seems to drive the integration of the extension product into the brand schema. But its influence diminishes when it comes to consumers' purchase intentions or trial and repeat purchases. Thus, findings regarding the effects of fit on extension success that have come from attitude-based success measures do not seem to generalize to purchase intentions or actual purchase decisions (trial and repeat).

The effects of parent-brand strength on attitude toward the extension product as well as purchase intention, trial, and repeat purchases of the extension depend on the dimension of parent-brand strength considered (*Table 4*). The results show a significant positive relation between attitude towards the parent brand and attitude towards the extension product (in line with previous studies, see *Table 1*), but no significant effects of attitude towards the parent brand on purchase intentions, trial, and repeat purchases. In line with the latter result a relatively high proportion of the few previous studies that considered the effects of attitude towards the parent brand on purchase intentions, trial, and repeat purchases also found non-significant effects (see *Table 1*). Instead, we see that consumers' behavioral intentions towards the parent brand significantly affect their behavioral intentions (here: purchase intention) or actual behavior (here: trial and repeat purchases) towards the extension product, but they do not influence consumers' attitudes towards the extension. These findings seem to imply that the relations between *attitude-based (behavioral-intention-based)* measures of parent brand strength and *attitude-based (choice-behavior-based)* measures of extension success are strong. In contrast, the relations between *attitude-based (behavioral-intention-based)* measures of parent brand strength and *choice-behavior-based (attitude-based)* measures of extension success are not necessarily strong. Overall, the hypotheses H_{2a-d} receive partial support. According to our results, even repeat purchases can be influenced by parent brand strength.

The availability of the extension product significantly affects trial and repeat purchases, but does not affect consumers' purchase intentions. These findings support H_{3b} , H_{3c} , and H_{3d} . The significant positive effect of perceived availability on attitude towards the extension indicates that availability in the distribution channel could serve as a bond or signal for product quality even in consumers' attitude formation processes.

Perceived advertising intensity for the extension product has a significant effect only on repeat purchase ($p < 0.01$) and no significant effects on trial, attitude, or purchase intention. This finding supports only H_{4d} . The non-significant effects might reflect the restriction of our analysis to those customers who were already familiar, at least by name, with the extension product. Advertising might trigger awareness effects (which we do not analyze in our study), but *Table 4* shows that we do not find any advertising effects on attitude, purchase intention, or trial, because respondents were already aware of the extension product. Our findings agree somewhat with theoretical and empirical

evidence that advertising mainly works after the initial product trial to reinforce consumers' repeat buying habits (Ehrenberg (1974)).

To test for category effects found in previous studies (e.g., Völckner and Sattler (2007)), we split our sample of extension products into two subgroups, food and non-food (detergents, cleaning agents, and hygienic products) products and estimate the models for each subgroup separately. We establish almost the same results when we estimate the effects in the two subgroups compared with the effects at the level of the overall sample. We observe changes from significance to non-significance or vice versa for only seven out of a total of 52 effects. Thus, the results of the subgroup analysis support the results of our first analysis. That is, the effects of the success drivers in *Table 4* generalize to a large degree across food and non-food products.

5 DISCUSSION

In this study we compare the effects of brand extension success drivers across attitude-based and choice-behavior-based measures of success. We develop and empirically test hypotheses on the divergent effects of various dimensions of fit, parent brand strength, and marketing support on four extension success measures. Prior research focuses mainly on attitude-based measures and identifies fit and parent brand strength as the most important brand extension success drivers. Our study replicates these findings to some extent, but we also show that fit and parent brand strength are not the dominant drivers of success measures that feature trial and repeat purchases. The only exception we find is the significant effect of behavioral intentions toward the parent brand (e.g., willingness to pay a price premium for the parent brand, regret if the parent brand is not available) on trial and repeat purchases of the extension. The positive effect on repeat purchases diverges from prior research (e.g., Swaminathan et al. (2001)). However, our measure of behavioral intention toward the parent brand differs from the parent brand experience previously analyzed (Swaminathan et al. (2001)), which reflects the number of purchases people have made. Instead, our measure indicates whether people assign a (monetary) brand equity to the brand. Respondents who hold strong behavioral intentions in terms of price and quantity premiums are more likely to repurchase the extension product. A strong parent brand experience might not have the same effect, because only some people who frequently buy the parent brand also hold strong behavioral intentions. Neither fit nor attitude toward the parent brand has significant effects on trial or repeat purchases. Instead, distribution support and advertising intensity represent the significant drivers of extension success when it comes to trial and repeat purchases.

Our study offers important implications on the generalizability of brand extension research. Many studies indicate that the fit between the parent brand and the extension or the strength of the parent brand drive brand extension success, as measured by attitude toward the extension (see, e.g., Aaker and Keller (1990); Bottomley and Holden (2001); Boush and Loken (1991); Boush et al. (1987); Broniarczyk and Alba (1994); Kirmani et al. (1999); Völckner and Sattler (2006)). Although we can replicate these specific findings, we do not find significant effects for the fit or parent brand strength variable on trial and repeat purchases of the extension product. Apparently the effects of brand extension success drivers on attitude-based measures do not necessarily translate into choice behavior.

In terms of marketing practice, managers should recognize that findings obtained from attitude-based measures of brand extension success do not necessarily translate to consumers' choice behavior. Therefore, prior to their market introduction, concept tests of hypothetical extensions should be based on choices (e.g., simulated test markets, choice experiments) rather than on attitude-based measures of brand extension success. Furthermore, instead of focusing on fit and parent brand strength as dominant drivers of extension success, managers might consider marketing support as an alternative yet critical driver.

In terms of its limitations, our research focuses solely on FMCG, but further research might investigate the extent to which our findings generalize to other fields, such as consumer durables or services in which the competitive structure might be different compared to nondurable consumer goods. According to our vote-count analysis, the effects of the availability of the extension product in the distribution channel and the advertising intensity for the extension product on extensions success are particularly under-researched and should become another focus of future studies. Furthermore, our research considers a main-effects-only model in line with a preferably parsimonious modeling approach. Further research could extend our model by investigating possible structural relations among the success drivers. Finally, our research focuses on stated purchases. Future research might combine consumer survey data on the success drivers, consumers' attitudes toward the extension product, and their intention to choose the extension with transaction data (trial and repeat purchases or market shares).

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