

Scale Development for Consumer Confusion

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INTRODUCTION

Consumers experienced an unrivalled expansion of options with reference to entertainment, lifestyle, and working life within the last decades. Just consider of the countless TV stations, the ever increasing choice of sodas or the numerous working models. This rising freedom is often associated with a higher standard of living. Consumers are gaining power—this popular development is called consumer democracy (cf., Bosshart 2004). Not retailers determine what consumers buy, but consumers themselves. But as Caldwell recently pointed out (2004), most people are terrible choosers. As freedom of choice is accompanied with abandoning traditions and habits, one is required to get involved with the single offers in an increasing assortment pool. Years ago, for example, buying a Coke was not a challenge. Today, one has to choose between 15 or more varieties (among brands: e. g., Coca Cola, Pepsi, Virgin Cola but also within product lines: e. g., Coca Cola Vanilla, Crystal or Diet). Thereby, most consumers are driven to make the right choices. This “tyranny of choice”—as Barry Schwartz (2004) named the phenomenon of increasing choices and consumer suffering—can cause Consumer Confusion. Consumers are not able to choose efficiently anymore. Which of the 200 TV-channels complies with my needs tonight? What is the difference between the two most common types of coffee (Robustica and Arabica)? Which components are essential for a home computer? These mainly rudimentary examples indicate, that the explosion of choice plays an important role in confusing consumers. Malhotra (1984) demonstrated that product variety in retail environments leads to a higher decision density for consumers which can “result in a variety of dysfunctional consequences such as *confusion*, panic, perplexity, frustration and withdrawal” (Malhotra 1984, 14).

Not only the increasing options but all stimuli generated by marketing instruments are potential causes for Consumer Confusion. Missing quality references, frequent price changes or complex indications of product compositions are store environment stimuli that may cause confusion. Of course, consumers are able to adapt to any environment but retailers are thereby confronted with negative consequences. Due to reduction strategies (simplification of purchase decisions), consumers often abandon their purchase intention or make their decision by means of just a few criterions (e. g., price).

There is clearly need for research on this issue: “While the design of pleasant retail environments is certainly a pertinent marketing goal, it might be also useful to study the darker side of the shopping experience and try to identify the environmental elements that create negative consumer feelings during shopping” (D’Astous 2000, 149). Our study intends to follow this direction for future research. Based on qualitative and quantitative studies, a scale measuring Consumer Confusion is developed. On one side, the measurement instrument provides a basis for future research, investigating interrelationships between different groups of consumers or different industries, and on the other, it offers retailers a tool that can be employed to observe current triggers of confusion. By identifying these key elements, retailers are given a guidance for their strategy development and consequently, for profiling their stores.

The paper is divided into three major sections. First, we discuss previous research that has been conducted concerning

consumer confusion. In this first section, we identify factors which conceptionally lead to Consumer Confusion. Secondly, we present our qualitative findings on confusion triggers and subsequently, we depict the quantitative study that allowed us to develop the scale for Consumer Confusion. Finally, we discuss the general implications of our findings and point out directions for future research.

LITERATURE REVIEW

Consumer Confusion as a phenomenon of its own is not yet considered in well-established consumer behavior scholar books (e. g., Assael 1997; Blackwell, Miniard, and Engel 2001). Nevertheless, confusion triggers have been mentioned in the marketing literature for quite a long time, but either in other respect or in a very isolated manner.

Trade-mark infringements enforced research efforts concerning the physical similarity of original brand and me-too products (c.f., Miaoulis and D’Amato 1978; Loken, Ross and Hinkle 1986; Foxman, Muehling and Berger 1990; Kapferer 1995). Because consumers transfer attributes (e. g., quality, functionality) from the original brand to imitational products if similarity is given, manufacturers of original products had-and still have-a strong interest to restrain copycats. The research process enabled the judges to settle objectively disputes of manufacturers in courtrooms. Still prominent is the action “Tic Tac vs. Mighty Mints” which was taken place in the seventies. This biased perception is called *Brand Confusion* (Mitchell and Papavassiliou 1999, 320). While research on Brand Confusion exclusively focuses on the physical similarity of products, research on Consumer Confusion extends this research interest by capturing the store environments multi-dimensionality. While Brand Confusion predominantly concerns (legal) issues between manufacturers, Consumer Confusion originates at the store and involves retailers’ as well as consumers’ behavior.

Having recognized, that a store *environment* does have a substantial influence on shopping (and in particular choice) behavior, environment psychologists urged to focus on confusion triggers other than just product appearance (c.f., Berlyne 1960). Subsequently in retail management, researchers dealt amongst other variables with the effect of music (c.f., Yalch and Spangenberg 1990), colors (c.f., Bellizzi, Crowley, and Hasty 1983), light (c.f., Areni and Kim 1994) and scent (c.f., Mitchell, Kahn, and Knasko 1995). Although this research stream has isolated the effects of particular environmental stimuli to date, there is not much understanding of which elements in the retail atmosphere are most salient to consumers when forming an approach-avoidance evaluation (Turley and Milliman 2000). However, to create successful marketing measures, it is crucial to understand what (combination of) variables contribute to an orienting/confusing environment which subsequently leads to approach/avoidance behavior. Furthermore, consumers don’t perceive an environment element (e. g. scent) in an isolated manner when entering a store. The perception is affected by versatile interacting components. In order to evaluate a store’s potential to confuse consumers, the focus has to be on the environment (including perceivable signals of all marketing instruments).

Mitchell and Papavassiliou (1997 and 1999) first initiated a holistic consideration of Consumer Confusion. They widened the research interest from the rather tight perspective of trade-mark infringement to a more holistic discussion including additional

triggers of confusion in a store environment. They speak of product, price and promotional confusion. Even though, their research broadened the perspective on a relevant phenomenon that has not received sufficient attention in the past, proximate research mostly neglected the conceptual work of Mitchell and Papavassiliou—with the exception of Walsh (2002). However, the latter still focuses on product performance. The factors stimuli similarity, stimuli overload and stimuli ambiguity emphasize merely the emergence of confusion due to characteristics of the perceived assortment in a store (e. g. similarity or variety of products).

So from our point of view a *conceptual and empirical analysis of all potential confusion triggers* in a store environment has not yet been conducted. This step seems in particular crucial because the rising degree of competition has led many retailers to intensify their marketing efforts without understanding its (*potentially negative*) impact on consumers (e.g. due to inconsistency or untrustworthiness of the efforts, c.f. Bitner 1992). For instance, many European retailers tried to meet the emerging customer need for environment friendly products. To give consumers orientation, retailers introduced new product labels. Indeed, labelling products enhances mental convenience but since each retailer initiated many equivalent labels for different product ranges using even different assessment standards, the marketing effort lost credibility and entailed confusion. By introducing the Consumer Confusion phenomenon, we want to sensitize retail industry to select marketing measures wisely and in line with their strategy. To do so, retailers need a scale to measure Consumer Confusion in order to assess the impact of (newly introduced) marketing activities.

In order to develop a relevant scale for Consumer Confusion we define the phenomenon as a *result of a temporary exceedance of an individual capacity threshold for absorbing and processing environment stimuli. Consumer Confusion is an emotional state that makes it difficult for consumers to select and interpret stimuli.* The failure of proper information selection leads to lower decision quality or efficiency respectively. Referring to the optimal stimulation level theory (cf., Raju 1981), consumers lose steadily orientation as soon as an individual critical threshold (by means of stimuli intensity) is exceeded. As this threshold is individual and relatively stable, consumers get confused at different levels of stimuli intensity. Up to this optimal stimulation level, consumers are indeed in search of surprising or dynamic stimuli (e.g., promotions or new products). But exceeding the critical threshold, consumers get confused gradually. By specifying stimuli that trigger this exceedance, we provide an instrument to regulate the stimuli intensity in a retail environment. This measure is crucial considering that consumers perceive confusion as a negative emotional state. Nonetheless, through specific behavior patterns (e.g., selective perception), consumers are able to regain an optimal stimulation level. However, this entails a creeping consumer reticence (due to an increasing loss of motivation to approach unknown stimuli), which reflects in stagnating/declining sales. In other words, stimulation is positive up to a certain threshold. Beyond that point, the perceived stimulation intensity turns successively into Consumer Confusion and symptoms of consumption fatigue.

CONCEPTIONALIZATION

For conceptionalization, we have to identify factors accounting for stimuli intensity within an environment, and thus mapping the assumed structure of the hypothetical construct of Consumer Confusion. The assumption is, the higher the stimuli intensity of an environment, the higher the potential for Consumer Confusion. The intention is that the items, generated by the qualitative study, may be assigned to exactly one of these subsequent conceptually identified factors.

Mitchell and Papavassiliou (1997, 1999) and Walsh (2002) first dealt with marketing related triggers of Consumer Confusion. The authors tie in with the research findings of cognitive psychologists, referring to the information-overload studies of Jacoby (1977) and Malhotra, Jain and Lagakos (1982). Confusion is seen to originate from product overchoice and the information carried on products, hence triggers of confusion turned out to be “stimulus overload”, “stimulus similarity” and “ambivalent, misleading or inadequate information”. Since the determination of these factors took place with a strong focus on products and furthermore originates primarily in the discipline of cognitive psychology, we recognized the need to expand this perspective. Thereby, we came across environmental psychology, which comprises cognitive and emotional consumer responses and entails all elements perceived by consumers in a retail store. We targeted all factors that are capable of increasing the *information rate*.

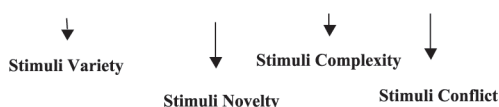
As essential factors for the information rate, Wohlwill identified mainly “variation”, “novelty”, “complexity”, “incongruence”, “intensity” and “surprise” in his first article (1966). In his second contribution (1974), he condensed the factors to three variables: “intensity”, “variation” and “patterning”. Even before, Berlyne (1960) has documented-exploring stimulus patterns which affect stimulus selection-very similar variables: “novelty”, “uncertainty”, “conflict” and “complexity”. “Uncertainty” can be seen as equivalent to Wohlwill’s “variety” (see FIGURE 1), because Berlyne defines “uncertainty” by the “range of alternative options” (Berlyne 1960). Mehrabian and Russell (1974) continued with the variables identified by the psychologists Wohlwill and Berlyne respectively and developed a unidimensional explanation of the complex stimuli constellation in a retail environment. The concept of information rate integrates all single stimuli within a specified environment and allows a classification by means of the stimuli’s effect on consumers. Mehrabian and Russell (1974) characterized the information rate by the factors “novelty” (unusual and surprising stimuli) and “complexity” (number and changes of stimuli). The information rate is, generally speaking, defined as the sum of information per time unit contained in the environment (see also Raju 1981; Steenkamp, Baumgartner, and Van der Wulp 1996). In other words, the more unfamiliar and the more complex an environment is perceived by consumers, the higher their individual perceived information rate.

Figure 1 summarizes all relevant factors identified by the most important researchers in the discipline of environmental psychology and Consumer Confusion. Interestingly, the Consumer Confusion research approach regards “overload” and “similarity” as isolated dimensions. However, empirical evidence shows that the more items in a product line (even though they objectively differ from each other), the more alike consumers perceive them (Bijmolt et al. 1998). This finding indicates not to address “stimuli overload” and “stimuli similarity” in an isolated way. Furthermore, the factor “surprising” can be expressed by “novelty”, and “intensity” describes the intenseness of the information rate as a whole. We finally identified four constitutive factors for characterizing the information rate, which are widely recognized in environment psychology literature: “stimuli variety”, “stimuli novelty”, “stimuli complexity” and “stimuli conflict”.

Stimuli variety refers to the number of alternative options within an environment. Thereby the options can also be non-decisional like ceiling dangles or technological applications. Stimuli variety arouses uncertainty about matching the options with the own needs. Consumers do not have any cognitive patterns for unknown stimuli yet. These situational effects are subsumed in the factor *stimuli novelty*. Diffuse and unclear perceptions of objects cause for *stimuli complexity*. Thereby not the amount but the quality

FIGURE 1
Conceptualising the Information Rate

EP	Berlyne 1960	Uncertainty	Novelty	Complexity	Conflict		
EP	Wohlwill 1966 and 1974	Variety	Novelty	Complexity	Incongruence	Intensity	Surprising
EEP	Mehrabian and Russell 1974		Novelty	Complexity			
EEP	Donovan and Rossiter 1982	Variety	Novelty		Irregularity		
CEP	Bost 1987	Variety	Diversity				Surprising
CEP	Gröppel 1991		Full of life				Surprising
CC	Mitchell and Papavassiliou, 1997 u. 1999	Overchoice Product Similarity		Ambiguous, misleading or inadequate information			
CC	Walsh 2002	Stimulus Overload Stimulus Similarity		Stimulus Ambiguity			



EP = Environmental psychology
 EEP = Emotional environmental psychology
 CEP = Cognitive environmental psychology
 CC = Consumer Confusion

of the subjectively perceived stimuli raise complexity. There is a need for more cognitive effort to comprehend the immediate environment or parts of it. *Stimuli conflict* at last is characterized by two or more similar distincted stimuli. There is more than one appropriate stimulus to solve decision problems.

RESEARCH APPROACH AND METHODOLOGY

Although research has been done in operationalizing Consumer Confusion, it has never comprised all environmental stimuli. Dominantly, the focus was set on products (e. g., similarity and overchoice) or information on products (e. g., similarity and overload). Confusion triggers emerging from other marketing instruments (e. g., store personnel, price strategy) are often not considered. We strive to identify precise triggers of Consumer Confusion within a retail environment. Thereby we specify factors based on the above mentioned research, but determine their indicators by means of qualitative research and with a specific focus on shopping behavior.

The scale development process (see FIGURE 2) thereby relies on widely accepted paradigms provided by Churchill (1979) and applied or reviewed by Peter (1981), Anderson and Gerbing (1982), Gerbing and Anderson (1988), as well as Baumgartner and Homburg (1996).

To describe the complexity of the Consumer Confusion phenomenon, we accomplished a conceptual analysis. On the basis of the conceptual conclusions, we conducted four focus groups to operationalize the identified theoretical factors. This procedure ensures the generation of an initial pool of items. Subsequently, we purified the Consumer Confusion scale by exploratory and confirmatory factor analysis. The qualitative and quantitative analyses are discussed in detail in the following sections.

QUALITATIVE ANALYSIS

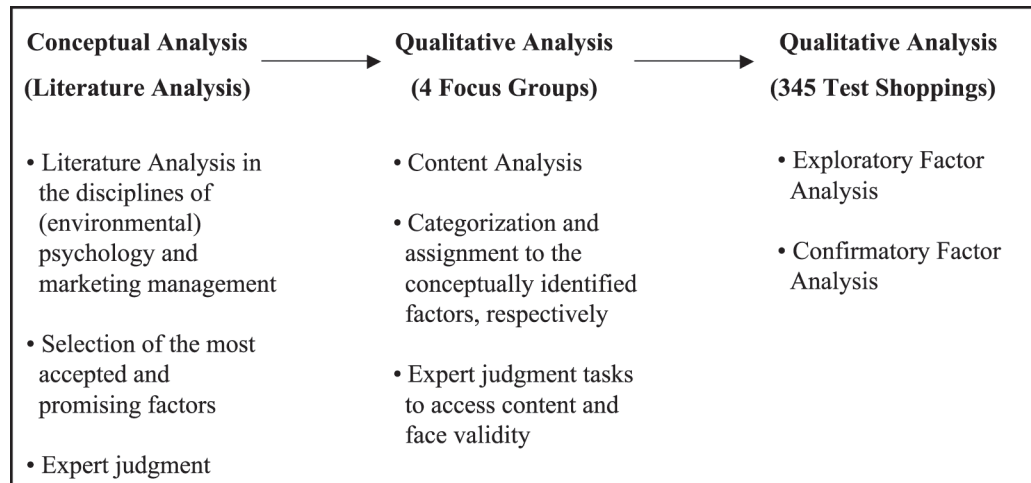
Vaughn, Schumm, and Sinagub (1996) have characterized focus groups as a valid method for learning about participants'

conceptualisations of particular phenomena. Through participant interaction, it's possible to gain insights into individual experiences (Steward and Shaqmdasani 1990). These anecdotes-related to confusion triggers during grocery shopping-account for the generation of relevant items. Content analysis of the focus group discussions form a systemized procedure to identify these items which subsequently can be used to develop a questionnaire for the quantitative study (cf., Greenbaum 1988; Wolff, Knodel and Sittitrai 1993; Nassar-McMillan and Borders 2002). This procedure assures that conscious and unconscious facets of the research interest are gathered in the questionnaire: "The presence of others leads individuals to focus attention on themselves and increases self-awareness and thought about one's own attitudes and feelings" (Bristol and Fern 1993, 445).

To allow for a high content validity, we conducted a pilot test conducting a focus group with four consumers. Consequently we had to slightly interchange some questions in order to guarantee an efficient discussion. Ensuring a representative sample of shoppers, respondents were recruited with regard to customer demographics (obtained by analysing the loyalty card data base of a dominant Swiss grocery store—over 80% of the sales volume is generated by loyalty cards) of the grocery store concerning gender, age and, size of household. The final sample included 14 women and seven men, ranging from 20 to 63 years of age. 11 consumers stemmed from family households, six from single households and the rest from apartment-sharing communities.

The moderator of the focus groups was given a semi-structured discussion guideline. First, the respondents were provided with a brief introduction to the research content and goals. To open the discussion, participants spontaneously had to think of sources of confusion in a retail environment (cf., Fern 2001). Respondents were subsequently asked to recall appendant shopping situations. The interviewers were instructed to ask follow-up questions to ensure that the potential confusion triggers are identified non-ambiguously. All four focus groups were recorded and transcribed.

FIGURE 2
Scale Development Process



Following the process of Mayring's (2003) qualitative content analysis, the transcribed focus group discussions were reduced to relevant indicators, which consequently were assigned to the four factors gained by the conceptual analysis earlier on. Four faculty members familiar with the research project conducted this process independently. A closing discussion led to a minimization of the disagreements. The initial item-generation process produced 26 items: three items for stimuli variety, eight items for stimuli novelty, three items for stimuli complexity and three items for stimuli conflict. A pool of nine items was not assignable to the four initial and conceptually identified factors representing the information rate. Because three, respectively six, non-classified items could easily be subsumed as component elements to a subordinate factor, two new factors called "stimuli comfort" and "stimuli reliability" were created. The initial pool of 26 potential scale items was submitted to a multi-sample scale purification process, which is described next.

QUANTITATIVE ANALYSIS

Scale purification is accomplished with detailed item analyses, exploratory factor analyses, confirmatory factor analyses, and an initial assessment of scale reliability and unidimensionality. We thereby follow the suggestions of Churchill (1979) and Gerbing and Anderson (1988) to item reduction and to assess factor structure. The quantitative study is based on the findings of the qualitative analysis. Thereby, environmental psychologists usually accomplish their empirical considerations by observing individuals in their *behavioural context* (e. g., Donovan et al. 1994; Ittelson et al. 1977; Turley and Milliman 2000).

In order to confront consumers with real shopping situations, we conducted a "buying test" (c.f., Titus and Everett 1996). We provided consumers with a predetermined shopping list, asking them to look for specific groceries within the store. In that way, test persons were immediately confronted with the store environment (e.g., product offering, advertising message) and subsequently with potential confusion triggers. The shopping list is thereby considered relevant, because "if shoppers are familiar with the store, they may experience preconditioned emotional approach or avoidance responses that would override or even hinder the emotions induced by the store atmosphere. Therefore, the validity of the study may be affected" (Tai and Fung 1997, 335). Shopping routines are often expressions of (unconscious) avoidance behavior. Consumers learn

to act in a certain way in order to shelter themselves from too many stimuli and subsequently keep this behavior routine for a (long) period of time—thus there is hardly any cognitive effort in deciding for a product. However, these "reduction strategies" do not constantly prevent consumers from confusion: through marketing measures like product relaunches or changes in product packaging, just to name two, consumers' reduction strategies can become obsolete. This is why we used a shopping list. The list breaches the consumers' routines and confronts them with all environmental stimuli—they now have to newly evaluate the product offer. However, we only considered everyday products for the list (mustard, jam, sweets, grapes, tea filter, salmon). For content validity, three experts judged the questionnaire and the buying test and we conducted a pilot test on 105 consumers in a grocery store. Subsequently five questions had to be rewritten, due to misunderstanding.

The shopping test was carried out in 15 grocery stores of the same retail chain. Again, we recruited consumers regarding age, gender and size of household. To avoid a high rejection rate (because the shopping test takes 25 to 35 minutes), consumers were recruited face-to-face one week earlier at the check out of the respective stores. First, respondents were given the shopping list. After the shopping tour, they were provided with a paper copy of the self-administered questionnaire. This questionnaire contained the 26 confusion trigger items (seven-point Likert-type agree-disagree response format) we identified conducting the focus groups, as well as questions on age, income, gender and size of household. A total of 350 questionnaires were returned. Five of them were judged unusable. Therefore, we ultimately had 345 valid questionnaires in hand.

For *item analysis* we examined the corrected item-total subscale correlation for each set of items representing an assumed factor of Consumer Confusion in advance. Items that do not meet a corrected item-total correlation above .50 are candidates for deletion (Zaichowsky 1985). Non of the Items were below this threshold. Furthermore, the correlations for items with their hypothesized dimensions were compared with their correlations with the remaining dimensions (cf., Bearden, Netemeyer and Teel 1989). Items, that did not show statistically higher correlations with the dimensions to which they were hypothesized to belong to, are subject to deletion. The procedure resulted in no deletion of items.

The remaining pool of 26 items was subject to *exploratory factor analysis* with principal component factoring and oblique

TABLE 1
Exploratory Factor Analysis

Exploratory factor analysis results							
Item No.	Items	Stimuli Variety	Stimuli Novelty	Stimuli Complexity	Stimuli Conflict	Stimuli Comfort	Stimuli Reliability
1	To me, there are too many products to choose from	.76	.30	.15	.28	.05	.09
2	It is not easy, to choose between similar products	.81	.10	.23	.22	.07	-.04
3	Products often seem similar but are not	.67	.22	.08	.08	.15	.31
4	Products in favour are often replaced too frequently	.25	.69	.20	.04	.06	.13
6	Products I'm looking for are often missing in store shelves	.16	.65	.18	.05	.06	.35
7	I frequently have to get used on new labels/promotion programs	.16	.68	.37	.25	.03	.17
8	Shelves and/or products are replaced very often	.12	.67	.00	.01	.11	.30
9	Product packaging of products are often replaced	.20	.77	.20	.19	.13	.19
10	Prices for products are subject of frequent changes	.10	.62	.17	.27	.05	.46
11	Services are often subject of chance	.20	.63	.07	.31	.13	.21
12	I have a hard time to understand product descriptions	.18	.15	.73	.19	.21	.03
13	I'm not sure, what the numerous Labels are standing for	.22	.18	.77	.13	.03	.19
14	Often I'm uneasy if a more expensive product is really better than a cheaper one	.05	.20	.62	.07	.07	.34
15	Some times I'm not sure, if the store wants me to manipulate with the loyalty card program	.13	.15	.20	.79	.23	.34
16	It's critical, that my personal data is available for the store by means of the loyalty card	.21	.15	.16	.75	.27	.18
17	I believe, that the store urges me sometimes to buy something	.25	.19	.08	.74	.19	.14
18	I'm already irritated, if I'm confronted with a long waiting line at the check out, entering the store	-.04	-.01	.02	.04	.70	.30
19	Customers shopping in this store, are sometimes annoying	.17	.18	.21	.28	.78	-.02
20	Crowding in this store often disables an agreeable shopping	.18	.18	.10	.37	.81	.18
21	Some times it's difficult to judge the quality of a product	.31	.31	.32	.14	.24	.64
22	I often get only vague information	.11	.26	.23	.26	.22	.68
23	Some times I'm not sure, if I can rely on the ads messages	.20	.35	.47	.35	.12	.54
24	The product's picture on the package some times doesn't correspond with the real product	.17	.30	.06	.40	.21	.64
25	Sales often are only slightly cheaper than the regular price	.18	.42	.33	.33	.15	.58
26	I believe, that the store frequently increases prices without informing consumers	.08	.48	.31	.25	.13	.61

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.

rotation using SPSS 12.01 software. Items exhibiting low factor loadings ($< .50$) and high cross-loadings ($> .50$) were candidates for elimination (cf., Hair et al. 1998). After inspection, one item was deleted. The remaining 25 items were subject to further exploratory factor analysis. A final six-factor model was estimated. Applying the same empirical considerations, no further items had to be eliminated. The deletion of any item would have weakened the scale's reliability. The key data of the item pool purification process is shown in table 1. Furthermore, the factor solution accounted for 55% of the total variance and exhibited a KMO measure of sampling adequacy of .853. All communalities ranged from .45 to .70.

Next step for scale purification is a *confirmatory factor analysis* (cf. Gerbing and Anderson 1988). A 25-item, six-dimension confirmatory factor model was estimated using LISREL 12.1 (Jöreskog and Sörbom 1996) and maximum likelihood method. Inspection of model fit revealed indices that were all above acceptable thresholds (Hair et al. 1998; Bentler and Bonett 1980): Chi-Square (260, $N=345$)=413.70, $p=.000$; Chi-Square/df=1.59; GFI=.92; AGFI=.90; CFI=.97; NNFI=.97; standardized RMR=.051; RMSEA=.039. We are aware, that using confirmatory factor analysis on an already purified item battery for the same sample will result in a certain tendency to obtain inflated fit indices. Nevertheless, these results show evidence of a six-factor scale (which has to be validated through replicating the confirmatory factor structure on an independent sample).

The results indicate that measures are unidimensional, with each item reflecting one and only one underlying construct (Gerbing and Anderson 1988). The proposed model fits the data adequately. Factor correlations for the confirmatory factor analysis are ranging from a low of .24 (stimuli complexity and comfort) to a high of .69 (stimuli novelty and reliability)-all on a significant level. Further-

more all constructs demonstrated discriminant validity using the Fornell and Larcker's (1981) procedure ($AVE > r^2$). For example, the shared variance between stimuli variety and novelty was .314, whereas the average variance extracted for the two constructs was .61 each. Convergent validity is obtained from the measurement model by determining whether each indicator's estimated maximum likelihood loading on the underlying construct is significant (Bagozzi and Phillips 1982). All confirmatory factor loadings exceed .50 (indicator reliability exceeding .40) and all are significant with t values ranging from a low of 7.32 to a high of 14.06. Therefore, we have evidence of convergent validity.

DISCUSSION

The main contribution of our study was the inquiry of confusion triggers and the following scale development for consumer confusion in shopping environments. We therefore pursued a "two-step approach" by forming four focus groups in order to identify potential confusion triggers. Applying content analysis, this qualitative analysis generated 26 items. For the proximate scale purification, we employed exploratory factor analysis, confirmatory factor analysis, and an initial assessment of scale reliability and unidimensionality. Our results indicate a 25-item and six-factor model exhibiting respectable fit.

Further research is needed for the final scale validation. This activity intends to demonstrate the replication and the stability of the model across independent samples. Having successfully done the scale validation, the next step is to implement the scale into retail management. We expect four steps to effectively use the measurement. First, stores need to analyse the current confusion potential. Having done this situation analysis, manager have to create orientation measures to challenge the confusion triggers. After implementation, there is another need for analysing the confusion poten-

TABLE 2
Confirmatory Factor Analysis

Factor	Items	Construct Reliability	t-value	AVE	Indicator Reliability
Stimuli variety		.82		.61	
	1		9.05		.69
	2		9.08		.69
	3		6.81		.44
Stimuli novelty	4	.92	10.90	.61	.59
	6		10.84		.59
	7		10.67		.62
	8		10.05		.55
	9		10.86		.59
	10		14.31		.73
	11		11.42		.62
Stimuli complexity	12	.80	8.87	.57	.56
	13		10.54		.69
	14		7.33		.47
Stimuli conflict	15	.86	13.68	.67	.75
	16		12.04		.67
	17		10.48		.59
Stimuli comfort	18	.84	7.32	.64	.43
	19		10.94		.65
	20		13.50		.83
Stimuli reliability	21	.90	10.52	.61	.57
	22		10.58		.57
	23		12.03		.63
	24		10.43		.56
	25		12.66		.66
	26		12.41		.65

tial of the store. Moreover, it might be aspiring to identify emotional reactions of consumers in situations of confusion and the subsequent behavior.

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