LIMITED EDITIONS –
EVALUATION AND RECIPROCAL EFFECTS ON FMCG BRANDS

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ABSTRACT

Limited Editions are a widely used type of line extensions to introduce new products in the Fast-Moving-Consumer-Goods business. In this process an exceptional, limited available variant is added to the permanent offers of a product line. Despite the meanwhile wide use of this strategy in marketing there is almost no scientific discussion about limited editions. This article focuses on how consumers react to limited editions. Based on exploration-, scarcity- and categorization-theory, effects of exploration seeking and processing depth are analysed. Additionally reciprocal effects of limited editions on the parent brand are examined.

Keywords: limited editions, exploration seeking, scarcity, categorisation.
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INTRODUCTION

Limited Editions characterise a special form of line extensions. On the one hand, they differ from typical extensions by their limited availability. This is indicated by labels like “limited edition” or “only for a short time”. On the other hand, limited editions are characterised by atypical variations of product attributes. An example is given by Magnum’s limited edition “5 Senses”. The restricted availability of this special variation is illustrated by “Limited Edition”. Extraordinary varieties and atypical design elements support a clear distinction from permanent offers (Fig. 1).

Whereas limited editions in high involvement categories, such as watches or art prints, look back on a long tradition (Amaldoss and Join, 2008; Franke and Schreier, 2008), in recent years this kind of strategy has been used increasingly in fast-moving-consumer-goods (FMCG)-categories as well. Companies use the limited-edition-strategy especially because of the additional growth potential and the possibility to distinguish one’s brand from the others (Kirsche, 2005). The number of limited edition launches in the U.S. food- and beverage-sector increased from 2001 to 2004 about 87% to 230 (Banasiak, 2005). For consumers, these products are very attractive because they offer something new and exciting (Banasiak, 2005; Oller, 2006; Theodore, 2004). In FMCG-categories, consumers show a distinct openness to innovations and related desires for variety and new sensory experiences. Limited editions succeed to meet these desires by their extraordinary product characteristics (Banasiak, 2005; Kirsche, 2005). The restricted availability indicates a “use-it-or-lose-it”-situation and is therefore an additional sales appeal (Oller, 2006; Theodore, 2004).

RESEARCH OBJECTIVE

In spite of its high practical relevance as a special form of product line extension, there is up to now a lack of scientific discussion about the effects of limited editions on the consumer. Some authors list possible effects, like addressing the need for stimulation or positive feedback effects to the parent brand image (e.g. Banasiak, 2005; Oller, 2006). A theoretical foundation respectively empirical discussion is missing. The following research issues are main subjects of this article: What are the fundamental parameters for the evaluation of limited editions in FMCG-categories? To what extent may the regular brand benefit from positive feedback effects of the limited edition?

THEORETICAL BACKGROUND

The theories used, derive from the characteristics of limited editions. Effects related to the limited availability of a product arise from theoretical approaches about scarcity. A scientific discussion concerning the impact of atypical products follows from categorisation theory. In addition, exploration theoretical approaches, which discuss the role of need for stimulation, are used.

Exploration tendency: The desire for stimulation by diversification and new sensory experiences is assumed to be a basic motivation for buying limited editions (Banasiak, 2005; Oller, 2006). In exploration research this issue is called exploration tendency and contains
behavioural tendencies which help to regulate arousal and result from the motivation for stimulation seeking (Raju, 1980). Exploration tendency is a temporary relatively stable **personality trait** with varying intensity between individuals (Baumgartner and Steenkamp, 1996; Grande, 2005; Joachimsthaler and Lastovicka, 1984; Van Trijp et al., 1996). It is supposed that there are different levels of optimal stimulation among individuals (Hebb, 1955; Leuba, 1955; Maier et al., 2007). Exploration seekers show a high optimum. They will search more likely for stimulation than exploration avoiders, who are characterised by a lower optimum respectively a preference for familiar stimuli and situations (Baumgartner and Steenkamp, 1996; Raju, 1980; Van Trijp et al., 1996). As a result of the exploration tendency, **explorative behaviours** aim at the variations of the consumers’ surrounding attractions and act as a stimulant to the organism (Baumgartner and Steenkamp, 1996; Berlyne, 1960; Raju, 1980). Van Trijp et al. (1996) show that explorative behaviour is expected particularly in those product categories with low product involvement (Hoyer and Ridgway, 1984). Because of their extraordinary characteristics limited editions in FMCG-categories are expected to show a particularly high potential for stimulation. Therefore, they may primarily meet the acceptance of exploration seekers.

**Scarcity heuristics:** Several authors discuss the question to what extent **scarcity as a heuristic cue** has a positive impact on product evaluation (“scarcity effect”) (Cialdini, 1993; Lynn, 1989, 1992; Stock and Balachander, 2005). Cialdini (1993; 2001) assumes a “**scarce = attractive**”-heuristic, with consumers drawing direct conclusions from scarcity to attractiveness (Cialdini, 1993; 2001). The information about limited product availability initiates a standardised, cognitively hardly controlled sequence of behaviour which causes a longing for the product (Cialdini, 1993). According to Lynn (1992), scarcity is not directly resulting in increased attractiveness. In fact, consumers use a “**scarce = expensive**”-heuristic and infer from limited availability to a higher price (Lynn, 1992). An increase in attractiveness due to scarcity may be expected only if consumers prefer costly products rather than cheap alternatives, e.g. to demonstrate higher status. Concerning **limited editions** in FMCG-categories, it can be assumed that consumers will take the indication of limited availability as a **heuristic stimulus** as well. However, it is unlikely that one of the above described heuristics will be activated. The arousal of a desire for the product “at the push of a button” is contradictory to other views about scarcity effects. According to several authors (e.g. Brannon and Brock, 2001; Brehm, 1966; Folger, 1992; McConnell et al., 2000; Zeelenberg and Pieters, 2007), **cognitive processes** are fundamental for increased attractiveness caused by scarcity. This is contrary to Cialdini’s (1993) assumption. However, effects shown by Lynn (1992) are primarily expected in high involvement product categories where products serve as status symbols (Lynn, 1989). Concerning FMCGs, a scarcity information may rather lead to a “**scarce = novel**”-heuristic. This heuristic assumes that consumers learn about the limited edition characteristics of novelty and speciality in FMCG categories. Therefore, consumers draw conclusions from limited availability to the offers’ distinctiveness. In turn, depending on individual tendencies to exploration, this leads to increased perceived product attractiveness.

**Categorisation:** Categorisation-theoretic considerations provide conclusions about reciprocal effects of limited editions towards the parent brand. The process of **categorisation** contains the identification of an object as a member of a class of objects on the basis of similarities (Ozanne et al., 1992; Pavelchak, 1989; Rosch and Mervis, 1975). A **brand category** can be understood as a group of several distinguishable products bearing the same brand name (Boush, 2001; Boush and Loken, 1991). Similar to categories in general, the members of a brand category show a **graded structure**. “Some products are more representative of a brand category than are others” (Boush and Loken, 1991). All of a brand’s existing products as well as new ones can be described in terms of how much they are (a)typical for the brand (Joiner...
Within the scope of product categorisation, both assimilation- or contrast-effects can be caused (Lee, 1995; Wänke et al., 2001). A contrast-effect usually occurs if a stimulus related to a context-stimulus is categorised further away than in absence of this context-stimulus. Assimilation describes the fact that a relation to a context stimulus increases perceived similarity (Frey and Greif, 1994). Assimilation effects occur if a product is successfully identified as a member of a certain brand (Fiske and Neuberg, 1990; Schwarz and Bless, 1992). On the one hand, this implies a transfer of characteristics from the brand to the product (Park et al., 1991; Reddy et al., 1994). On the other hand, characteristics of the product become a fundamental part of the brands’ mental representation and lead to a change of the brands’ image (Loken et al., 1993; Romeo, 1991; Thorbjörnsen, 2005). For limited editions it can be expected that they change the parent brands’ mental representation through their characteristics, like for example the novelty, or their overall attractiveness in product categories with a tendency to exploration.

**HYPOTHESES**

**Meaning of exploration tendency for the effect of a product limitation:** Concluding from the considerations about the impact of scarcity, consumers in the FMCG-sector use scarcity signals as a heuristic cue to infer novel characteristics of the product. The perceived novelty should have a positive effect on product evaluation, especially in case of high exploration tendency. The following hypotheses can be derived from these conclusions:

**Hypothesis 1:** Marking a product with an indication for limitation, increases perceived product novelty.

**Hypothesis 2:** Exploration seekers show a) a more positive attitude respectively b) a more distinctive behavioural intention towards a limited product than exploration avoiders.

**Hypothesis 3:** The scarcity effect appears only with exploration seekers. An indication for limitation causes a) an increased product evaluation respectively b) a more distinctive behavioural intention with exploration seekers. There is no positive impact on product evaluation and behavioural intention by limitation with exploration avoiders.

**Meaning of the depth of processing for the effect of a limited edition:** Cialdini’s (1993) point of view that scarcity creates desire “at the push of a button” is only hard to apply for the limited editions regarded in this article. It can be assumed that the effect of limited editions is mainly influenced by cognitive processes. The following hypotheses can be deduced:

**Hypothesis 4:** A deeper processing of the limited edition leads a) to a positive attitude towards the product, respectively b) to a stronger behavioural intention than a superficial processing.

**Hypothesis 5:** The positive scarcity effect occurs with an atypically designed product only by deeper processing. In this case, an indication of limitation leads to a) a more positive attitude towards the product, respectively b) a stronger behavioural intention. There occurs no scarcity effect with a low depth of processing.

**Reciprocal effects of the limited edition to the parent brand:** The inclusion of the limited edition leads to a change of the mental brand representation. It can be assumed that there is a positive evaluation for limited editions in those FMCG-categories which tend to exploration. However, positive feedback effects on the overall-attitude can be expected only for weak brands, because strong brands are assumed to already have a stable attitude (Keller and Aaker, 1992). Moreover, the quality of novelty, which is associated with limited editions, leads to a changing attitude towards the brand. As in this case evaluations of a specific level are touched, there is also a possibility of a change in judgement over a strong brand (Loken and Roedder John, 1993). The following hypotheses can be deduced:
Hypothesis 6: The launch of a limited edition under a weak brand has a positive effect on the brand’s attitude. In case of a strong brand, the attitude towards the brand remains the same.

Hypothesis 7: The introduction of a limited edition has a positive effect on the perceived creativity of the brand, regardless of the strength of the brand.

RESULTS

For the verification of the hypotheses, three experiments were carried out. An evaluation takes place through analyses of variance.

Experiment I: The aim of the first experiment was to examine in what way the effect of product limitation, which is characteristic for limited editions, is dependent on the exploration tendency of the consumers. The design of the study is a 2x2-factorial between-subject-design. On the one hand, the limitation has been varied as one factor (with vs. without indication of limitation). An illustration of the product line of the fictitious frozen pizza brand Osseo was presented to the test persons with the test product “Mozzarella-Rocket-Parma ham” as well as the two standard varieties (“Margherita” and “Salami”). In comparison with the experimental situation “no limitation”, in the situation “with limitation” additional information “Limited Edition – Only for a Short Time” were provided to the product “Mozzarella-Rocket-Parma ham“ (see appendix). On the other hand, a division of the examination participants according to their exploration tendency took ex post place (high vs. low exploration tendency). This tendency has been operationalised by using the “Exploratory Acquisition of Products” (EAP)-Index (Baumgartner and Steenkamp 1996). The differentiation between exploration seeker and exploration avoider is made on the basis of a median split (Menon and Kahn, 1995). In total, 120 students of a German university were interviewed. For the dependent variable, the perceived novelty of the product, the attitude towards the product as well as the trial interest were captured on the basis of nine-level bipolar items (see appendix). In addition, the product involvement for frozen pizza was included as a possible disturbance variable.

Results of experiment I: Through the signalling of the limited availability, the altogether perceived novelty of the test product increases to a significant extent ($F_{1.116}=5.694$, $p<.05$). Therefore, hypothesis 1 can be confirmed. Exploration seeker express a significantly more positive attitude judgement ($F_{1.58}=7.395; p<.01$) and trial interest ($F_{1.58}=13.155, p<.001$) towards the limited product than exploration avoider. This confirms the hypotheses 2a and 2b. A comparison of the situations with and without limitation shows that the attitude towards the product ($F_{1.59}=6.699, p<.05$) as well as the trial interest ($F_{1.59}=7.905, p<.01$) of exploration seekers will be significantly improved through a limitation, while there is no significant change in the attitude ($F_{1.57}=0.585, p=.448$) or rather in the trial interest ($F_{1.57}=0.078, p=.781$) of exploration avoiders (Fig. 2). Hypotheses 3a and 3b can be supported.

Experiment II: Experiment II should deal with the question in what way the depth of processing influences the effect of a limited edition. The study bases on a 2 (with vs. without limitation) x 2 (low vs. high depth of processing)-factorial between-subject-design. In total, 120 students were interviewed. An illustration of the product line of the German biscuits brand Prinzenrolle with an atypically designed test product “White and Brown Chocolate” as well as the standard products were presented to the test persons. Again, the manipulation of the product limitation happened through the presentation of the test product with or without indication of limitation. For the manipulation of the depth of processing, a cognitive-load-manipulation was carried out. In this case, the test persons received a distraction within the experimental situation “low depth of processing” (a parallel counting task) (Drolet and Luce,
The manipulation of the depth of processing was monitored through a task-involvement-index (Gürhan-Canli and Maheswaran, 1998; Maoz and Tybout, 2002). Again, the attitude towards the product and the trial interest were questioned as dependent variables. The product involvement as well as the tendency to exploration were defined as disturbance variables. **Results of experiment II:** With deeper processing of the limited edition there was a significantly more positive attitude judgement \( F_{1.57}=9.083, p<.01 \) and trial interest \( F_{1.57}=6.997, p<.05 \) indicated than with low depth of processing. This confirms the hypotheses 4a and 4b. A comparison of the situation with and without limitation shows the occurrence of a scarcity effect with higher depth of processing. There is a highly significant difference in the attitude \( F_{1.57}=11.090, p<.01 \) and in the trial interest \( F_{1.57}=4.126, p<.05 \) in favour of the limited product. In case of low depth of processing, there exists no significant difference for the product without vs. with limitation concerning attitude \( F_{1.57}=0.101, p<.752 \) and trial interest \( F_{1.57}=1.995, p=.163 \) (Fig. 3). The hypotheses 5a and 5b have to be confirmed.

**Experiment III:** The aim of the final experiment was the analysis of reciprocal effects of a limited edition launch to the parent brand depending on the brand strength. 61 students in total were interviewed. The study is based on a 2x2 factorial design, which contains both a within- and a between-factor. “Launch of a limited edition” (product line before vs. after the launch of the limited edition) represented the within-factor. Each test person was interviewed about the dependent variables at two points in time, before and after the extension of the product line with the limited edition. Brand strength (strong vs. weak brand) was the between-factor. Leibniz was chosen as the strong and Choc Me (a discounter-brand) as the weak brand out of the category of (chocolate) butter biscuits. The test variety was “Stracciatella”. First, the test person was asked to rate the brand out of the standard variants (butter biscuit, milk chocolate and dark chocolate). Afterwards, they were shown a board, where the product line was extended with the limited edition “Stracciatella”. Again, the test persons were asked to judge the brand. The attitude towards the brand as well as the brand creativity were questioned as the dependent variables. The control variables are the product involvement, the attitude towards the package design as well as the exploration tendency. **Results of experiment III:** Through the introduction of the limited edition, the result for the weak brand is a highly significant improvement of the brand attitude \( F_{1.28}=19.663, p<.001 \). The attitude towards the strong brand does not change significantly through the launch of the limited edition \( F_{1.58}=1.578, p=.219 \). Therefore, hypothesis 6 can be confirmed. By launching a limited edition, the perceived brand creativity of both the weak brand \( F_{1.28}=61.112, p<.001 \) and the strong brand \( F_{1.29}=45.291, p<.001 \) increase significantly high (Fig. 4). Therefore, hypothesis 7 can be confirmed as well.

- please place Fig. 4 about here -

**CONCLUSIONS**

The results show that consumers in the low involvement-area apply a “scarce = novel”-heuristic and that they conclude from the limitation to the exclusiveness of the product. However, an intensified effect of the limitation onto the attitude and the behavioural intention only occurs for **exploration seeker**. Therefore, before a company decides to use limited editions as a new-product-strategy, it should be examined if the target group has a corresponding exploration tendency. Furthermore, the studies were able to underline the
impact of a product limitation. To generate a positive scarcity effect at the PoS, it is necessary that customers also recognise the limitation. Therefore, it has to be ensured that according to the product design and also to the PoS-materials (e.g. trays and displays), the product limitation is communicated appropriately visibly to the consumer. The impact of a product limitation has also to be taken into account for product tests prior to a launch. To get valid test results, it is necessary to already inform the consumers in market research tests about the planned limitation of the product. Another interesting finding is that the evaluation of the limited edition is significantly influenced by processing depth. A positive scarcity effect only occurs if there is a more intensive cognitive examination. Therefore, Cialdini’s (1993) point of view that a desire, which results out of scarcity, can be aroused “at the push of a button” has to be rejected for the limited editions regarded in this article. The consequence is a particular relevance for those activities that are useful for a more intensive turn to the product at the PoS. On the other hand, especially limited editions could suffer if PoS activities prescind too much from the product. Finally, it has been found that the brand can profit from the reciprocal effects of a limited edition. Limited editions are an effective strategy for brands which aim to increase the perceived brand creativity. In addition, they provide an opportunity for weak brands to improve the overall-attitude towards the brand.

LIMITATIONS AND FUTURE RESEARCH

For the generalisation of the obtained findings it has to be restrictively considered that exclusively students were questioned. Studies about the exploration tendency have shown that particularly for younger consumers (Givon, 1984; Kumar and Trivedi, 2006; Raju, 1980), or rather for those with a higher level of education (Raju, 1980) an above-average tendency to explorative behaviour exists. Therefore, the above-average high tendency to exploration and therewith the acceptance of limited editions is expected for the group of students. In future studies, further sections of population can be examined concerning their acceptance of limited editions. In these studies, the range of product categories is restricted to frozen pizza and biscuits. The results should not be easily applied onto other product categories. With the consideration of other categories in the low involvement area, the external validity of the obtained findings could be increased. An important factor which leads to a different acceptance on limited editions in different product categories may be found in the category-related tendency to exploration.
REFERENCES


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Fig. 1. Magnum product line including Limited Edition
**Fig. 2.** Results of Experiment I

**Fig. 3.** Results of Experiment II
Fig. 4. Results of Experiment III

APPENDIX

Stimuli of Experiment 1
### Operationalisation of dependent variables

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Measurement</th>
<th>Cronbach's α</th>
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<tbody>
<tr>
<td>Perceived Novelty</td>
<td>Measured by the following sets of adjectives: dull/exciting, routine/fresh, conventional/unconventional, predictable/novel, usual/unusual, ordinary/unique, commonplace/original (9-point scale) (Andrews/Smith, 1996)</td>
<td>Experiment 1: a = 0.95</td>
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<tr>
<td>Attitude towards the Product</td>
<td>Measured by the following scale items:: good/bad, like/dislike, attractive/unattractive, likeable/dislikable, high quality/poor quality (9-point scale) (Hanson/Biehal, 1995)</td>
<td>Experiment 1: a = 0.89 Experiment 2: a = 0.88</td>
</tr>
<tr>
<td>Trial Interest</td>
<td>How great is your interest to try the Product X? (-4 = not interested, 4 = very interested) (Fennis/Bakker, 2001)</td>
<td>–</td>
</tr>
<tr>
<td>Brand Fit</td>
<td>To what extend do you think the product fits to the Brand X? (-4 = not at all, 4 = very well) (Chakravarti/MacInnis/Nakamoto, 1990)</td>
<td>–</td>
</tr>
<tr>
<td>Attitude towards the Brand</td>
<td>Measured by the following scale items:: good/bad, like/dislike, attractive/unattractive, likeable/dislikable, high quality/poor quality (9-point scale) (Hanson/Biehal, 1995)</td>
<td>Experiment 3: Before-Measurement: a = 0.90 After-Measurement: a = 0.91</td>
</tr>
<tr>
<td>Brand Creativity</td>
<td>What is your opinion regarding Brand X on each of the following attributes? 1. trendy, 2. modern, 3. cute, 4. creative, 5. fancy (-4 = not applicable, 4 = applicable) (Mäder, 2005)</td>
<td>Experiment 3: Before-Measurement : a = 0.93 After-Measurement : a = 0.96</td>
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