

Sensory Imagery Marketing: Appealing Consumers' Senses in Digital Marketplaces through Sensory Imagery

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Abstract

Marketers highly profit from sensory experiences their customers make in interaction with their products. However, online touchpoints face the drawback, that this is not possible directly for most of the human senses, leading to phenomena like showrooming and constantly increasing return rates. Sensory imagery as possibility to evoke senses indirectly within consumers can bridge this physical gap. Through systematically reviewing literature on imagery we depict the actual state of research. On this basis, the current research introduces a concept of sensory imagery marketing by providing systematic accounts and motivational underpinnings. Furthermore, we aim at pointing out, which topics seem to be required and fruitful subjects to research. Hence, the current research contributes to the field of digital marketing by providing approaches for enhancing the sensory-richness of the online customer experience.

Keywords: sensory imagery, imagery appeals, online shopping

Track: Digital Marketing & Social Media

1 Introduction

Sensory perceptions of products figure prominently in consumers' experience of those (Dagman et al., 2010, p. 15) impacting consumers' perception, judgement and behaviour (Krishna, 2012, p. 332). Thus, both researchers and marketers address the issue of strategically appealing to consumers' sensory perception. A plethora of studies display, that engaging human senses within marketing activities effectively influence consumers' behaviour as impacting consumers' product choice (Biswas and Szocs, 2019, Larson et al., 2014) and their switching-behaviour (Inman, 2001). However, consumers can not always directly receive sensory stimuli with the appropriate sensory organ due to a physical distance to the sensual product caused by its offering on the Internet. In 2018, up to one third of customers in European countries made their purchase on the Internet (Eurostat, 2018). Products are bought online weekly or more often by up to 30 percent of consumers (pwc, 2019). When emphasizing return rates, more than half of the ordered products are sent back (PostNord, 2019a). The product category thereof with the largest share is formed by clothing and shoes (PostNord, 2019b), which exhibit a highly sense-intensive character. When being asked for reasons for returning a product, consumers state the failure to perform their previously formed expectations (ibi research, 2017). Consumers' need for physically experiencing a product with their senses is also demonstrated by the phenomenon of showrooming as examining the product offline, but purchasing it online (Gensler et al., 2017). In conjunction with this, we assume, that a proportion of those customers formed their mismatching expectations due to a lack of sensory impressions, especially regarding sense-intensive products. In overcoming the discrepancy between offering sensory appeals and receiving them in online environments, Petit et al. (2019) propose, that sensory aspects can be invoked by using sensory-enabling technologies reaching from headphones and touch screens to virtual and augmented reality applications as well as interfaces transporting senses digitally. Although those auspicious technologies pledge an enriched sensory experience while shopping online, they are often complex and expensive, wherefore they are not applicable for all digital environments and every consumer. Thus, we propose the showcasing of non-technical pathways for arousing sensory perception via inducing mental imagination processes. Since "[...] imagery processes are evoked as sensory experiences in working memory" (MacInnis and Price, 1987, p. 474), cues and mechanisms are required to retrieve these stored sensory experiences from the working memory. The objective of the current paper is to identify imagery-based approaches for appealing sensory experiences in digital environments already existing in marketing literature by systematically reviewing them to point out where future research should focus on. In the course of this, the current paper contributes to research in the fields of sensory marketing as well as to research relating to online marketing. Additionally, results provide the examination of customer experiences with further insights.

2 Theoretical Background

"Mental imagery occurs when perceptual information is accessed from memory [...]" (Kosslyn et al., 2001, p. 635) and is conceived as multimodal mental representations about the extracorporeal environment. Mental images are often assembled by drawing on stored information from previous perception (Kosslyn et al., 2001, p. 635), which can be further triggered by external stimuli. An actual sensory sensation implies the direct impinging of the sensory stimulus "[...] upon the receptor cells of a sensory organ [...]" (Krishna, 2012, p. 334), whereby the perception of a sensory stimulus depicts the comprehension of sensory information pertaining to the stimulus (Krishna, 2012). In case of sensory imagery both perceptions and sensory experiences work in a similar way like the direct experience of a sensory stimulus (MacInnis and Price, 1987, o. 474). Results from previous research suggest that mental imagery appears in any sensory modality (Spence and Deroy, 2013, p. 157), namely in visual, auditory, olfactory, gustatory and haptic modality. Most importantly, there is also evidence in literature proposing cross-modal interactions between different sensory modalities (Sathian and Zangaladze, 2002, p. 127). This gives rise for approaching not directly reachable senses (olfactory, gustatory, haptic) via reachable senses (visual, auditory) in digital marketplaces as means to exploit the benefits of sensory marketing activities in physical marketplaces.

3 Literature Review and Conceptual Framework

3.1 Systematically Reviewing Sensory Imagery Literature

Therefore, we now focus in this systematic review on identifying ways to trigger sensory imagery processes in the realm of digital marketing. For this purpose, we merged the rankings of Scimago (citation-based) and the VHB-JOURQUAL (based on evaluations) in order to assess and extract relevant and influential marketing journals. We included only journals that were listed in the Q1-category in the Scimago ranking and at the same time ranked as A+, A or B in the VHB-JOURQUAL. The time range covered was set between 1999 and 2019 so as to sustain the state of research on "imagery"-research in marketing. Only peer-reviewed research articles (no reviews, editorials, dialogues, etc.) were scanned. Each journal was browsed on the database, where it is hosted. The accomplished literature search using the keyword "imagery" resulted in 92 articles before any selection. After screening the abstract of each generated hit, 18 articles were finally included in the reviewing process (see table 1). The selection was determined on the basis of meeting the criteria of dealing with sensory imagery and researching imagery-evoking stimuli. Interestingly, more than three quarters of the findings were published in the past ten years, with nine articles being published since 2016 in leading marketing journals. We take this as an indication for the growing interest in research within

this field. The majority of search hits was not surprisingly retrieved from JCR, JCP and P&M due to consumers' imagery being highly intertwined with consumer behaviours as an outcome.

Table 1: Results of the literature search for keyword "imagery"

Journal*	Hits	Sensory Focus (included)	Assignment**
JM	2	0	-
JMR	12	4	Visual (3); Multisensory (1)
MKSC	1	0	-
JCR	29	7	Visual (5); Olfactory (1); Multisensory (1)
JAMS	4	0	-
JR	2	0	-
IJRM	3	1	Visual (1)
QME	0	0	-
JCP	12	3	Visual (1); Gustatory (1); Haptic (1)
JIM	0	0	-
JIM	2	0	-
IMM	1	0	-
JA	11	2	Visual (1); Olfactory (1)
JPSM	0	0	-
IMR	0	0	-
P&M	13	1	Visual (1)
JPP&M	1	0	-
ML	3	0	-
Σ	96	18	-

* Journal of Marketing Research (JMR), 1964-2015 JSTOR, since 2016 SAGE Journals; Journal of Marketing (JM) 1936-2015, since 2016 SAGE Journals; Journal of Consumer Research (JCR), 1974-2015 JSTOR, since 2016 OXFORD Academic; Marketing Science (MKSC), 1982-2013 JSTOR, since 2014 Informs PubsOnline; International Journal of Research in Marketing (IJRM), ScienceDirect; Journal of the Academy of Marketing Science (JAMS), SpringerLink; Journal of Retailing (JR), ScienceDirect; Journal of Consumer Psychology (JCP), Wiley; Marketing Letters (ML), SpringerLink; Journal of International Marketing (JIM), SAGE Journals; Quantitative Marketing and Economics (QME), SpringerLink; Journal of Interactive Marketing (JIM), ScienceDirect; Psychology & Marketing (P&M), Wiley; Journal of Public Policy & Marketing (JPP&M), SAGE Journals; Journal of Advertising (JA); Routledge Taylor & Francis Journal of Personal Selling & Sales Management (JPSSM), Routledge Taylor & Francis; Journal of Purchasing & Supply Management (JPSM), ScienceDirect; Industrial Marketing Management (IMM), ScienceDirect; International Marketing Review (IMR), Emerald

** assignment depending on the sensory modality, which is researched within an article

3.2 Results

Table 2 contains the results of the systematic literature searching process divided according to the involved sensory modality. The main contributions of the findings are depicted regarding their belonging to the sensory modalities imagery is affected.

Table 2: Categorization of the findings by sensory imagery modality

Sensory Imagery Modality	Findings
Visual Imagery	Argyriou (2012); Chang (2013); Dahl et al. (1999); Herd and Mehta (2019) ; Jia et al. (2017); Jiang et al. (2016); Lowe and Haws (2017); Ostinelli and Böckenholt (2017); Petrova and Cialdini (2005); Rajagopal and Montgomery (2011); Schlosser (2003); Trendel et al. (2018) ; Zhao et al. (2014)
Auditory Imagery	-
Olfactory Imagery	Krishna et al. (2013); Lin et al. (2018);
Gustatory Imagery	Si and Jiang (2017);
Haptic Imagery	Peck et al. (2013)
Multisensory Imagery	Cornil and Chandon (2016); Elder et al. (2017)

Visual Imagery

Argyriou (2012) reports, that vision-stimulating elements as animation (static vs. animated) lead to an increased vividness of the mental imagery, which in turn positively influence consumer behaviour as revisiting a retailer's website while iconography (iconic vs. symbolic) does not exert this influence. Moreover, consumers' individual characteristics regarding the ability to vividly create a mental image using their experiential brain system are investigated. Results indicate, that the more consumers use their experiential system, the more vividly appears the mental images to be (Argyriou, 2012). Chang (2013) depicts imagery-evoking elements, i.e. the picture type and the narrative type influencing indirectly consumers' imagery fluency and following attitudes. Individual characteristics as processing mode exert direct influence on imagery fluency. Dahl et al. (1999) use an instruction-based imagery task to examine the role of imagination versus memory in affecting the usefulness of design in a development process of a new product. The utilized instructions contained either the request to adduce past memories in mind or to harness imagination to form visual mental images. Results show, that imagery based on imagination leads to a more favourable outcome than such based on memory. Jia et al. (2017) draw on verbal descriptions being affected by consumers' physical distance to them. Results exhibit, that being more close to the source of verbal input increases the tendency to which consumers assess the content of the verbal input as being true. This correlation is mediated by the vividness of the mental imagery. Jiang et al. (2014) exhibit the impact of perspective conditions (similarity vs. difference), imagery-instructions (self-imagery vs. general imagery) and processing goals (story goal vs. information goal) on evaluative judgements. Self-imagery produced superior evaluations, when similar pictures are presented with a story goal and vice versa. Lowe and Haws (2017) exhibit, that the pitch of an auditory stimulus affects the size perception of a product due to visual imagery processes. The acoustic element was designed as a voice describing product characteristics which should engage consumers in visual mental imagery. Results show, that a lower pitch of the auditory description leads to visualizing larger products. When a product picture is additionally used during evaluation, this effect vanishes. Ostinelli and Böckenholt (2017) reveal the influence of

imagery-priming elements on the ease of generating a visual mental imagery. Imagery-priming tasks to solve as well as imagery-centred games like picture puzzles are used to mentally prepare consumers. Single words differing in their ease of imagination and verbal instructions are applied as sensory stimuli. Results show, that imagery-priming tasks aid consumers with lower ability in imagination and therefore enhance persuasiveness of ads in those. Petrova and Cialdini (2005) similarly draw on consumers' imagery-ability as being an influencing factor for outcomes of consumers' imaginization. Phrases fostering imagination of the described product and product pictures were inserted as imagery appeals. During visualization, participants were forced to close their eyes to obtain better imagery-generation. Imagery appeals lead to higher consumer preferences depending on a vivid product description. Results also point out, that imagery-ability is a crucial factor in consumers' visual imagery producing negative outcomes for consumers with low ability to mentally visualize. Rajagopal and Montgomery (2011) investigate the false experience effect occurring when consumers erroneously state that they already experienced a product based on imagery-evoking appeals as vivid descriptions and pictures. These phenomenon is comparable in outcomes to genuine memory. Schlosser (2003) highlights object interactivity instead of using passive information as valuable tool in evoking vivid mental images which in turn positively influence consumers' purchase intentions. This effect occurs regardless of the delivering type of product information being in blocks of text including graphics, storyboard type or an interactive instruction. Trendel et al. (2018) contrast imagery-related cues as pictures or imagery-evoking text with purely descriptive texts showing that the first option is best for changing consumers' attitudes. Zhao et al. (2014) outline, that precise description being rich in detail is not always royal road to positive product evaluation. Instead, it depends on whether consumer need to look back in time for visualizing or to anticipate the future. The first scenario favours concrete imagery-evoking descriptions, whereas the second prefers abstract instructions.

Olfactory Imagery

Krishna et al. (2013) investigate the effect of imagining smelling a product, which is commonly perceived as odorous. They found evidence, that olfactory imagery exert influence on consumers' salivation as a physical response, as well as on intentional and behavioural measures. Indeed, this effect is bounded by the presentation of a visual representation of the odor-afflicted product. The ability to create a vivid visual imagery appears to moderate the moderation of visual imagery on imagined scent on consumer responses. Lin et al. (2018) highlight, that arousing olfactory imagery in consumers is not per se advantageous by generating a sensory-richer product experience. Inducing an olfactory imagery can lead to potential negative ad or product evaluations depending on the consumers' sensitivity to odours. Further, they introduce sniffing as a bodily motor action, which in combination with olfactory imagery affects emotional reactions.

Gustatory Imagery

Si and Jiang (2017) examine taste imagery in terms of evaluating food tastefulness. A previously perceived taste influences consumers' evaluation of a following taste in both conditions, actual and imagined-only previous taste. The authors induced the taste imagery within consumers by giving a verbal instruction as sensory-inducing stimuli.

Haptic Imagery

Haptic, respectively tactile imagery can be triggered to stimulate humans' need for touch (Peck and Childers, 2003). Thus, Peck et al. (2013) depict the effect of instructions to imagine touching a product on consumers' feeling of owning the product, i. e. perceived ownership. Their results prove this assumption with the effect being even more pronounced when consumers close their eyes while imagining.

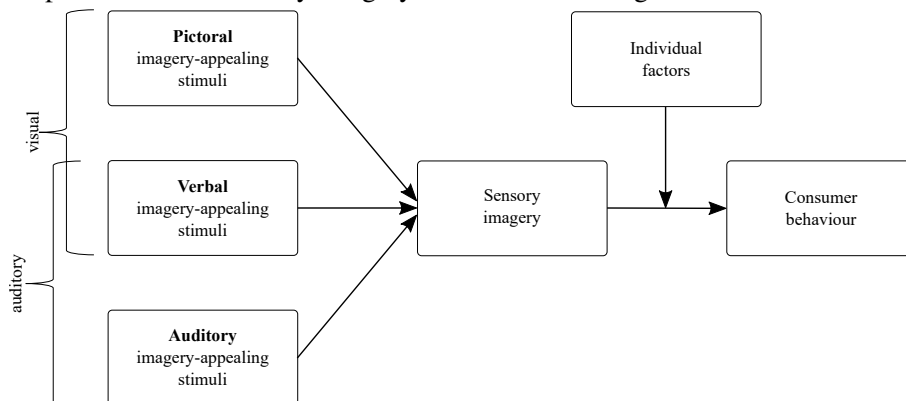
Multisensory Imagery

Cornil and Chandon (2016) suggest applying multisensory imagery to influence consumers' food portion choices. They used visual product images and verbal descriptions highlighting the multisensory characteristics of the product. Elder et al. (2017) examine the interaction between psychological distance and the type of sense appealed on evaluative judgements. They demonstrate more proximal senses (e.g. taste and touch) to produce higher evaluative judgements when being aligned with higher psychological distance of the object under evaluation and vice versa.

4 Towards a Conceptualization of Sensory Imagery in Online Marketing

The variety of influencing elements affecting consumers' imagery and in turn influence their behaviour is well illustrated by the findings depicted above. From a conceptual point of view, these contributions can be summarized within a resulting conceptual framework. Thus, figure 1 depicts the conceptualization of sensory imagery within a consumer context.

Figure 1: Conceptual model of sensory imagery in online marketing



Within the existing literature **pictorial** imagery-appealing stimuli as the appropriate *picture type* (e.g. Argyriou, 2012; Krishna et al., 2013); **verbal** imagery-appealing stimuli such as single words (e.g. Ostinelli and Böckenholt, 2017), text passages (e.g. Cornil and Chandon, 2016; Jia et al., 2017; Si and Jiang, 2017) or instructions (e.g. Dahl et al., 1999; Peck et al., 2013) and **auditory** imagery-appealing stimuli like the pitch (Lowe and Haws, 2017) can serve as imagery-appealing sensory stimuli.

5 Directions for Future Research

As the previously portrayed literature exhibit, there is already work done regarding the illumination of sensory imagery within the marketing context. Nevertheless, a large quantity of research topics related to consumers' sensory imagination is hitherto uncharted. Following, a brief account of each identified research gap is given, paving the way for future research.

Pictorial imagery-appealing stimuli should be further researched regarding *content* of the used pictorial stimuli varying in what is pictured (e. g. humans, animals or landscapes), what the underlying story is about (e. g. described scene or product image), their placing (e. g. within an ad). As digital environments make often use of icons, the impact of iconography and pictograms could be an interesting topic to research, too. **Verbal imagery-appealing stimuli** can vary e. g. in writing style, linguistic expression or grammatical arrangement. The use of semiotics, words or text passages can also be object of research. Rhetorical devices like alliterations or linguistic composition in the form of metaphors, narrations and storytelling should also be considered. **Auditory imagery-appealing stimuli** Referring to the use of auditory stimuli to evoke imagery, the use of either *music* or *voice* is conceivable. Voice can differ in who is speaking, what is said, dialect or accent influences, with background music or without. Music varies in mode, tone colour, pitch, the involved instruments, with singing or without. Both ways of auditorily evoking sensory imagery can vary according to their presentation length.

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