

**How to Create Successful Customer Experiences? An Empirical Investigation  
of Drivers and Outcomes and the Development of a Practical-Oriented  
Measurement Concept**

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## **Abstract**

Customer experience has been recognized as an important tool for the development of effective marketing strategies. The creation of successful customer experiences has therefore become one of the main challenges for companies. However, when implementing a successful experiential marketing strategy, managers need to know what actually constitutes an experience. Despite the growing interest in this topic, marketing research and practice still have limited knowledge on how to create such experiences for the consumer. To effectively manage customer experience, a suitable measurement concept is required to obtain a deeper understanding of the multidimensional construct. This enables the evaluation and improvement of experience efforts to ensure that the experience design is successful. Although some measurement approaches exist in the marketing literature, research lacks a formative measurement concept that identifies the cause indicators, that is, the dimensions that actually drive customer experience, and that can be applied to several industries. In addition, there is a need in the marketing literature for an extension of the fundamental customer experience research with regard to the drivers and outcomes of customer experience. To gain profound knowledge on the creation of successful experiences, a deeper understanding of the factors that influence the customer experience and the effects of customer experience on consumer perception and behavior is needed.

This doctoral thesis addresses the mentioned research gaps by (1) developing and validating a formative measurement concept for customer experience that is applicable across several industries and (2) examining the relevant drivers and outcomes of customer experience. In total, six research projects were conducted to examine research objective one and two. The developed measurement concept delivers a sought-after conceptualization of customer experience that further enhances the understanding of the construct. Due to the formative measurement, marketing managers are provided with useful insights into the development and evaluation of effective customer experience strategies. Further, the results of research objective two provide evidence for the importance of several relevant factors, such as multisensory marketing and product design that drive customer experience and the positive effects of customer experience on marketing-related outcomes, such as customer perceived value and customer satisfaction.

**Keywords:** Experiential Marketing, Customer Experience, Scale Development

## **Zusammenfassung**

Das Kundenerlebnis hat sich bereits als ein bedeutendes Instrument zur Entwicklung effektiver Marketingstrategien etabliert. Demzufolge ist die Generierung erfolgreicher Kundenerlebnisse zu einer wesentlichen Herausforderung für Unternehmen geworden. Für die Umsetzung einer erlebnisorientierten Marketingstrategie ist es für Manager jedoch unabdingbar zu wissen, was ein Erlebnis für den Konsumenten eigentlich ausmacht. Trotz des steigenden Interesses an dieser Thematik gibt es in der Marketingforschung und -praxis noch wenige Erkenntnisse darüber, wie solche Erlebnisse für den Konsumenten geschaffen werden können. Für ein erfolgreiches Management ist daher ein geeignetes Messkonzept erforderlich, welches ein tiefgreifendes Verständnis über das multidimensionale Konstrukt schafft und die Evaluierung und Optimierung der Erlebnisanstrengungen von Unternehmen ermöglicht. Obwohl bereits einige Messansätze in der Marketingliteratur existieren, fehlt es der Forschung an einem formativen Messkonzept, das die sogenannten verursachenden Indikatoren, das bedeutet, die Dimensionen, die ein Erlebnis bei den Konsumenten auslösen, identifiziert und welches branchenübergreifend anwendbar ist. Darüber hinaus besteht in der Marketingliteratur ein Bedarf bezüglich der Erweiterung der grundlegenden Forschung im Hinblick auf die Einflussfaktoren und Wirkungsgrößen eines Kundenerlebnisses, die weitere Erkenntnisse in Bezug auf die Gestaltung von erfolgreichen Erlebnissen liefern. Daher ist ein tiefgreifendes Verständnis der Einflussfaktoren in Bezug auf das Kundenerlebnis und dessen Auswirkungen auf die Wahrnehmung und das Verhalten der Konsumenten notwendig.

Die vorliegende Dissertation adressiert die oben aufgeführten Forschungslücken mit der Zielsetzung (1) ein formatives Messkonzept für Kundenerlebnisse zu entwickeln und zu validieren, welches branchenübergreifend anwendbar ist und (2) relevante Einflussfaktoren und Wirkungsgrößen eines Kundenerlebnisses zu untersuchen. Sechs Forschungsprojekte wurden zur Untersuchung der Forschungsziele eins und zwei durchgeführt. Durch die Entwicklung des Messkonzepts wird insbesondere eine neue Konzeptualisierung des Konstrukts erarbeitet, welche das Verständnis von Kundenerlebnissen grundlegend erweitert. Durch die formative Messung erhalten Marketingmanager somit wertvolle Erkenntnisse hinsichtlich der Entwicklung und Evaluation effektiver Kundenerlebnisstrategien. Die Ergebnisse der Untersuchung von Forschungsziel zwei bestätigen die Bedeutung mehrerer relevanter Einflussfaktoren (z.B. multisensorisches Marketing, Produktdesign) und marketingbezogener Wirkungsgrößen von Kundenerlebnissen (z.B. wahrgenommener Kundennutzen, Konsumentenzufriedenheit), die als Grundlage für die erfolgreiche Entwicklung erlebnisorientierter Marketingstrategien herangezogen werden können.

**Stichworte:** Erlebnismarketing, Kundenerlebnis, Skalenentwicklung

## **Preface**

*“The customer experience is the next competitive battleground”*

Jerry Gregoire (former CIO of Dell)

### **1. Motivation and Research Objectives**

In recent years, the concept of customer experience has received increasing attention in marketing research and practice. In particular the rising homogenization of products and services and the growing importance of emotions in consumer behavior have led to a shift in traditional marketing strategies. While consumers have long been considered to be rational decision makers, the new experiential marketing approach places an emphasis on irrational buying needs such as hedonism, aesthetics, or emotional responses that are directly linked to customers' value perception (Addis and Holbrook, 2001; Gentile, Spiller, and Noci, 2007; Holbrook and Hirschman, 1982). Hence, conventional marketing techniques that have mainly focused on the physical and functional aspects of products and services have reached their limits in addressing consumers. Research has shown that consumers now look for companies that provide them with unique and memorable customer experiences. Marketing management has, therefore, moved its focus from just selling products and services to relationship-oriented marketing, which creates added value for the customer. The creation of customer experiences has thus been recognized as an important tool for the development of effective marketing strategies and as a substantial means for companies to differentiate themselves from competitors (Gentile, Spiller, and Noci, 2007; Homburg, Jozić, and Kuehn, 2017; Klaus and Maklan, 2012; Prahalad and Ramaswamy, 2004).

Despite the growing interest in creating and managing customer experiences, there is still no common understanding in the marketing literature of what actually constitutes an experience because customer experiences are highly subjective, holistic in nature, vary in intensity and valence, and encompass customers at different levels. Research particularly stresses sensory, affective, cognitive, and physical dimensions (Brakus, Schmitt, and Zarantonello, 2009; Pine and Gilmore, 1999, Schmitt, 1999). The literature in this area widely agrees that experiences emerge from a set of interactions between a customer and company along several direct and indirect touch points and that experiences play a fundamental role in affecting customer preferences and purchase decisions (Anderson, Fornell, and Lehmann, 1994; Gentile, Spiller, and Noci, 2007).

Even though a considerable number of studies in the domain of experiential marketing exists, practitioners and academics still have limited knowledge on how to create such extraordinary experiences to better meet consumers' needs (Lemke, Clark, and Wilson, 2011; Lemon and Verhoef, 2016; Verhoef et al., 2009, Verleye, 2015). For a successful management, however, a suitable measurement concept is needed to obtain a deeper understanding of the multidimensional construct of customer experience. Following the well-established management adage of *"You can't manage what you can't measure"*, marketing managers will thus be enabled to evaluate and improve their experience efforts and to ensure that their experience design is successful. The only empirical and validated measurement concept that holistically captures customer experiences is the brand experience scale developed by Brakus, Schmitt, and Zarantonello (2009). The scale is applicable across several product and service industries and measures consumer responses that are evoked by brand-related stimuli. The authors conceptualize brand experience along sensory, affective, behavioral, and intellectual dimensions. The scale is designed in a reflective manner, meaning that the latent variable brand experience causes the identified indicators. Thus, the scale measures whether the consumer is affected by an experience in a sensory, affective, behavioral, or intellectual way. For the successful management of customer experiences though, managers need specific information about "how" to design such experiences to ensure marketing practicability. Therefore, it is necessary to understand the dimensions that actively drive an experience. A formative measurement concept that identifies the cause indicators, that is, the relevant dimensions that actually drive the customer experience, is therefore required. Such a formative and practical-oriented measurement concept will lead to new valuable insights for managers when planning and evaluating marketing strategies (Klaus and Maklan, 2012; Parasuraman, Zeithaml, and Malhotra, 2005). Moreover, specific and directed experiential marketing strategies can be developed to effectively appeal to the consumer (Diamantopoulos, 1999). Furthermore, to obtain a holistic view of the construct, the dimensions should not be limited to specific industries. Hence, the measurement concept needs to be developed in a way that it is applicable across different industries.

The main contribution of this doctoral thesis is to close the aforementioned research gap. Thus, the first part concentrates on the development and validation of a practical-oriented measurement concept that captures the customer experience in a formative and holistic manner. Therefore, the subsequent research objective can be formulated:

- **Research Objective 1:** The development and validation of a formative and practical-oriented measurement concept of customer experience that is applicable across several industries.

Despite the lack of a formative and practical-oriented measurement concept for customer experience, there is also a need in the marketing literature for an extension of the fundamental customer experience research. In particular, a deeper investigation of the relevant drivers and marketing-related outcomes of customer experience is required, which in turn provides marketing practitioners with important insights for the implementation of successful customer experience strategies (Brakus, Schmitt, and Zarantonello, 2009; Grewal, Levy, and Kumar, 2009; Kim et al., 2011; McColl-Kennedy et al., 2015; Verhoef et al., 2009). Although marketing research has already provided evidence for a number of factors that influence the customer experience on the one hand and the impact of customer experience on consumer perception and behavior on the other hand, there is still a lack of a comprehensive understanding of other important variables that might be related to the construct. Against this background, the conceptual derivation and empirical examination of relevant drivers and marketing-related outcomes of customer experience gain in importance (Grewal, Levy, and Kumar, 2009; Hultén, 2011; Iglesias, Singh, and Batista-Foguet, 2011).

The second part of this doctoral thesis focusses on this research gap and extends existing marketing literature with regard to relevant key variables in the context of customer experience. For this purpose, the well-established and validated brand experience scale of Brakus et al. (2009) serves as the basis for the empirical investigation of relevant drivers of customer experience and the effects of customer experience on consumer perception and behavior. Therefore, the following research objective can be stated:

- **Research Objective 2:** The investigation of relevant drivers and outcomes of customer experience.

With reference to the research objectives, this doctoral thesis is structured in two modules. The first module presents a new research approach and focuses on the development and validation of a formative and practical-oriented measurement concept of customer experience that is applicable across several industries. Module two extends the fundamental experience research and concentrates on the investigation of several drivers and outcomes of customer experience in various contexts. Overall, module one contains one research paper based on five studies, and module two contains five research paper (one conceptual and four empirical). In the following section, the individual research papers are described in detail.



## **2. Description of the Research Projects**

Six research projects were conducted to examine the research objectives described in the previous chapter. The first module addresses research objective one and concentrates on the development and validation of a formative and practical-oriented measurement concept of customer experience that is applicable across several industries. One research paper including five comprehensive studies describes the scale development and validation process. Module two addresses research objective two and focuses on conceptual and empirical investigations of relevant drivers and outcomes of customer experience in different contexts. Five corresponding research papers are largely built on each other to achieve profound scientific and practice-oriented insights. Below, the individual research papers and their main results are presented.

### **2.1. Module 1: Development and Validation of a Practical-Oriented Measurement Concept of Customer Experience**

Although customer experience has been recognized to be an important driver for marketing success, current measures do not adequately capture the facets that constitute and drive customer experience. However, to ensure successful implementation, marketing managers need to know how the creation of such experiences will succeed. Thus, a formative measurement approach that identifies the causal indicators, that is, the dimensions that drive the customer experience, is needed. Following the exposed research gap, the first paper "*The customer service experience scale (CSES): A first attempt towards a formative and practical-oriented measurement concept of customer service experience*" introduces a new practical-oriented customer experience scale that is formatively derived and thus identifies the relevant dimensions that cause the customer experience. The scale is developed in a holistic way, meaning that it is applicable across several industries. In a first attempt, special focus is given to the service industry. The development of this scale is based on a profound qualitative and four quantitative studies. The findings reveal a five-dimensional conceptualization of customer experience: atmosphere, escapism, learning, social environment, and enjoyment. Structural equation modeling supports the formative structure of the second-order construct and indicates the relevance of all five dimensions. In particular, the atmosphere and enjoyment dimensions are found to be highly important when creating customer experiences in the service industry. Moreover, the effects on marketing-related outcome variables are investigated. The results reveal that the customer experience scale is a strong predictor of customer value perception, loyalty, and the willingness to pay a price premium. Altogether, the measurement concept with

its formative perspective provides researchers with a holistic and sought-after conceptualization of the construct and give practitioners useful insights into the development of effective experiential marketing strategies.

## **2.2. Module 2: Investigation of Drivers and Outcomes of Customer Experience**

The objective of the paper *“Soothe your senses: A multisensory approach to customer experience management and value creation in luxury tourism”* is to provide a conceptual framework for multisensory marketing as a driver of customer experience that serve as a basis for customer value generation in the luxury tourism industry. Assuming that multisensory marketing and customer experience are closely related constructs, this paper focuses on how a holistic multisensory marketing concept that involves all five human senses – sight, hearing, touch, smell, and taste – can lead to a superior customer experience that encompasses sensory, affective, intellectual, and behavioral components. Furthermore, this paper demonstrates how the stimulation of the five senses and the delivering of a holistic customer experience generate a positive outcome to the customer in terms of financial, functional, individual, and social value. Consequently, the theoretical considerations regarding multisensory marketing as a driver and customer perceived value as an outcome of customer experience serve as bases for further research and provide companies in the luxury tourism industry with targeted design approaches for the implementation of value-based multisensory customer experiences.

Building on the aforementioned conceptual framework and to gain deeper insights into the relationships, the paper *“The power of experiential marketing: Exploring the causal relationships among multisensory marketing, brand experience, customer perceived value and brand strength”* empirically tests the causal relationships between multisensory marketing, customer experience, and customer perceived value. Furthermore, the effect on brand strength as an important brand-related outcome variable is assessed. To measure customer experience, the already tested and validated brand experience scale developed by Brakus, Schmitt, and Zarantonello (2009) is applied. The luxury tourism industry, specifically luxury hotels, served as the specific use case for the current study. Based on a quantitative dataset, partial least squares structural equation modeling (PLS-SEM) was applied to empirically test the hypothesized relationships. The results support the assumption that multisensory marketing is an important driver of brand experience and that both constructs positively influence the customer perceived value as well as brand strength in a significant manner. Moreover, the causal relationships provide important insights which components of customer perceived value (i.e., financial, functional, individual, and social) can be affected by

multisensory marketing and brand experience. Beyond that, a two-way analysis of variance (ANOVA) confirms significant differences with regard to the perception of the mentioned constructs for various customer groups (younger and older; poorer and wealthier). The findings give additional information on how marketing managers can better appeal to specific customer groups. Consequently, meaningful hints for the design of a successful experiential marketing approach are provided.

To further enhance the understanding of multisensory marketing as an important driver of customer experience, it is essential to consider not only the conscious (explicit) but also the subconscious (implicit) level of sensory perception. Therefore, the purpose of the paper *“Effects of consumer sensory perception on brand performance”* is to investigate the effects of explicit and implicit sensory perception on brand experience. In addition, the relationships with brand-related performance indicators in terms of brand image, brand satisfaction, brand loyalty, price premium, and buying intention as outcome variables are assessed. Gastronomy, in particular a German coffee house, served as the specific application case. A field experiment was undertaken using a questionnaire for explicit measures and a response latency measurement for implicit measures. By making use of PLS-SEM, the data analysis results show that sensory marketing is again a strong predictor for brand experience. Explicit sensory perception has a positive direct impact on brand experience, and implicit sensory perception has a positive indirect impact on brand experience, indicating the importance of both constructs in establishing experiences for the consumer. The results also highlight the effectiveness of sensory perception and brand experience in generating a positive overall assessment in consumers’ minds and in positively influencing consumer behavior. In addition, a correlation analysis yields new knowledge on which type of experiences (sensory, affective, intellectual, behavioral) are most strongly related to which of the five senses (explicit and implicit) to ensure a targeted design of experiences.

The broad area of advertising increasingly faces the challenge of effectively appealing to the consumer. As a holistic multisensory marketing approach has a high potential to create superior customer experiences, the implementation of multisensory stimuli in advertisement activities might be a promising approach. Therefore, the aim of the paper *“Sensory stimuli in print advertisement – Analyzing the effects on selected performance indicators”* is to investigate the effects of sensory cues on brand experience in the special context of print advertisement. In addition, the relationship with the perceived product design and consumer perception and behavior is assessed. In detail, the marketing literature has detected that sensory marketing is closely related to the perceived product design in terms of aesthetics, symbolism and functionality, and that an appropriate design can foster consumers’ entire brand

experience. Thus, the present study examines the relationships between implicit and explicit sensory perception and perceived product design as drivers of brand experience and consumer perception and behavior as marketing-related outcomes. A laboratory experiment was conducted with a specially prepared print ad serving as the stimulus material to test for the intended effects. For data analysis, PLS-SEM was used. The empirical results reveal that, in the given context of print advertisement, the incorporation of sensory stimuli is an important success factor in affecting the perceived product design and creating experiences for the customer. In detail, both implicit and explicit sensory perception and the perceived product design positively influence brand experience, which in turn leads to favorable consumer perception and behavior. There is a great potential in the haptic and olfactory senses in particular. However, when implementing sensory stimuli, marketing managers must be aware of both implicit and explicit effects and ensure that there is no conflict between the two perception levels.

In food marketing, in particular, there is often uncertainty about how advertising can be used most effectively to convince a consumer to buy a product. The paper *“How to best promote my product? Comparing the effectiveness of sensory, functional and symbolic advertising content in food marketing”* explores the effectiveness of different advertising contents (i.e., sensory, functional, and symbolic advertising design) on relevant key factors in the context of food product evaluation. In detail, the effects on product experience, gustatory perception, product quality, attitude towards the product and purchase intention are investigated. Two online experiments were performed to analyze the differences between the three advertising contents. Study 1 considers only advertising text, whereas study 2 considers the combination of text and a picture of the product, which is for the present study strawberries. For the determination of significant differences, several ANOVAs were conducted. All three product benefits (i.e., sensory, functional, and symbolic) were found to be important when only text was considered as the advertising element in the context of food products. However, significant differences were identified when a picture of the product was added. The results reveal that the advertising effectiveness increases with the complementarity of text and a picture. The symbolic text in combination with a picture of the product led to the best evaluation of the food product in terms of product experience, gustatory perception, product quality, attitude towards the product and purchase intention. Overall, by highlighting the relevance of a sensory, functional, and symbolic advertising design, food firms gain new insights into how advertising design can be effectively used to improve consumer’s perceived product experience, perception and behavior.

### **3. Conclusion and Implications**

#### **3.1. Main Contribution**

Although Abbott (1955) already stated approximately 60 years ago that *“What people really desire are not products but satisfying experiences (...)”* (p. 40), practitioners and researchers still have limited knowledge about how to create successful customer experiences. This limitation might be due to the highly subjective and multidimensional construct of customer experience. Although a suitable measurement approach is essential for the successful management, a formative and practical-oriented measurement concept of customer experience that allows targeted development and evaluation of experiential marketing strategies is missing. In addition, customer experience research still lacks a deeper understanding regarding the drivers of customer experience and the positive outcomes in terms of consumer perception and behavior. Against this background, this doctoral thesis aimed to fill the chosen research gaps: (1) the development and validation of a formative and practical-oriented measurement concept for customer experience that is applicable across several industries and (2) the investigation of relevant drivers and outcomes of customer experience.

With reference to research gap one, a practical-oriented measurement concept of customer experience is developed that contains formatively derived dimensions and thus provides important information regarding the dimensions that actually cause an experience. The measurement concept delivers a sought-after conceptualization of customer experience that further enhances the understanding of the construct. Applicable across several industries, the holistic scale provides the experiential marketing field with an important measurement instrument that allows the examination and evaluation of experiences as a basis for a successful customer experience management. With reference to research gap two, the results of conceptual and empirical studies indicate the importance of several drivers and outcomes of customer experience in different contexts that provide important insights into how customer experiences can successfully be created. In detail, multisensory marketing, implicit and explicit sensory perception, product design, as well as sensory, functional, and symbolic advertising contents are shown to be important factors in creating customer experiences. Furthermore, customer experience is determined to be a strong predictor for marketing-related outcomes, such as customer perceived value, brand strength, brand image, brand satisfaction, loyalty, price premium, buying intention, and overall consumer perception and behavior.

In addition to the main contributions, the specific research results of the different studies also provide several implications for management practice and future research.

### **3.2. Implications for Management Practice**

Both modules emphasize the relevance of customer experiences in creating effective marketing strategies. Focusing on module one, the development of a formative measurement concept of customer experience yields useful insights for the implementation of successful experiential marketing strategies. The identification of five formative indicators provide evidence as to which dimensions actually cause an experience for the customer. Building on this, when evaluating and planning customer experience projects, the scale will be a useful tool for marketing managers to measure the effectiveness of their experience efforts and the importance of each experience dimension. Specific areas that are, for example, weakly evaluated and therefore require a particular focus can be identified. Beyond that, marketing managers are able to better decide on which dimensions to focus on. The measurement scale can also be used for market segmentation. For example, customers can be segmented into groups based on their experience preferences regarding the identified dimensions.

Focusing on the investigation of drivers and outcomes in module two, the results indicate that a coherent multisensory marketing strategy that addresses all five senses has enormous potential to induce a customer experience that creates customer perceived value and brand strength. Thus, when successfully implementing an experiential marketing approach that encompasses a holistic sensory stimulation, marketing managers can create a closer bond between a consumer and company. In addition, evidence is provided for the consideration of both the implicit and explicit sensory perception when creating customer experiences. Marketing managers need to ensure that they perform well on both perception levels (implicit and explicit), otherwise it will negatively affect the perceived experience and marketing-related outcomes. Thus, to constitute a positive sensory perception, sensory cues that are consistent across the five senses and across both perception levels have to be set. This way, marketing managers can ensure that the planned multisensory marketing concept performs well in creating experiences that further lead to more satisfied and loyal customers. Moreover, for the creation of specific types of experiences (i.e., sensory, affective, behavioral, and intellectual), different foci can be set regarding sensory stimulations. For example, there is potential in visual and haptic stimuli of both implicit and explicit forms to evoke positive consumer reactions. In addition, besides the composition of different sensory stimuli, the promotion of a product itself, for example in print ads, can be used to implement an experiential marketing concept. An appealing product design and an integrated multisensory experience approach seem to be a promising tool to gain a positive overall assessment in terms of image, trust, and buying intention. Finally, it has been shown that highlighting different product benefits (i.e., sensory, functional, and symbolic) in an advertisement can also improve customers product evaluation in terms of the perceived experience.

### **3.3. Implications for Future Research**

Overall, the different studies provide relevant insights into the field of experiential marketing for marketing research and practice. However, the studies include some limitations that offer potential starting points for future research. First, there is a need to generalize the existing results. For both modules, the models and relationships were tested in a first step on a limited and relatively homogeneous sample. Further studies should, therefore, validate the results for larger and more heterogeneous samples. In addition, the data are related to specific contexts or industries. Future research should verify the findings in other application areas to compare consumer perceptions and responses to other product and service categories and specific experiences. Further, the moderating effects of cultural, situational, and sociodemographic aspects (such as gender or age) should be investigated. For example, identifying cultural differences in consumer responses may provide deeper insights and important implications for a beneficial experiential marketing strategy. Future research should also aim to further validate the developed measurement concept for customer experience and examine the importance of the individual customer experience dimensions for a successful experiential marketing strategy. As the identified dimensions partly overlap with some drivers/dimensions that have been identified in the context of online customer experiences, it is also of great interest to investigate whether the measurement concept can even be transferred to the context of online customer experiences. Finally, to deepen knowledge on the application of sensory stimuli to create customer experiences, other statistical techniques such as experiments or observations are needed. In this context, combinations of different sensory stimuli and their impact on customer experience and the individual dimensions has to be investigated.

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## List of Research Papers included in the Dissertation

### Module 1: Development and Validation of a Practical-Oriented Measurement Concept of Customer Experience

#### Paper 1

**Labenz, F.**, & Wiedmann, K.-P. (2018). The customer service experience scale (CSES): A first attempt towards a formative and practical-oriented measurement concept of customer service experience. Paper submitted and under review at the *Journal of Retailing and Consumer Services*.

### Module 2: Investigation of Drivers and Outcomes of Customer Experience

#### Paper 2

Wiedmann, K.-P., **Labenz, F.**, Haase, J., & Hennigs, N. (2016). Soothe your senses: A multisensory approach to customer experience management and value creation in luxury tourism. *The European Business Review*, January – February, 2016, 50-55.

#### Paper 3

Wiedmann, K.-P., **Labenz, F.**, Haase, J., & Hennigs, N. (2018). The power of experiential marketing: Exploring the causal relationships among multisensory marketing, brand experience, customer perceived value and brand strength. *Journal of Brand Management*, 25 (2), 101-118.

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Wiedmann, K.-P., **Labenz, F.**, Haase, J., & Bettels, J. (2017). The role of multisensory marketing and customer experience in the luxury hotel industry. Paper presented at the *Summer AMA Conference, San Francisco, USA*, August 4-6, 2017.

#### Paper 4

Haase, J., Wiedmann, K.-P., & **Labenz, F.** (2018). Effects of consumer sensory perception on brand performance. *Journal of Consumer Marketing*, forthcoming.

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### **Paper 5**

**Labenz, F.**, Wiedmann, K.-P., Bettels, J., & Haase, J. (2018). Sensory stimuli in print advertisement – Analyzing the effects on selected performance indicators. *Journal of International Business Research and Marketing*, 3 (2), 7-15.

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### **Paper 6**

Haase, J., Wiedmann, K.-P., Bettels, J., & **Labenz, F.** (2018). How to best promote my product? Comparing the effectiveness of sensory, functional and symbolic advertising content in food marketing. *British Food Journal*, 120 (8), 1792-1806.

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Haase, J., Wiedmann, K.-P., Bettels, J., & **Labenz, F.** (2018). Advertising design in food marketing: Comparing the effectiveness of sensory, functional and symbolic ad content for product evaluation. Paper presented at the *Academy of Marketing Science Annual Conference, New Orleans, USA*, May 23-25, 2018.

**P1:**

**The customer service experience scale (CSES): A first attempt towards a formative and practical-oriented measurement concept of customer service experience**

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## **The Customer Service Experience Scale (CSES):**

### **A First Attempt towards a Formative and Practical-Oriented Measurement Concept of Customer Service Experience**

#### **ABSTRACT**

Customer experience has been recognized as a source of competitive advantage and as an important driver of marketing success, especially for service companies. When implementing a successful experiential marketing strategy, managers need to know what actually constitutes a service experience. Thus, it is necessary to understand the dimensions that actively drive an experience to ensure management practicability. To manage successfully though, a suitable measurement tool is required. For this purpose, a formative measurement approach that identifies the causal indicators, that is, the dimensions that actually drive customer service experience, is particularly important. This will lead to valuable insights when planning and evaluating experiential marketing strategies. However, research lacks a formative and holistic measurement concept for customer service experience in the marketing literature. This article deals with the research gap and introduces a new practical-oriented customer service experience scale that follows a formative perspective and is applicable across several industries. Based on one qualitative and four quantitative studies, five dimensions are identified: *atmosphere*, *escapism*, *learning*, *social environment*, and *enjoyment*. Structural equation modeling confirms the formative structure of the model and the relevance of all dimensions. The formative measure provides managers with useful insights into developing effective marketing strategies for creating superior experiences. Researchers are provided with a holistic, sought-after conceptualization of customer service experience.

*Keywords:* experiential marketing, customer experience, service, scale development, formative measure

## INTRODUCTION

Customer experience management has become a key focus of management practice and an important strategic ingredient for companies in today's business environment, in particular for the service industry (Homburg et al. 2017; Klaus and Maklan 2011; Srivastava and Kaul, 2014; Terblanche 2018). The creation of meaningful customer experiences is therefore considered crucial for achieving satisfied and loyal customers and competitive advantages (Anderson et al. 1994; Dagger et al. 2007; Klaus and Maklan 2012). However, to ensure the successful implementation of customer experience, it is essential for marketing managers to know "how" the design of such an experience will succeed. Thus, a fundamental understanding of what actually constitutes an experience is needed. Although several managerial and empirical concepts have emerged from the marketing and management literature, a broader perspective with regard to the nature and dimensions of the construct in the academic literature is needed. Thus, in accordance with the well-established management adage of "You can't manage what you can't measure", a suitable measurement concept is needed to obtain a deeper understanding of the multidimensional construct and to manage experiences effectively.

As one of the first, Brakus et al. (2009) recognized the need for an in-depth conceptualization and developed the brand experience scale that is applicable across several product and service industries. These researchers conceptualize brand experience along the four dimensions: sensory, affective, intellectual, and behavioral. The scale is designed in a reflective manner, meaning that the latent variable brand experience causes the indicators. The four dimensions are so-called effect indicators and result from the experience that the consumer has with the brand, that is, if the consumer is affected through the experience in a sensory, affective, intellectual, or behavioral manner. The use of reflective multi-item measures is the most common method in marketing and management practice. This is because researchers in various disciplines often assume that

indicators are effect indicators (Bollen 1989; Churchill 1979). However, the application of reflective measurements is not the only defensible option. An alternative is the use of formative (cause) indicators, which has been a long-ignored measurement perspective (Diamantopoulos and Winklhofer 2001). A formative approach can also be attractive for the modeling of constructs, as it opens many other worthwhile opportunities and provides valuable insights, particularly for marketers when planning marketing strategies (Diamantopoulos 1999). In addition, research has shown that for many constructs which had previously been operationalized in a reflective manner, a formative perspective would have been theoretically more appropriate (Diamantopoulos and Winklhofer, 2001; Jarvis et al. 2003). Recently, the literature in marketing and management has increasingly focused on formative specifications and has previously demonstrated the adequacy of formative measurements for latent constructs (e.g., Diamantopoulos et al. 2008; Jarvis et al. 2003; Klaus and Maklan 2012; Venaik et al. 2004). In particular, customer experience management is a very practice-oriented topic (McColl-Kennedy et al. 2015). To manage successfully, a formative measurement approach that identifies the causal indicators, that is, the dimensions that actually cause and drive the customer experience would lead to new valuable insights. This would allow marketing managers to develop specific and directed experiential marketing strategies to effectively appeal to the consumer.

To our knowledge, there is no generally valid measurement concept that captures the customer experience in a formative manner and analyzes the so-called cause indicators, that is, the relevant dimensions that actually drive the customer experience. This paper adds to this substantive domain by developing a practical-oriented measurement concept that captures the customer experience in a formative manner. The scale is holistically designed, meaning that it is applicable across several industries. Special focus is on service industries “in which the customer experience is at the core of its being” (Kim et al. 2011, p. 112). Experiences play a critical role for the service sector because

products have increasingly become commoditized, and differentiation occurs largely through the provision of services (Hui and Bateson 1991; Kim et al. 2011; Reinartz and Ulaga 2008). Thus, in accordance with the well-known documented shift from goods-dominant to service-dominant logic (Lusch and Vargo 2006), the service sector has the great potential to co-create value in the form of memorable experiences.

The introduced measurement scale is called the customer service experience scale (CSES). Five comprehensive studies are undertaken to develop the CSES. The initial conceptualization and item generation are based on a profound qualitative study with 246 consumers. The findings reveal a five-dimensional conceptualization of the customer service experience: *atmosphere*, *escapism*, *learning*, *social environment*, and *enjoyment*. Four quantitative studies subsequently confirm the construct with its five dimensions and reveal the stability of the scale over different samples and contexts. We also demonstrate that the scale is stable and applicable when consumers evaluate past, present and future experiences. The measurement scale is modeled as a second-order construct with formative dimensions and reflective items. Structural equation modeling supports the formative structure and indicates the relevance of each of the five dimensions. In particular, *atmosphere* and *enjoyment* are found to have the strongest impact on creating customer service experiences. Furthermore, we investigate the effect on important outcome variables. It is shown that the CSES is a strong predictor for customer value perception, loyalty and price premium.

The main contribution of this article is to provide marketing managers in the service industry with a suitable measurement tool for planning and evaluating successful experiential strategies. Because a formative and holistic scale is developed, it fosters the common understanding of customer service experience and identifies what actually constitutes and drives an experience. In addition, the scale is applicable across several service industries. The formative perspective provides a new theoretical understanding of customer service experience and allows managers to



gain useful insights into the development of effective marketing strategies. Practitioners can use the scale in field or online studies to evaluate the effectiveness of their experience efforts and to determine the proper dimensions on which to focus. Finally, the scale helps to benchmark services in terms of competitors' experiences. Thus, managers can justify or adjust their experience expenditures based on the data provided by the scale. The scale development process features several advantages. First, existing conceptualizations and empirical measurement approaches are mainly based on literature reviews and refer only to specific aspects of a research domain. Thus, the customer experience construct has been integrated into studies of, for example, consumer behavior, satisfaction or service quality instead of being explored from an exploratory and theoretical perspective. Therefore, the development of the CSES is based on a profound exploratory and qualitative research in cooperation with eleven companies and 246 consumers. Thus, it can be ensured that all potential dimensions across several industries are captured. Furthermore, all consumers were directly interviewed after having had an experience. This process ensures unadulterated answers because the memories remain fresh in consumers' minds. Lastly, only service companies that explicitly promote special customer experiences through marketing campaigns or their brand name are selected to assure that the participants actually experience meaningful and real experiences.

## LITERATURE REVIEW

### Defining the Customer Service Experience Construct

In the marketing literature, the notion of experiences appears through expressions such as *brand experience* (e.g., Brakus et al. 2009), *consumer experience* (e.g., Tsai 2005), *consumption experience* (e.g., Holbrook 1994), *customer experience* (e.g., Gentile et al. 2007), *product experience* (e.g., Hoch 2002), *service experience* (e.g., Hui and Bateson 1991), or *shopping*

*experience* (e.g., Machleit and Eroglu 2000). However, these terms are often used interchangeably despite their conceptual differences. Edvardsson et al. (2005) argue that the experience construct needs to be discussed through the lens of the customer. In addition, the marketing literature in this area agrees that customer experience is a broad concept that refers to specific offerings (e.g., products or services) or phases in the customer lifecycle (Gentile et al. 2007; Verhoef et al. 2009). We concur with this perspective and consider customer experience to be the broadest concept that encompasses context-specific experiences such as service experiences. Several attempts have been made to provide a definition of what a customer experience is. There is a wide consensus in the literature that customer experience is a multidimensional construct that is holistic in nature and comprises internal and subjective consumer response to any direct or indirect contact with a service company across several touchpoints (Grewal et al. 2009; Verhoef et al. 2009; Walter et al. 2010). The service experience is thus always individual and unique for each customer. Furthermore, the customer is an active part in co-creating the experience (Prahalad and Ramaswamy 2004). Within the marketing literature, an important question is how customer experience is related to existing research streams such as customer satisfaction or service quality (Lemon and Verhoef 2016). Although prior research has integrated customer experience into satisfaction and service quality studies, we agree with the assessment of, for example, Meyer and Schwager (2007), Palmer (2010), and Verhoef et al. (2009), who regard it as a separate construct that influences important outcomes such as customer satisfaction. In addition, it is *inter alia* mentioned that a high degree of quality and satisfaction is considered to be a necessary condition for successful service experiences. Dewey (1963) and Pine and Gilmore (1998) even added a uniqueness dimension to the construct, describing successful experiences as those that stand out from the ordinary and that a customer will perceive as unique, memorable and sustainable over time. In this context, the literature also indicates that the experience concept is highly related to hedonic consumption aspects, such as

aesthetics and enjoyment (Hirschman and Holbrook 1982; Holbrook and Hirschman 1982; Palmer 2010).

### **Overview of Existing Conceptualizations and Measurement Approaches**

The concept of customer experience and the challenge of developing a robust measurement scale have previously been studied in the marketing literature (Brakus et al. 2009; Klaus and Maklan 2012; Verhoef et al. 2009). Although several conceptual and empirical concepts have been developed, the full complexity of this highly subjective construct remains insufficiently addressed (Gilmore and Pine 2002). The following overview provides a basis for existing conceptualizations and measurement approaches that are linked with customer experience. We elaborate on each concept with regard to the methodology used, the context in which the approach is developed and, if present, the applied measurement perspective (i.e., formative or reflective) (see also Table 1). Next, we explain why the existing concepts do not meet our objectives.

On a *conceptual* level, Schmitt (1999) proposes five strategic experiential modules - sense, feel, think, act, and relate - that can be used by firms to create customer experiences based on the insights of the early cognitive science and the philosophy of mind (Pinker 1997). The dimensions are closely related to Dewey's (1925) findings and Pinker's (1977) mental modules. This conceptualization is not limited to a specific industry or context; instead, it is applicable to both products and services. Gentile et al. (2007) adopt and extend Schmitt's view by adding a pragmatic and lifestyle component based on the user experience literature that consists of human-object interactions. Also based on a conceptual approach is Pine and Gilmore's (1999) framework of "staged experiences", which contain esthetic, educational, entertainment and escapist dimensions. This concept is designed to be applicable across the entire service industry, although it is explained against the backdrop of retail environments and events. The dimensions partly overlap with the above-noted dimensions: the aesthetic, sensory, educational and cognitive ("feel") components.

Berry et al. (2002) pursue a somewhat different approach and posit two categories of experience clues that organizations must recognize when managing the total customer experience: the functioning of goods and services and emitted emotions. Furthermore, Verhoef et al. (2009) propose eight determinants of customer experience. The focus is on the social environment, self-service technologies and store brand. However, the conceptualization is based on the retail setting literature and is therefore limited to a specific industry. The brand experience scale developed by Brakus et al. (2009) is the only *empirically* tested and validated scale that is applicable to both products and services. The four dimensions (sensory, affective, behavioral, and intellectual) emerge from a literature review based on the insights of cognitive scientists and philosophers and thus mainly overlap with the aforementioned conceptualizations from Gentile et al. (2007), Pine and Gilmore (1999), and Schmitt (1999). The scale is designed in a reflective manner and measures whether the experience appeals to the consumer in a sensory, affective, behavioral, or intellectual manner. Moreover, Kim et al. (2011) developed the consumer experience index, with a special focus on the service industry. Based on a literature review of articles from the popular and academic literature, seven underlying reflective dimensions of the experience construct are identified: environment, benefits, convenience, accessibility, utility, incentive, and trust. However, these items are highly specific, as they refer to hotels and their specific environment (e.g., “It is easy for me to check in at this hotel”) and are thus not applicable to other sectors. In contrast, Klaus and Maklan (2012) expressed the importance of an exploratory approach and conducted a qualitative study in addition to an extensive literature review to assess the service experience. The conceptualization and measurement scale is formatively designed. However, this qualitative study refers to the special case of mortgages. Thus, similar to the CEI, the dimensions and items are difficult to apply to other contexts. The same conclusion applies to industry-specific measurement concepts that have evolved, for example, for the tourism industry (e.g., Arnould and Price 1993;

Huang and Hsu 2010; Oh et al. 2007) or industries such as banks, restaurants and retail stores (e.g., Grace and O’Cass 2004; Jang and Namkung 2009; Mathwick et al. 2001). The dimensions are derived in a context-dependent manner, whereby only some aspects of the construct are considered.

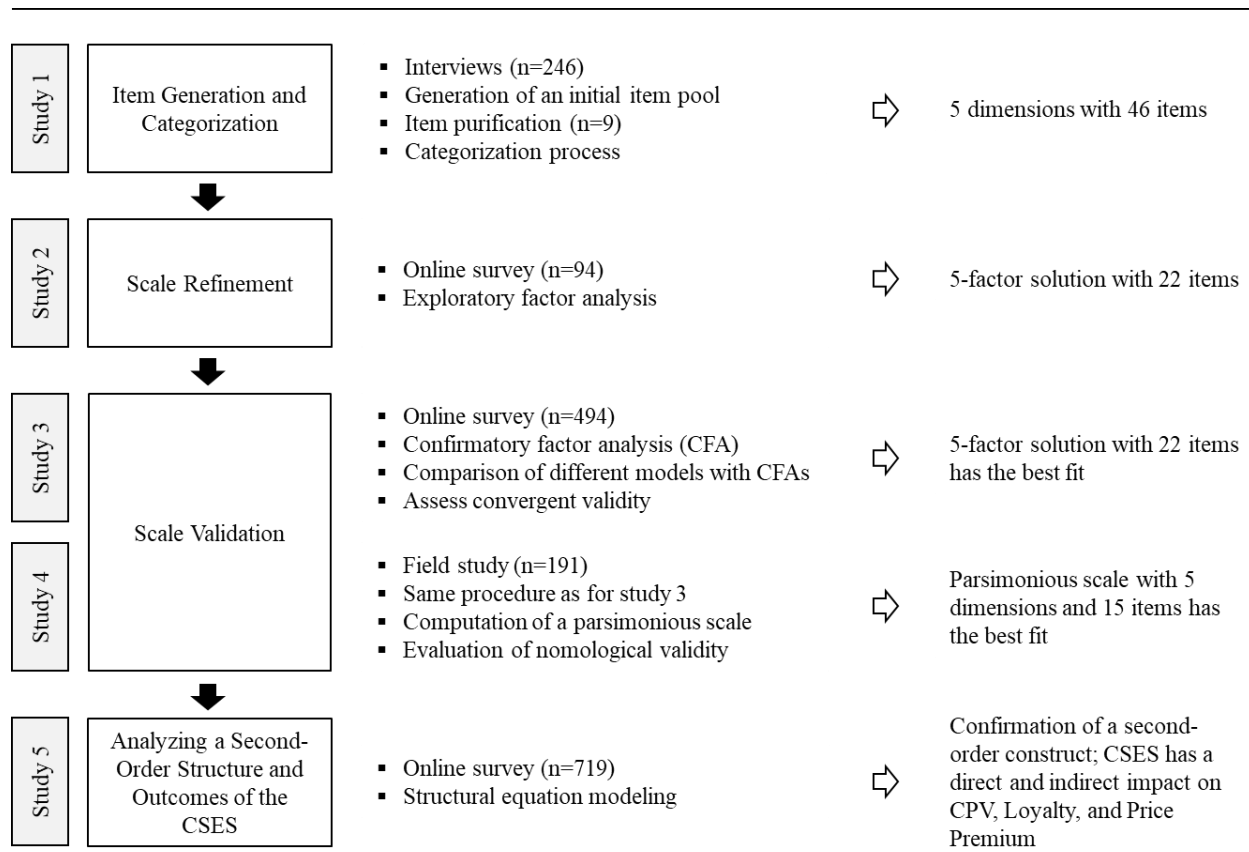
Based on the overview of the previous studies, it can be stated that both conceptual and empirical models have either been developed from literature reviews or are based on specific use cases or industries when qualitative and exploratory research is applied. Hence, the concept of customer experience has been integrated into research fields such as consumer behavior or satisfaction studies that are only partly associated with the field of customer experience. Furthermore, the only empirical measurement scale that is applicable across industries is based on a literature review and measures the experience only reflectively. Thus, only certain aspects that may constitute the construct are hitherto considered. The current study addresses these specific issues by developing a scale that closes the identified research gaps as follows: (1) In view of the fact that customer experience is a highly complex and subjective construct that encompasses the consumer’s perception along all touchpoints with a company, an exploratory research approach that brings the consumer into focus and ascertains all facets appears to be necessary. Therefore, a qualitative and exploratory approach to capture the customer’s perspective will be applied. (2) To obtain a clearer understanding of the consumer’s needs and effectively manage customer experience, it is important to identify the underlying drivers of the construct. Thus, the study targets identifying formative dimensions to detect the relevant drivers of customer experience. (3) To obtain a holistic view of the construct, it is necessary that the dimensions are not limited to a specific industry. Hence, the measurement concept will be developed in a manner that it is applicable across several industries.

	<b>Model</b>	<b>Measurement</b>	<b>Dimensions</b>	<b>Methodology</b>	<b>Context</b>
<b>Conceptual Models</b>	Experiential modules (Schmitt 1999)	-	Sense, feel, think, act, relate	Literature review	-
	Four realms of experience (Pine and Gilmore 1999)	-	Esthetic, escapist, educational, entertainment	unspecified	-
	Total customer experience (Berry et al. 2002)	-	Emotional clues, functional clues	unspecified	-
	Customer experience (Gentile et al. 2007)	-	Sensorial, emotional, cognitive, pragmatic, lifestyle, relational	Literature review	-
	Customer experience creation (Verhoef et al. 2009)	-	Social environment, service interface, retail atmosphere, assortment, price, customer experience in alternative channels, retail brand	Literature review	Retailing
<b>Empirical Models</b>	Brand experience (Brakus et al. 2009)	reflective	Sensory, affective, behavioral, intellectual	Literature review	Products and services
	Consumer experience index (Kim et al. 2011)	reflective	Environment, benefits, convenience, accessibility, utility, incentive, trust	Literature review	Services
	Service experience scale (Klaus and Maklan 2012)	formative	Product experience, outcome focus, moments-of-truth, peace-of-mind	Literature review and qualitative study	Mortgages

**Table 1: Literature Review on Existing Conceptual and Empirical Measurement Approaches**

## **DEVELOPMENT OF THE CUSTOMER SERVICE EXPERIENCE SCALE (CSES)**

The purpose of the study is to develop and empirically test a measurement concept that captures the customer experience in a formative and holistic manner. Therefore, as suggested by literature, the construct will be modelled as a second-order construct with first-order formative dimensions which are themselves measured by various reflective items (Jarvis et al. 2003; Klaus and Maklan 2012). The service industry serves as the basis for the measurement concept. The measurement construct is called the customer service experience scale (CSES). Specifically, the primary goal is to identify and validate dimensions that create the customer experience along several service industries. In accordance with Churchill's (1979) paradigm, both qualitative and quantitative methods are employed for the development of this scale. As experiences are conditioned by specific individual and situational factors, and a qualitative approach basically gains more insight into complex phenomena than quantitative measures, a full understanding of the construct's complexity is gained through a depth approach (Masberg and Silverman 1996; Woodruff et al. 1993). Therefore, a qualitative study and exploratory effort appears appropriate for the first step of scale development to obtain a deep understanding from the customer's perspective (Hudson and Ozanne 1988). As suggested by the literature, scale development proceeds in four stages: scale generation, initial purification, scale refinement and validation (e.g., Anderson and Gerbing 1982; Gerbing and Anderson 1988; Klaus and Maklan 2012; Netemeyer et al. 1995; Peter 1981, Walsh and Beatty 2007). In a first step, the formative dimensions are derived with their reflective items. After that, the construct customer experience modelled as a second-order construct is examined (Jarvis et al. 2003). Figure 1 displays the different steps used in the scale development procedure.



Note: CSES = customer service experience scale; CPV = customer perceived value; CFA = confirmatory factor analysis.

**Figure 1: Scale Development Process**

### Study 1: Scale Development

**Methodology.** At the beginning of the scale development process, the indicators have to be identified that capture the entire scope of the customer service experience construct. Therefore, qualitative data are gathered through semi-structured face-to-face interviews to uncover the dimensions that formatively capture the customer experience in the service industry. Interviews are conducted along several service industries, as the objective of the paper is the development of a holistic, cross-sectoral measurement concept. To cover a wide range of industries and to ensure that the chosen services differ with regard to their experiential appeal, eleven companies are selected from the field of tourism, dining, wellness and health, sports, culture and leisure; fields that have been studied to be relevant in the context of experiential marketing (Hirschman and



Holbrook 1982; Palmer 2010). These companies belong to the group of hedonic services that are viewed as services that imply and enhance customer experiences (Dhar and Wertenbroch 2000). These kind of industries have the potential to create experiences that have a strong emotional impact on the consumer and allow the consumer to deviate from everyday life, which is a perfect basis when investigating what truly constitutes an experience for the consumer. Only service organizations that communicate special experiences through their website or their brand name are selected for the qualitative study. One specific requirement for the qualitative study is that the customers are directly interviewed after the experience and in a natural setting of real life (Walter et al. 2010). This practice ensures that the participants are able to answer the questions about their experience precisely since the memories remain fresh in their minds and are thus unadulterated. Convergence in the data is achieved after 18 to 24 interviews per service, meaning that interviewers consequently received the same information, and there is no benefit from conducting additional interviews (Francis et al. 2010). In total, 246 interviews are conducted with German consumers within a period of four months in 2016. The sample is randomly selected. With regard to gender, 51.2% of the participants are female, and 48.4% are male. The customers' ages range from nine to 86, with an average age of 42.44 years. Table 2 provides the full details with regard to the sociodemographic profile of the sample. The interviewers (one of the authors and one graduate student) use an interview guide to enhance comparability and have special instructions for how the interviews should be conducted. The questions developed are explorative in nature, so that the respondents are not pushed toward specific answers. The interview began with a filter question that determined the further course. The participants are asked whether (or not) the service is perceived as an experience. If yes, the respondents have to evaluate the experience as either positive or negative. Then, four subsequent questions targeted for the identification of the

experience drivers were created: (1) Please describe why the service was a positive or negative experience for you. (2) What made the experience either a positive or a negative one? (3) Where there any special highlights during the experience? (4) How could the experience be enhanced? If the service is not perceived as an experience, the participants had to identify the factors that are missing. All interviews are recorded and transcribed.

<b>Variable</b>	<b>Characteristics</b>	<b>n</b>	<b>%</b>
Age	≤ 18	21	8.5
	19 – 35	69	28.0
	36 – 55	91	37.0
	56 – 75	42	17.1
	≥ 76	10	4.1
	no answer	13	5.3
Gender	female	126	51.2
	male	119	48.4
	no answer	1	0.4
Marital status	single	84	34.1
	married	143	58.1
	divorced	9	3.7
	widowed	7	2.8
	no answer	3	1.2
Education	pupil	17	6.9
	main school	24	9.8
	high school diploma	56	22.8
	A-level	47	19.1
	university degree	96	39.0
	no answer	6	2.4
Occupation	student	18	7.3
	trainee	8	3.3
	scholar	7	2.8
	full time	134	54.5
	part time	30	12.2
	house wife/ house husband	6	2.4
	pensioner	39	15.9
	no answer	4	98.4
<b>Total sample size</b>		<b>246</b>	<b>100.0</b>

**Table 2: Demographic Profile of the Sample**

**Scale Generation.** Content analysis is used for the evaluation of the data gathered. The interviews are coded with the software MAXQDA 12. The coding scheme follows a two-step approach of coding and compilation (first cycle coding) and condensation of the data (second cycle coding). Specifically, the data are initially in vivo coded, meaning that coding occurred inductively and was subsequently compiled to lower level concepts (Corbin and Strauss 2014; Tracy 2013). Thereafter, the codes are condensed through second-cycle coding, which further leads to the identification of patterns and categories (Miles et al. 2014). Two researchers (one of the authors and one graduate student) who are responsible for the project coded the responses of the interviews independently. Intercoder reliability is checked to determine the reliability of the codes. In accordance with Miles and Huberman (1994), the reliability should be above 90% to achieve a maximum consistency of coding. The results show a high level of agreement (91.04% is the minimum value), thus confirming the intercoder reliability. The formative dimensions are further measured by several reflective items. Based on the responses, 55 items are generated. Two marketing academics appraise the readability of the items in terms of the clarity of phrasing and incisiveness. Therefore, 9 items are removed, resulting in a preliminary item set of 46 items representing five dimensions. To obtain consistency in linguistic style, the items are partly rephrased such that the word “service company” occurs in each item. The dimensions that emerged from the analysis are atmosphere, escapism, learning, social environment, and enjoyment (see Table 3 for a brief description of the dimensions).

Atmosphere is noted in terms of physical surroundings and tangible aspects. For example, one interviewee from a whiskey tasting refers to “The whole atmosphere and especially the design of the shop” and suggested “The atmosphere itself. (...) That it is not so overcrowded. Very cozy”. Other consumers interviewed in a thermal bath indicate that “The whole atmosphere here is

beautiful. Very relaxing and with lots of lovely details” and stress “The silence and the environment and the light, the music. That was very nice”. Escapism is noted in terms of a customer’s escape from daily life concomitant with mental relaxation, with comments such as “It was like you get out of your everyday life, your daily routine. It was a complete different world, so heartily refreshing” and “I enjoy the slowing down of my everyday life, the silence. So you just forget about everything around you and relax”. Another significant dimension that is discussed is learning. The interviewees agreed about the increase in their general or specific skills and/or knowledge as follows: “(...) to get some information. That was very interesting. (...) You always learn something new which can be very useful” and “You get useful explanations”. The dimension of social environment is noted in the social interactions with other guests and in cultivating relationships with family and friends. For example, one interviewee says, “It is a group experience. I think the experience is even more intense in a group” and enjoyed “That we can do something interactively and together”. Finally, enjoyment is also referred to in the interviews as the amusement, fun and entertainment offered by service companies: “That was just the fun you got”, while another customer from a variety theater reports that “It is fun to watch because they do (...) a variety of activities like juggling and saying funny things”.

To summarize, the exploratory, qualitative study with 246 conducted interviews in eleven service industries manifested in five dimensions (atmosphere, escapism, learning, social environment, and enjoyment) with 46 corresponding items. These findings serve as a basis for the conceptualization and measurement of the CSES, thus providing the basis for the subsequent quantitative data analyses.

<b>Dimension</b>	<b>Description</b>
Atmosphere	The conscious design of a space to evoke certain effects and feelings for the consumer. Atmosphere is composed of tangible and intangible aspects (Bitner 1992; Kotler 1973; Puccinelli et al. 2009).
Escapism	Consumer's tendency to escape from their routines and real life (Hirschman 1985; Woodruff 1985).
Learning	Consumer's desire for self-education and engagement of the consumer's mind through the respective service company. Knowledge and skills are increased or improved, either specific or in general (Gupta and Vajic 2000; Hosany and Witham 2010; Pine and Gilmore 1999; Schmitt 1999).
Social Environment	Consumers' relationship with their social environment. Social factors, particularly human interactions, which comprise meeting and talking to new people or cultivating the relationship with family and friends (Arnould and Price 1993; Bitner 1992; Huang and Hsu 2010; Schmitt 1999).
Enjoyment	The extent to which the utilization of the service is perceived to be fun and pleasurable leading to positive feelings such as joy (Davis, Bagozzi and Warshaw 1989; Wakefield and Baker 1998).

**Table 3: Dimensions of the Customer Service Experience Scale (CSES)**

### **Study 2: Scale Reduction**

Exploratory factor analysis (EFA) is employed to test the appropriateness of the items representing the five dimensions as scale refinement. To reduce the initial item pool and confirm or reject the identified dimensions, an online survey is conducted with consumers who are requested to evaluate the experience of a well-known tourism group in Germany. In accordance with the literature, the particular service industry is selected because it provides the high potential to stimulate a consumer's emotional reactions in the form of holistic and memorable experiences (Oh et al. 2007; Otto and Ritchie 1996). Only respondents who have actually booked at least one trip through the tourism brand are allowed to participate in the study. The online questionnaire is available through an online link that is sent to German consumers. In total, 94 qualified responses are obtained. Most respondents lie in the 19 – 25 year age group and are female (60.6%) and single (72.3%) and have a university degree (57.4%). The data are analyzed using the statistical software SPSS 24.0. In a first step, the suitability of the data for factor analysis is tested. Therefore, the Bartlett test of sphericity, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, the

correlation matrix and the anti-image matrix are assessed (Hair et al. 1998). The first EFA with Varimax rotation leads to an elimination of 24 items due to insufficient values with regard to the item-to-item correlation and items with low factor loadings. Another EFA of the remaining items is conducted, resulting in a five-factor solution with eigenvalues of greater than 1.0 (Kaiser 1960) explaining 82.12 of the variance. The items load on the corresponding factors on which they should load. The results show that the data are suitable for factor analysis. The KMO measure of sampling adequacy is “marvelous”, with a value of 0.92; the chi-square value of Bartlett’s test of sphericity is 2130.35, which is statistically significant at  $p < .01$ . All inter-item correlations show satisfactory results, with a minimum value of .31, and the values of the anti-image matrix range from .87 to .96. Furthermore, all items have factor loadings above .5 (see Table 4).

Altogether, the EFA indicates satisfactory results. All values exceed their critical limits and are therefore a perfect indication for scale significance. Thus, the relevance of each dimension in explaining the customer service experience can be confirmed. The purified scale consists of five substantial dimensions with 22 items: atmosphere, four items; escapism, four items; learning, five items; social environment, five items; and enjoyment, four items. Next, the reliability and validity of the purified scale is checked considering very different contexts and samples to ensure that the dimensions and items remain stable over several use cases.

Items	Factor loadings				
	1	2	3	4	5
<i>Factor Atmosphere (ATM)</i>					
ATM1	<b>.78</b>	.38	.25	.16	.10
ATM2	<b>.70</b>	.16	.34	.27	.38
ATM3	<b>.69</b>	.32	.13	.20	.40
ATM4	<b>.67</b>	.26	.25	.35	.39
<i>Factor Escapism (ESC)</i>					
ESC1	.24	<b>.80</b>	.21	.16	.26
ESC2	.27	<b>.78</b>	.22	.16	.22
ESC3	.27	<b>.77</b>	.16	.16	.36
ESC4	.17	<b>.74</b>	.22	.25	.35
<i>Factor Learning (LEA)</i>					
LEA1	.27	.17	<b>.84</b>	.2	.10
LEA2	.17	.13	<b>.7</b>	.33	.12
LEA3	.04	.20	<b>.69</b>	.27	.44
LEA4	.31	.29	<b>.69</b>	.26	.19
LEA5	.1	.51	<b>.61</b>	.13	.40
<i>Factor Social Environment (SEN)</i>					
SEN1	.04	.11	.18	<b>.80</b>	.37
SEN2	.25	-.05	.30	<b>.79</b>	.28
SEN3	.19	.31	.19	<b>.77</b>	.22
SEN4	.29	.37	.35	<b>.65</b>	.04
SEN5	.26	.42	.3	<b>.64</b>	.08
<i>Factor Enjoyment (ENJ)</i>					
ENJ1	.19	.32	.21	.22	<b>.82</b>
ENJ2	.29	.28	.21	.24	<b>.78</b>
ENJ3	.32	.43	.16	.24	<b>.75</b>
ENJ4	.26	.30	.28	.3	<b>.72</b>
KMO	.92 ( $X^2 = 2130.35, p \leq 0.01$ )				
Total variance explained	82.12%				

Note: KMO = Kaiser-Meyer-Olkin measure of sampling adequacy;  $X^2$  = chi-square.

#### **Table 4: Exploratory Factor Analysis**

### **Study 3: Scale Reliability and Validity Check**

Confirmatory factor analysis (CFA) is performed to test the five-factor structure of the construct identified by the EFA. Therefore, an additional sample is used. The study occurred in cooperation with a particular animal zoo in Germany that focuses on biodiversity and animal welfare. Similar to the selected services for the qualitative study, the animal zoo touts special experiences during the stay. As one of the first animal zoos, an integrated canopy pathway where animals can be

watched from treetops is planned to enhance the customers' experience. The animal zoo collected the data from February to March 2017. Therefore, an online questionnaire accessible through a link is sent to repeat customers. In total, 6574 customers received access to the questionnaire, and 494 qualified responses were obtained. Most respondents are female (60.7%), married (51.2%), have a university degree (33.4%), and work full time (57.1%). The mean age is 38.08 years. With regard to visit frequency, 53% of the participants visit the animal zoo annually, 37% monthly, 3.4% once a week, 1% several times a week, and 0.4% daily. The respondents are asked to evaluate how a canopy pathway fits the animal zoo and to assess the experience to be created. Each item is rated on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree). The items are grouped by dimensions and appeared in random order.

Several CFAs are conducted to test the CSES using AMOS 25. Three measurement models are analyzed: (1) the null model in which zero correlations between all variables are assumed, (2) a one-factor model in which all items load on a single factor, and (3) the five-factor model with correlated factors obtained from the EFA. Before determining the global fit indices, the normality test of variables is performed by utilizing the skewness and kurtosis to determine whether a normal distribution is met for the maximum likelihood estimation method. As recommended by Kline (1998), all values lie in the range of -3 to 3 for skewness and -10 to 10 for kurtosis, thus indicating the normal distribution of the data. The CFA reveals that the five-factor model is the best model (see Table 5). Compared to the other models, all values exceed the required thresholds for the recommended fit indices. The inspection of the goodness-of-fit values indicates a reasonable fit: standardized root mean square residual (SRMR) = .04, normed fit index (NFI) = .93; Tucker Lewis index (TLI) = .94; comparative fit index (CFI) = .95; root mean square error of approximation (RMSEA) = .08, and  $X^2(199) = 802.04$  ( $p < .001$ ).



Model	X <sup>2</sup>	df	SRMR	NFI	TLI	CFI	RMSEA	Δ X <sup>2</sup>
Null	2372.92	209	.46					-
One factor	3564.02	209	.1	.68	.7	.69	.18	1191.1
Five factors	802.04	199	.04	.93	.94	.95	.08	2761.98

Note: X<sup>2</sup> = chi-square; df = degrees of freedom; SRMR = standardized root mean square residual; NFI = normed fit index; TLI = tucker lewis index; CFI = comparative fit index; RMSEA = root mean square error of approximation.

**Table 5: Confirmatory Factor Analysis: Model Fit Comparisons**

The standardized factor loadings for the items range from .78 to .93, all of which are statistically significant ( $p < 0.001$ ). The indicator reliabilities are above the critical value of .4; the lowest value is .6. The composite reliability (CR) also meets the required threshold of .6 (Hu and Bentler 1995):  $CR_{\text{atmosphere}} = .92$ ;  $CR_{\text{escapism}} = .92$ ;  $CR_{\text{learning}} = .94$ ;  $CR_{\text{social environment}} = .93$ ; and  $CR_{\text{enjoyment}} = .94$ . The average variance extracted (AVE) is above .5 for each dimension, thus providing evidence for convergent validity (Bagozzi and Yi 1988; Fornell and Larcker 1981):  $AVE_{\text{atmosphere}} = .75$ ;  $AVE_{\text{escapism}} = .74$ ;  $AVE_{\text{learning}} = .76$ ;  $AVE_{\text{social environment}} = .72$ ; and  $AVE_{\text{enjoyment}} = .80$ . Table 6 displays the results of the confirmatory factor analysis in the first column.

The convergent validity is also examined by investigating the correlation between the five dimensions and a global measure, the overall experience, which should be theoretically related to each other. Overall experience is assessed on an eleven-point semantic differential (1 = very negative experience, 11 = very positive experience). The results reveal a positive and significant ( $p < 0.01$ ) correlation between the CSES dimensions and the overall experience (.49 for social, .61 for escapism, .71 for learning, .79 for atmosphere, and .81 for enjoyment).

Considering the results of the CFA, the reliability and validation check of the five-factor model, with its 22 items, appear to be successful. The dimensions and corresponding items are shown to be stable in the context of a particular animal zoo and when the consumers assess a future created experience. For further validation, a second CFA with another sample is conducted to assess the consistency of the CSES.

	<b>Factor loadings – Study 3</b>	<b>Factor loadings – Study 4</b>
<i>Factor: Atmosphere (ATM)</i>	AVE=.75, CR=.92	AVE=.49, CR=.79
ATM_2	.9	.68
ATM_1	.88	.6
ATM_3	.86	.70
ATM_4	.82	.81
<i>Factor: Escapism (ESC)</i>	AVE=.74, CR=.92	AVE=.70, CR=.90
ESC_1	.9	.80
ESC_4	.86	.87
ESC_3	.85	.81
ESC_2	.84	.86
<i>Factor: Learning (LEA)</i>	AVE=.76, CR=.94	AVE=.66, CR=.91
LEA_3	.91	.84
LEA_5	.9	.91
LEA_1	.86	.85
LEA_4	.86	.74
LEA_2	.78	.73
<i>Factor: Social Environment (SEN)</i>	AVE=.72, CR=.93	AVE=.73, CR=.93
SEN_5	.87	.83
SEN_4	.86	.72
SEN_2	.85	.92
SEN_3	.83	.91
SEN_1	.82	.88
<i>Factor: Enjoyment (ENJ)</i>	AVE=.80, CR=.94	AVE=.56, CR=.83
ENJ_2	.93	.77
ENJ_3	.92	.56
ENJ_1	.88	.84
ENJ_4	.86	.8

Note: AVE = average variance extracted; CR = composite reliability.

### **Table 6: Results of Confirmatory Factor Analyses**

#### **Study 4: Further Scale Reliability and Validation Check**

The main purpose of Study 4 is to further validate the CSES to check the consistency across different populations and contexts. While the sample in Study 3 needed to judge the experience using forward-thinking, Study 4 is conducted in a real-life setting, where the consumers must evaluate their experience directly after the service. A thermal bath for special beauty and wellness treatments in Germany serves as the specific use case. The thermal bath offers an extraordinary experience, which is also advertised in its communication policy. One researcher who is

responsible for the project collected the data in collaboration with a bachelor's student in July 2017. The questionnaire containing 22 items was distributed in paper form in the thermal bath's foyer. The consumers completed the questionnaire in a separate and quiet area with no disruption from the daily business. The items are assessed on a five-point Likert scale. In total, 191 consumers participated. The respondents' mean age is 58.38 years. Most participants are female (53.9%), married (53.4%), pensioners (56%), and graduated from main school (39.3%).

To validate the scale, the same procedure used in Study 3 is applied with AMOS 25. The normality test of the variables indicates the normal distribution for the maximum likelihood estimation method, as the values for skew and kurtosis lie between -3 and 3 and -10 and 10, respectively. With regard to global fit indices, the results are very similar to those from Study 3. Utilizing the CFA, the five-factor model is again the best-fitting model, with acceptable global fit indices: (SRMR = .06; NFI = .83; TLI = .87; CFI = .89; RMSEA = .09; and  $X^2(204) = 537.79$  ( $p < .001$ )). The other models (null model and one factor model) exhibited no acceptable fit, as most of the global fit indices do not achieve the recommended threshold values (Null model: SRMR = 0.31; NFI = 0.72; TLI = 0.75; CFI = 0.77; RMSEA = 0.13, and  $X^2(214) = 888.71$  ( $p < .001$ ); One-factor model: SRMR = 0.12; NFI = 0.54; TLI = 0.53; CFI = 0.57; RMSEA = 0.18, and  $X^2(209) = 1473.84$  ( $p < .001$ )). The standardized factor loadings for each item of the five-factor model are positive and highly significant ( $p < .001$ ), ranging from .65 to .94. Indicator reliability is achieved with values of larger than .4 (.43 is the lowest value). The measures have good reliability with CRs greater than .6 ( $CR_{\text{atmosphere}} = .90$ ;  $CR_{\text{escapism}} = .94$ ;  $CR_{\text{learning}} = .91$ ;  $CR_{\text{social environment}} = .93$ ; and  $CR_{\text{enjoyment}} = .89$ ) and acceptable convergent validity with AVEs larger than .5 for all dimensions ( $AVE_{\text{atmosphere}} = .68$ ;  $AVE_{\text{escapism}} = .79$ ;  $AVE_{\text{learning}} = .67$ ;  $AVE_{\text{social environment}} = .73$ ; and  $AVE_{\text{enjoyment}} = .67$ ). The results of the CFA are reported in column 2

of Table 6. As in Study 3, the validity of the content is further checked with a correlation analysis between the five dimensions and a global measure. All dimensions show a positive and significant ( $p < 0.01$ ) correlation with regard to the global measure (.34 for learning, .37 for social environment, .44 for atmosphere, .48 for escapism, and .50 for enjoyment).

In a next step, our objective is to achieve a consistent and parsimonious scale. Thus, the three items with the highest factor loadings for every dimension are selected (ATM 2, ATM 3, ATM 4; ESC 2, ESC 3, ESC 4; LEA 1, LEA 3, LEA 5; SEN 1, SEN 2, SEN 3; ENJ 1, ENJ 2, ENJ 4). This selection allows for a focus on only the most important items, which makes future research more practicable (Churchill 1979; Ramani and Kumar 2008; Voss et al. 2003). When examining the parsimonious scale, the smaller model reveals excellent goodness-of-fit values: SRMR = .05; NFI = .92; TLI = .95; CFI = .96; RMSEA = .07; and  $X^2(85) = 170.40$  ( $p < .001$ ). The indicator reliabilities obtain values above .54, and all CRs and AVEs exceed the minimum requirements:  $CR_{\text{atmosphere}} = .86$ ;  $CR_{\text{escapism}} = .89$ ;  $CR_{\text{learning}} = .89$ ;  $CR_{\text{social environment}} = .94$ ;  $CR_{\text{enjoyment}} = .84$ ;  $AVE_{\text{atmosphere}} = .68$ ;  $AVE_{\text{escapism}} = .72$ ;  $AVE_{\text{learning}} = .75$ ;  $AVE_{\text{social environment}} = .83$ ; and  $AVE_{\text{enjoyment}} = .56$ . When comparing the goodness-of-fit values with those of the model above, the model with the three-item solution per dimension prove to be the better alternative and thus confirms the relevance of the parsimonious scale. The final items and detailed results of the CFA and the descriptive analysis are displayed in Table 7.

	Factor loadings	AVE	CR	M	SD
<i>Factor: Atmosphere</i>					
The “service company xy” creates a comfortable atmosphere.	.87			4.40	.66
The atmosphere at the “service company xy” is very pleasant.	.68	.68	.86	4.60	.55
The environment at the “service company xy” is very attractive.	.66			4.54	.59
<i>Factor: Escapism</i>					
At the “service company xy” I can immerse myself in another world.	.87			3.84	.98
The “service company xy” lets me forget space and time.	.85	.72	.89	3.82	.97
At the “service company xy” I feel free from everything.	.84			3.99	.93
<i>Factor: Learning</i>					
The “service company xy” broadens my knowledge.	.91			2.91	1.11
For me, the “service company xy” is very informative.	.86	.75	.9	3.13	1.08
The “service company xy” provides me with valuable information.	.82			3.17	1.08
<i>Factor: Social Environment</i>					
The “service company xy” enables to engage with other people.	.95			3.4	1.17
At the “service company xy” I can interact with other people.	.90	.83	.94	3.25	1.17
I can meet new people at the “service company xy”.	.88			3.34	1.24
<i>Factor: Enjoyment</i>					
I enjoy the time with the “service company xy”.	.83	.64	.84	3.93	.88
The “service company xy” is entertaining.	.81			3.81	.93
The “service company xy” offers a lot of fun.	.75			4.21	.77

Note: AVE = average variance extracted; CR = composite reliability; M = mean, SD = standard deviation; all items are assessed on a five-point Likert scale (1=strongly disagree; 5= strongly agree).

**Table 7: Final Item Set: Results of Confirmatory Factor Analysis and Descriptive Statistics**

Nomological validity is proved by examining how well the CSES relates to other important outcome variables. Therefore, the questionnaire of Study 4 contains additional scales measuring customer satisfaction, image, word-of-mouth recommendation, willingness to pay a price premium, and the intent to revisit. The five measures are assumed to be positively associated with customer experience (e.g., Brakus et al. 2009; Chang and Chieng 2006). A correlation analysis

between the CSES and related outcome variables is performed to check for the nomological validity of the measures. Single item measures are used for the outcome variables. Satisfaction and revisit intention rely on Oliver (1980) and Esch et al. (2006), whereas the single-item for image is adapted from Wiedmann et al. (2011). The items for word-of-mouth recommendation and price premium are captured by Kim et al. (2009) and Fischer et al. (2010), respectively. All 25 correlations are statistically significant at  $p \leq 0.01$  or  $p \leq 0.05$ , confirming their nomological validity and thus the predicted positive associations between the dimensions of the customer experience and related outcome variables. When comparing the individual dimensions, enjoyment is correlated the most with all outcome variables. The correlation with willingness to pay a price premium is the strongest (.68), followed by image (.54), revisit intention (.47), satisfaction (.44) and word-of-mouth recommendation (.36). Social environment reveals the weakest correlations for three outcome variables: satisfaction (.23), word-of-mouth recommendation (.17) and revisit intention (.23). In terms of image, learning shows the smallest correlation (.24). The same applies for price premium with the dimension atmosphere (.34). In sum, it appears that, in particular, the social environment is less relevant to consumers with regard to their relationships with the company, whereas customers appreciate the offered enjoyment, which is further positively translated into higher satisfaction, perceived image, recommendation behavior, and willingness to pay a higher price, as well as a higher intention to visit the service provider in the future.

To summarize, Study 4 supports and confirms the parsimonious experience scale with its 5 dimensions and 15 items. The CFA shows sufficient values, indicating satisfactory reliability and validity. The CSES must be shown to be stable over the particular context of a thermal bath, and even when consumers evaluate the experience directly after the service is used. Furthermore, Study 4 provides relevant insights into whether and to what degree each dimension of the CSES

correlates with important outcome variables for marketing success. All dimensions are found to be positively related, with enjoyment being the strongest correlator for all outcome variables. Taking Studies 2, 3, and 4 together, it can be stated that both the EFA and the several CFAs indicate the excellent significance and validation of the entire measurement scale. Therefore, the dimensions *atmosphere, escapism, learning, social environment, and enjoyment* appear to be highly substantial in explaining what actually constitutes a pleasurable customer service experience. The scale is reliable, internally consistent, and stable over several contexts and samples, as well as when the experience is assessed in the past, present and when consumers imagine future experiences. Further, the CSES is positively related to important marketing success factors. Because the measurement scale as a whole can be viewed as explaining the overall experience evoked by services, the fifth and final study examines the scale as a second-order construct with five formative dimensions which are themselves measured by reflective items using structural equation modeling. This examination finally allows us to achieve the overall objective of the paper: the development of a formative measurement concept for customer experience in the service industry. Furthermore, the predictive validity of the CSES is checked in its capacity to determine the effects of important marketing constructs, that is, customer perceived value (CPV), loyalty and price premium.

### **Study 5: Analysis of the Second-Order Structure and Predictive Power of the CSES**

Study 5 focuses on the following outcome variables: CPV and consumer behavior in the form of loyalty and willingness to pay a price premium. Prior research has already recognized the importance of creating value for customers in the form of experiences. In addition, marketing management has become aware that customer value is based on holistic and co-created experiences (Gentile et al. 2007; Prahalad and Ramaswamy 2004; Walter et al. 2010). However, evidence for

this relationship is either based on conceptual frameworks or empirical work that focuses on single elements of value perception. Thus far, there has been a lack of empirical research linking the customer experience to the overall CPV. Study 5 closes this gap and investigates the causal relationship between the CSES and CPV by utilizing several sample experiences.

In accordance with the prior research of consumer behavior, two major constructs, loyalty and willingness to pay a price premium, are chosen as the outcomes of a customer experience. Loyalty is understood as “a long-term, committed, and affect-laden partnership” (Fournier 1998, p. 343) and is used because it is one of a range of widely employed variables in consumer research and has been studied as an important outcome of customer experience (Brakus et al. 2009; Chaudhuri and Holbrook 2001; Fournier 1998, Gentile et al. 2007; Iglesias et al. 2011). In addition, price premium, i.e., the willingness of consumers to pay for different products and services, is selected as an outcome variable. Being highly substantial in the marketing literature, price premium is considered to be one of the most useful measures in the context of a consumer’s product or service evaluation (Belén del Rio et al. 2001; Rao and Monroe 1988; Zeithaml 1988).

**Hypothesis Development.** The marketing literature has already stated that managing the customer service experience consists of more than functional and rational aspects. To create a holistic and unique experience, the emotional component is also important. Thus, both the rational and/or functional and emotional components must be managed along customer touchpoints to be able to elicit strong emotional responses for the customer (Berry et al. 2002; Gentile et al. 2007). Therefore, it can be assumed that the offered experiences induce emotional consumer responses, which further affects their internal responses and cause attitudinal and behavioral outcomes. Thus, if the consumer’s perception of the experience is pleasant and positive, one can expect that the consumer will be more likely to regret if the service is no longer available and would be willing to



pay a higher price for it (Brakus et al. 2009; Ha and Perks 2005; Iglesias et al. 2011; Srivastava and Kaul, 2016). Consequently, a positive relationship between customer service experience and loyalty as well as price premium is assumed.

**H1:** The customer service experience has a positive effect on loyalty.

**H2:** The customer service experience has a positive effect on price premium.

In addition, customer experience is postulated as having a positive influence on CPV. In accordance with Holbrook, who attempts to capture the dynamic nature of experiences, customer value can be defined as “an interactive relativistic preference experience” (Holbrook 2006, p. 212). Thus, both CPV and customer experience emerge from the interaction between the customer and the service provider. Such high-quality interactions enable consumers to co-create an individual and unique experience, which will further jointly create value (Gentile et al. 2007; Prahalad and Ramaswamy 2004; Walter et al. 2010). As experiences may meet the consumer’s demand for pleasurable outcomes, they play a crucial role in the creation of superior consumer value (Edvardsson et al. 2005; Frow and Payne 2007). Hence, a positive relationship between customer service experience and CPV is suggested:

**H3:** Customer service experience has a positive effect on customer perceived value.

Furthermore, it is assumed that CPV affects the customer’s loyalty and willingness to pay a price premium. CPV is understood as a tradeoff between the benefits and sacrifices associated with the service provider from the perspective of both potential and current consumers (Oliver and DeSarbo 1988; Sweeney and Soutar 2001; Woodruff 1997). Against the backdrop of the individual experience, consumers assess the utility “based on perceptions of what is received and what is given” (Zeithaml 1988, p. 14). In accordance with Sweeney and Soutar (2001), a consumer’s evaluation refers to the offered emotional (feelings such as happiness, enjoyment, amusement),

financial (monetary aspects such as value for money), functional (perceived quality and performance), and social (consumer's social self-concept) values, which directly explain why consumers choose or avoid a particular service (Smith and Colgate 2007; Sweeney and Soutar 2001). As a "fundamental basis for all marketing activity" (Holbrook, 1994, p. 22), the prior research has already identified CPV as a key driver of consumer loyalty (Bolton and Drew 1991; Chang and Wildt 1994; Sirdeshmukh et al. 2002; Yang and Peterson 2004). Moreover, when succeeding with a favorable value strategy, consumers will enjoy and perceive the service to be more valuable. Thus, the greater the attractiveness of an offering is evaluated, the more the consumer is likely to pay a price premium compared with other service alternatives (Ravald and Grönroos 1996). Therefore, the following is assumed:

**H4:** Customer perceived value has a positive effect on loyalty.

**H5:** Customer perceived value has a positive effect on price premium.

In addition, it has been shown that loyal consumers are willing to pay a higher price because they perceive the service to be more valuable in contrast to other alternatives. This may be due to greater trust in the reliability of the service or a greater and favorable effect when consumers use it (Pessemier 1959). Thus, it can be assumed that a higher loyalty leads to a higher willingness to pay a price premium (Chaudhuri and Holbrook 2001). Consequently, we propose the following:

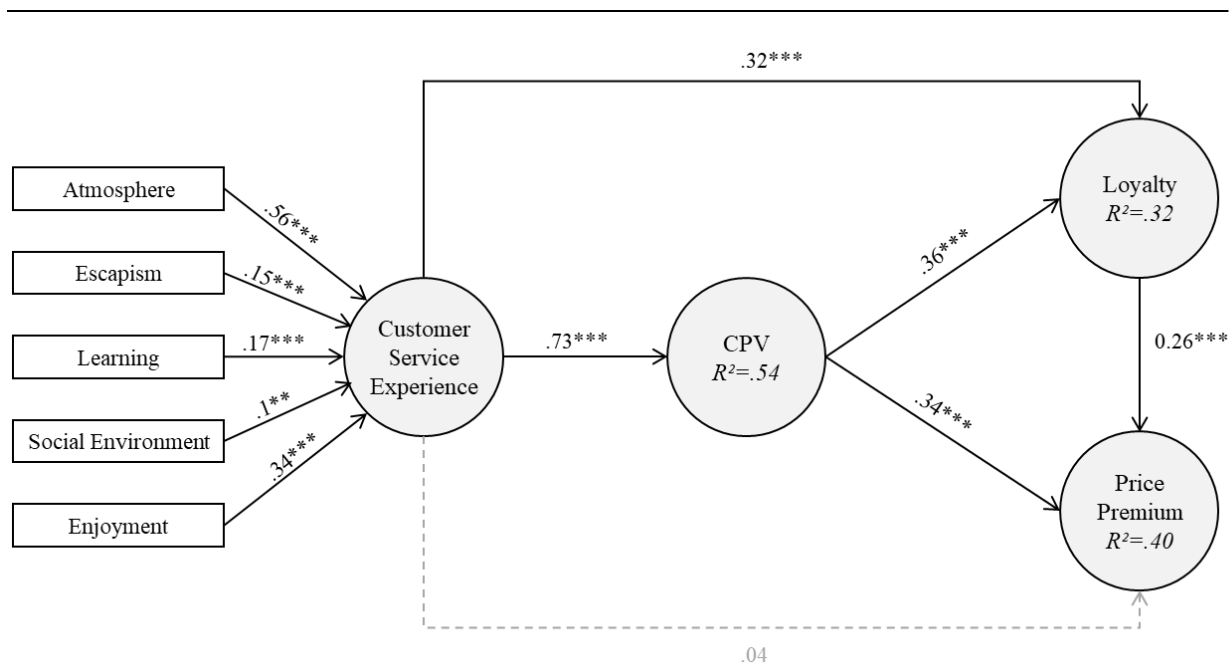
**H6:** Loyalty has a positive effect on price premium.

**Measures.** An online survey is conducted in which participants are randomly assigned to one of four selected sample experiences that vary in terms of their experiential appeal. In accordance with Pine and Gilmore's (1999) four realms of experiences (four quadrants built on two axes: active/passive participation and absorption/immersion), a visit to a museum, restaurant, swimming bath, and a city trip serve as examples for each of the four segmentations. Depending on the respective

assignment, the participants must remember a previous experience in their life and rate the extent to which the items described the experience and feelings regarding their perceived value, loyalty and willingness to pay a price premium. The CSES is measured with the 15 item-scale based on Study 4. CPV is assessed using four items inspired by Sweeney and Soutar (2001): “The service made me feel good”; “The service was reasonably priced”; “The service had consistent quality”, and “The service helped me to feel accepted”. For loyalty and willingness to pay a price premium, single-items are used: “I would regret if the service is no longer existent” and “The service is worth a higher price than other services”, inspired by Wiedmann et al. (2011) and Fischer et al. (2010). Each item is rated on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. In total, 718 consumers participated in the study. The mean age of the participants is 32.29 years. Most are female (54.0%), single (69.9%), have an A-level (43.5%) and are students (39.7%).

**Results and Discussion.** Partial least squares structural equation modeling (PLS-SEM) is applied, as the model contains formative and reflective indicators. For hypotheses testing, SmartPLS 2.0 is used. A blindfolding and bootstrapping procedure (individual sign changes) as well as the PLS algorithm (path weighting scheme) are employed. Figure 2 shows the estimated model. The data show an acceptable fit. For the formative customer experience construct, all outer weights exceed values above .1 and are significant, indicating the importance of all experience dimensions (Hair et al. 2012). The discriminant validity reveals sufficient results with construct correlations of less than .9. The maximum variance inflation factor (VIF) ranges from 1.09 to 1.98, being far below the critical limit of 10 (Diamantopoulos et al. 2008). The minimum factor loading for the reflective measurement model CPV is .51, thus affirming the indicator reliability. The average variance extracted (AVE) has a value of .56, thus providing evidence for convergent validity. Moreover,

the AVE is higher than the squared correlation with other latent constructs, confirming the Fornell-Larcker-criterion for discriminant validity (Fornell and Larcker 1981). Finally, both CR and Cronbach's alpha are satisfactory, with values above .7 (CR = .83;  $\alpha = .73$ ), indicating internal consistency reliability (Bagozzi and Yi 2012). For the evaluation of the inner model, the coefficient of determination ( $R^2$ ) is assessed. These values range from .32 to .54, indicating an adequate goodness of fit. Stone-Geisser's  $Q^2$  obtains values above zero for all endogenous and reflective variables (.3 is the minimum value) (Geisser 1974; Stone 1974). All path coefficients are positive and significant ( $p \leq 0.05$ ), except for the effect of the CSES on price premium. Thus, except for H2, all hypotheses are confirmed: The customer service experience influences loyalty directly and indirectly through CPV. Price premium is only affected indirectly through both CPV and loyalty.



Note: \*\* indicates significance at the  $p \leq 0.05$  (\*\*\*)  $p \leq 0.01$  level of confidence (two-tailed); CPV = customer perceived value; when not shown, measurement models are reflective.

## Figure 2: Predictive Validity of CSES

Specifically, with regard to the direct effects, the effect of customer service experience on CPV (.73) is twice as high as the effect on loyalty (.32). This effect confirms the high potential of

experiential marketing in creating a closer bond between the customer and the service provider as well as the strong power to create value for the customer on emotional, financial, functional and social levels. The insignificant effect of customer experience on price premium may be deduced from the influences of different services. When several service categories with different experiential focuses are combined, the overall effect could be reduced. Therefore, additional SEMs were analyzed to check whether the result differs with regard to several services. The model in Figure 2 was estimated for each sample service (museum, restaurant, swimming bath, and city trip). Notably, the insignificant path of customer experience on price premium became significant for all services, except for the city trip. This finding appears to be logical, as city trips are very expensive. Most of the consumers stated that the city trip they were thinking of was a trip abroad which, indeed, is generally accompanied by high travel and sightseeing costs.

In terms of the indirect effects, all effects are significant and positive for the dependent variables. The CPV serves as a partial mediator between customer experience and loyalty. However, the indirect impact is smaller than the direct one (.26 versus .32). For the variable price premium, there are several indirect effects. Customer service experience influences the willingness to pay a price premium through loyalty, through CPV and through both CPV and loyalty. The indirect effects through loyalty as well as through CPV and loyalty are roughly equal: .08 for loyalty ( $.32 \times .26$ ) and .07 for CPV and loyalty ( $.73 \times .36 \times .26$ ). The indirect effect through CPV is only .25 and is thus approximately three times as high as the other indirect effects. When adding the direct and indirect effects together, the total effect on loyalty is .58 ( $.32 + .26$ ), and the indirect total effect on price premium is .4 ( $.08 + .07 + .25$ ). Thus, the CSES can be viewed as a strong predictor of CPV and consumer behavior in terms of loyalty and price premium. Thus, the more a service can arouse a pleasant atmosphere, provide a sense of escape for the consumer, broaden the

consumer's knowledge, create an environment with the possibility for social interactions, and bring joy to the consumer, the more satisfied and loyal the consumer will be.

In summary, it could be shown that a formative second-order construct with five formative dimensions displays the overall customer experience evoked by service companies. All dimensions are shown to be significantly relevant. The construct influences three important variables for marketing success: CPV, loyalty, and price premium. Thus, the results provide evidence that when consumers perceive the value they expect to be delivered by an experience, they are more faithful towards the company and spend a price premium, although there may be other attractive competitive alternatives. In addition, it could be shown that the atmosphere is the strongest predictor of customer service experience and that social environment is the weakest driver. It appears that customers appreciate services that arouse a pleasant atmosphere and that this perception is then translated into a favorable experience. The relatively weak dimension of social environment suggests that it may be less relevant to consumers to interact with others and to feel a sense of group affiliation. However, the other dimensions are also highly significant and positive, thus underscoring the need for their inclusion in the measurement model.

## DISCUSSION

In today's competitive environment, companies must understand what constitutes a successful experience to meet or exceed consumer expectations and, furthermore, build a positive relationship between the customer and the service company. This paper has introduced a new measurement concept that captures the customer service experience in a formative and holistic manner. Special attention was paid to the service sector in this first attempt. By utilizing exploratory and qualitative research, five dimensions of customer service experience are initially identified and supported by subsequent quantitative data analyses: *atmosphere*, *escapism*, *learning*, *social environment*, and

*enjoyment*. The contribution to theory lies in the establishment of a measurement tool that allows marketing managers to plan and evaluate their experience efforts. The scale contains formatively derived dimensions providing information about what actually leads to an experience. Furthermore, the scale is holistically developed and thus applicable across several service industries. Therefore, the present paper can be considered an important step in providing the experiential marketing field with a holistic and sought-after conceptualization of customer service experience.

Through an extensive process of scale development, a five-dimensional conceptualization of customer service experience with corresponding items for each dimension has been developed. Four additional studies are undertaken to assess the validity and reliability of this scale. The results reveal that the scale is internally consistent and consistent across different studies and samples. The nomological validity is assessed to investigate the correlation between the dimensions and important outcome variables in the marketing literature. All five dimensions are shown to be positively related to outcome variables, supporting the assumption that an understanding of the customer experience construct and its dimensionality is important for the effective marketing activities of service companies. Furthermore, customer service experience as a formative second-order construct has also been shown to be a positive and strong predictor of customer value, loyalty, and willingness to pay a price premium. In fact, certain identified dimensions partly overlap with other previous conceptualizations (Pine and Gilmore 1999; Stein and Ramaseshan, 2016) and industry-specific measurement concepts (Huang and Hsu 2010; Mathwick et al. 2001; Triantafillidou and Siomkos 2014). This finding confirms the relevance of each dimension and the multidimensionality of the construct that affects consumers' reactions to service providers.

In addition, the measurement scale has benefits for both marketing research and practice. The well-grounded developed conceptualization and measurement construct provides researchers with an important instrument with which to study and measure experiences in several service industries. Both the use of individual experience dimensions and the overall customer service experience as a second-order model broaden the understanding of experiences in marketing services. Furthermore, for practitioners who have already recognized the importance of experiential marketing, new and helpful insights can be generated. When assessing and planning experience projects, this scale will be a useful tool. By determining the overall experience as well as the individual dimensions, the understanding of consumers as being fundamental for business success can be enhanced. Thus, companies are able to measure the effectiveness of their experience efforts and the importance of each experience dimension. Specific areas that are weak and require particular focus upon which to build can be determined. Furthermore, by analyzing the dimensions and their relationships to outcome variables, service providers are able to better decide on which experience dimension they should focus. Moreover, the validated scale may be used for market segmentation whereby customers can be segmented into groups based on their experience preferences regarding the individual dimensions. Finally, with the scale developed here, marketing managers can allow consumers to evaluate their offered experience regarding these dimensions. The scale is short, easy to administer and applicable to many service categories.

The conceptualization and operationalization of the customer service experience also provide a foundation for further research. To better understand the meaning of the construct and its consequences, prospective studies and analysis would be helpful. Of course, the current paper also includes certain limitations that present future research opportunities. Having concentrated on selected service firms with a special focus on hedonic characters, it may be of interest to extend



these findings to other service categories and firms. Future research can explore whether the CSES is transferrable to, for example, the retail or health care sector. In this context, the scale could be tested across different samples and in other cultures as well to gain cross-sectoral and cross-national data. In addition, research calls for the investigation of the drivers for online customer experiences (Novak et al. 2000; Rose et al. 2012). It might be of interest to examine whether the identified dimensions that have been derived for offline customer experiences can be transferred to the online context. For example, Novak et al. (2000), Rose et al. (2011; 2012) identified drivers such as aesthetics, arousal, enjoyment, and skill for online customer experience, which are highly related to the dimensions of the CSES and even overlap in some extent. This might be an indication that the measurement concept developed may even be relevant for the online context and thus provide evidence of successful online management. Moreover, the results show that the dimensions are stable with regard to service categories. However, a deeper investigation of the importance of each dimension is required, particularly across service categories. As examined in Study 5, the question arises regarding whether atmosphere is indeed the most relevant facet in generating a memorable customer experience and social environment the least. In addition, it is shown that the customer service experience directly influences CPV and consumer behavior in the form of loyalty and willingness to pay a price premium both directly and indirectly through CPV. This finding is of relevance for future research that should particularly investigate additional mediators or moderators as well as relevant marketing metrics. Similarly, there is a lack of research with regard to the antecedents of customer service experience. Few existing studies concentrate on the predictors of the overall customer experience; however, they do not differentiate between several dimensions. Therefore, an examination of how the individual dimensions are impacted would be insightful and an important field for future research.

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**P2:**

**Soothe your senses: A multisensory approach to customer experience  
management and value creation in luxury tourism**

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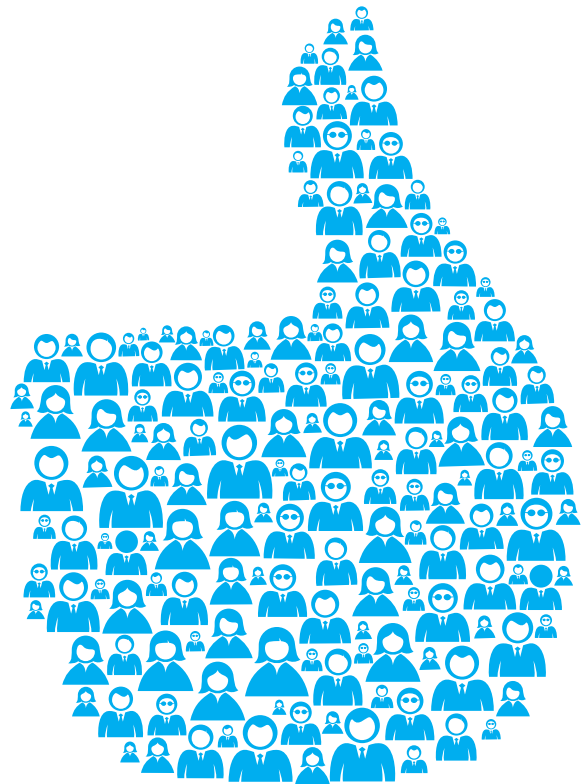
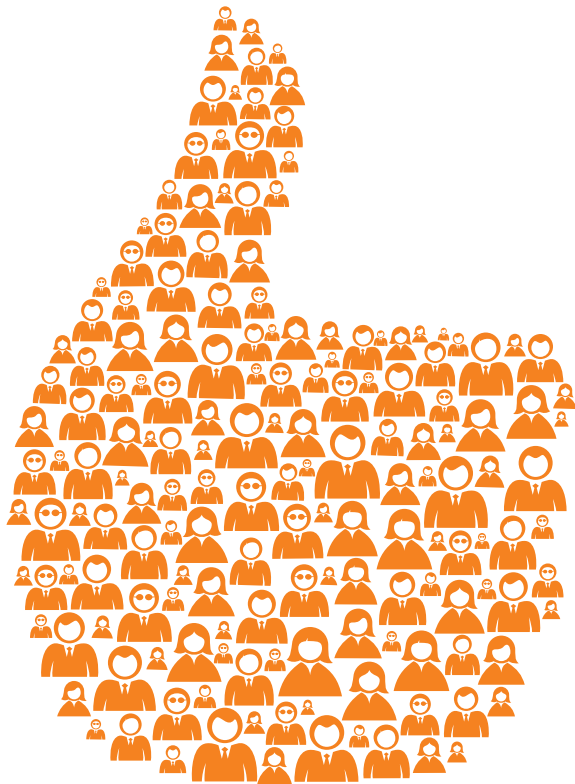
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# Soothe Your Senses:

## A Multisensory Approach to Customer Experience Management and Value Creation in Luxury Tourism

BY KLAUS-PETER WIEDMANN, FRANZISKA LABENZ,  
JANINA HAASE AND NADINE HENNIGS





A growing trend in luxury tourism is the consumer's desire for highest levels of customer service and full range travel experiences that combine first class transport, excellent accommodation and location, gourmet dining, outstanding entertainment and superior relaxation. As a consequence to the rapidly evolving consumer demands in a competitive business environment, luxury hotels seek innovative ways to create the ultimate guest experience and memorable holidays. Against this backdrop, the article focuses on a multisensory approach to customer experience management in the domain of luxury tourism.

Considered as one of the fastest growing economic sectors in the world, the travel and tourism industry is constantly evolving. Despite continuing recession in the western world, the number of international travelers is continuously increasing. Even faster than financial services, transport and manufacturing, the travel and tourism sector is forecast to continue growing at 4 percent annually.<sup>1</sup> In particular, the upscale or luxury market of international travel and tourism is rapidly expanding. In this context, luxury tourism is understood as *“travel to exclusive tourist resorts, tailor-made packages, including private jets, and an emphasis on comfort, service, relaxation, sumptuous quality, attention to detail and exacting standard. (...) More important (than the price) are the wider value-added elements, the exclusivity of the experience, and above all, the uniqueness for the consumer”*.<sup>2</sup>

A growing trend in luxury tourism is the consumer's desire for highest levels of customer service and full range travel experiences that combine first class transport, excellent accommodation and location, gourmet dining, outstanding entertainment and superior relaxation. As a consequence to the rapidly evolving consumer demands in a competitive business environment, luxury hotels seek innovative ways to create the ultimate guest experience and memorable holidays. In a multisensory approach that promises the ultimate luxurious experience, sensorial stimulation of the guests' sight, taste, hearing, smell, and touch is provided by the use of appropriate colors, tunes, scents, flavours

and materials. Against this backdrop, the article focuses on a multisensory approach to customer experience management in the domain of luxury tourism. In accordance to recent trends in the upscale travel and tourism market, the importance of delivering a fully sensual client experience is presented as an opportunity for generating customer value.

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#### Luxury Tourism – From Decadence to Exclusive Experiences

Taking into account the subjective and multidimensional character of the luxury concept in general, the meaning of luxury in the tourism sector depends on the subjective perception and individual needs of the consumer as well. While the luxury travel and tourism industry has formerly focused on materialistic attitudes, status and decadent lifestyles, nowadays, authentic and exclusive experiences are in the center of attention. Representing service excellence in a combination of travel, accommodation, wining and dining, wellness and events, more than other service industries, luxury travel and tourism has the potential to stimulate consumer emotional reactions in a holistic, memorable experience. A useful approach is a multisensory marketing concept as outlined in the following section.

#### Appeal to all Senses – Multisensory Communication in Luxury Tourism

Due to the rising number of brands and the convergence of product quality, it becomes increasingly essential for brands to stand out from their competitors. Thus, marketing communication needs to be more effective. An adequate approach to better appeal to the consumer can be found in multisensory marketing. According to Krishna (2012)<sup>3</sup> multisensory marketing can be defined as *“marketing that engages the consumers' senses and affects their perception, judgement and behavior”*. So far, brands



## THE ENTIRE EXPERIENCE A COMPANY CREATES FOR ITS CUSTOMERS IS NOT SIMPLY REPRESENTED BY THE PRODUCT OR SERVICE, BUT INCLUDES THE **WHOLE EXPERIENCE CREATION PROCESS** SUCH AS PRE-PURCHASE, MOMENT-OF-TRUTH AND POST-PURCHASE.

still predominantly focus on conveying advertising messages merely through the visual channel and, if any, the acoustic channel. However, consumer perception evolves from the composition of all five senses (sight, hearing, touch, smell and taste). Therefore, a holistic multisensory communication concept is needed. This enables not only to exploit the potential of all senses separately but also to benefit from multisensory enhancement, i.e., the positive interaction effects between the senses. So, communicating an advertising message congruently through multiple senses will strengthen consumers' perception. Hence, using all five senses may yield the maximum impact of communication. Especially with regard to the luxury industry, having the focus on an exceptional brand identity, it is of major importance to create a comprehensive and unique multisensory experience. In practice, a few luxury brands have already quite successfully adapted this approach, e.g. Burberry by impressive flagship store openings, Rolls-Royce by interactive exhibitions or Singapore Airlines by an overall multisensory communication concept compassing stimuli of all five senses, from the stewardesses' make-up to a brand-specific perfume that is exuded not only in the cabin but also in hot towels etc. In particular, luxury travel companies, and above all, luxury hotels have to carefully set various sensory stimuli, so that an extraordinary experience addressing all five senses of the consumer can be offered leading to superior customer experiences.

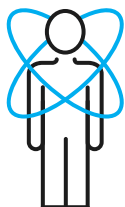
value aspects were hitherto neglected, businesses need a greater understanding of consumer behaviour. Consumers no longer merely buy products and services, but rather pay for the experience being offered. Therefore, the customer experience concept has gained increased attention among marketing scholars and practitioners. A good experience is an excellent way to add value to the customer and differentiate from the competitors, as it affects, generates and strengthens customer satisfaction, customer loyalty and contributes to repetitive purchasing.<sup>4</sup> The entire experience a company creates for its customers is not simply represented by the product or service, but includes the whole experience creation process such as pre-purchase, moment-of-truth and post-purchase. The concept of experiential marketing has been successfully applied to many businesses in different industries. Especially for luxury brands, possessing the highest level of quality and symbolic value to the customer in all touch-points, the adaption of this holistic approach is more than suitable. As an example, luxury airlines, e.g. Etihad Airways or Emirates, offering an exceptional personal treatment for first class passengers, such as inflight massages or personal chefs, can be mentioned. In particular, experiential luxury marketing can be found in the hospitality and tourism industry providing the highest experiential products such as dining and staying in a luxury hotel or visiting a hotel destination.

### They will remember how you made them feel – Creating Memorable Customer Experiences

Traditionally, companies have focused on physical and functional aspects of products such as quantity, quality, price or availability. However, competing successfully in a global market requires more than a sole concentration on those usual elements. As consumers' emotions and

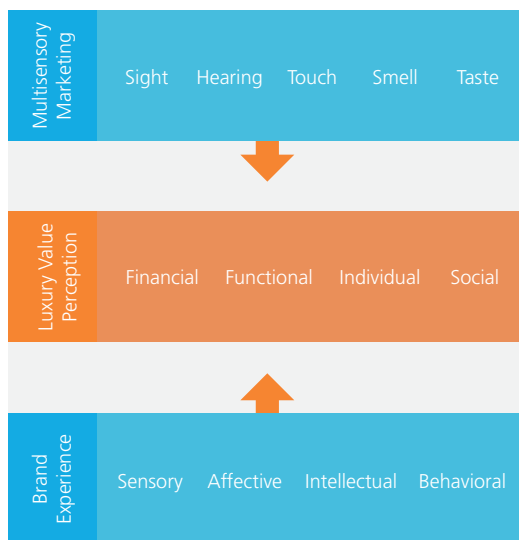
### A Value-Based Perspective on Multisensory Customer Experience Management

The orientation on customer experience as a key component in luxury travel and tourism has led to a shift in the concept of value creation. Following the principles of experiential marketing, value is co-created by hotels and guests in high-quality interaction processes. As illustrated



in *Figure 1*, consumers evaluate products, services and experiences they are getting based on a multifaceted spectrum of values. Especially in the luxury travel and tourism market, where traditionally the price component has always received specific attention (e.g., as cue for status, prestige and value for money), it has been shown that luxury consumers with different desires are less driven by costs, but driven by the individual perspective on a multifaceted value composition that includes financial, functional, individual and social components:<sup>5</sup>

**Figure 1: Conceptual Model**



In this context, the financial component of luxury value focuses on monetary aspects and prestige pricing as a signal for exclusivity and uniqueness. Even if the price may be a subordinate criterion for luxury consumers, they want good (or better: excellent) value for money. They are willing to pay a higher price, however, they know what they want and expect superior service in all respects. In a luxury travel and tourism context, customers prefer to get their money's worth with an all-inclusive package compared to a solution with extra charges for add-on-services such as internet usage, spa treatments and entertainment. Closely related to these expectations, the functional value dimension refers to the core benefits such as

superior quality and excellent performance. A hotel that claims to be in the luxury category and promises superior travel experiences has to deliver on this promise to its guest and has to fulfill the high expectations with excellent facilities, accommodations and the local tourism environment. Besides, reasoning that the service industry is a people business, excellent service means excellent personnel who anticipate consumer needs and are enthusiastic in creating personal relationships and memorable brand experiences from the guest's arrival to departure. Due to the fact that luxury is a highly subjective concept, the individual value of luxury brands represents a customer's personal orientation toward luxury consumption related to self-identity as well as materialistic and hedonistic buying motives. Aspects such as customisation and individuality have particular importance in the context of travelling. Some tourists are looking for rest and relaxation, others prefer adventure and excitement. Luxury travelers have an especially high demand for personal enrichment, privacy and authentic experiences that are very special, unique and distinct from mass travel and tourism. The passion for the exceptional, personalised travel experience can be seen in the desire for highly exclusive destinations (e.g., private islands, villas, suites, or a private beach, and pool) and personal services (e.g., a private chef, host, nanny or tour guide). Finally, the social dimension of luxury value addresses prestige orientation and status consumption. As differentiated the motives for the purchase of luxury have become, as diverse is the group of luxury tourists and travelers. Covering multiple age ranges and family situations, the market for luxury travel and tourism targets highly heterogenic segments such as the business traveler, the honeymoon couple, affluent families with children and adolescents, retirees – some of them are wealthy, others are looking for a once-in-a-lifetime experience. In sum, reflecting the subjective and multidimensional character of the luxury concept, the different dimensions of luxury value have to be addressed simultaneously in a sophisticated marketing concept to fulfill the luxury consumer's expectations.

Due to the fact that luxury is a highly subjective concept, the individual value of luxury brands represents a customer's personal orientation toward luxury consumption related to self-identity as well as materialistic and hedonistic buying motives.




The value-based orientation on multisensory approaches and memorable customer experiences has an enormous potential, especially in the luxury travel industry. Some high-end hotels are already quite successfully operating in the field of multisensory marketing. For example, the Six Senses Group, obviously positioned by its name, addresses the gustatory sense by locally inspired and sustainably sourced cuisine offering an exceptional taste experience in unique backdrops. Moreover, an emerging trend in the luxury hotel industry is given by signature scents. So do Thompson Hotels, which spread their custom-designed perfume 'Velvet' in rooms and open spaces. Moreover, all elements in the Armani Hotel are personally designed by Giorgio Armani, so that visual and aesthetic qualities are centered. In order to appeal to the acoustic sense, the Burj Khalife, for instance, plays Zen ambient relaxing music or Arabic sounds. For haptic stimulation, the Four Seasons goes for the communication of warmth through light, e.g. in terms of phototherapy or a ribbon of 500,000 LED lights. In addition, the interior is equipped with notions of the surrounding natural area.

An emerging trend in the luxury hotel industry is given by signature scents. So do Thompson Hotels, which spread their custom-designed perfume 'Velvet' in rooms and open spaces.

For the creation of memorable experiences to the customer, some luxury hotels have already been updating programs to do so. For the implementation of a sensory experience, the Armani Hotel Dubai works with delicate Armani fragrances across the hotel, exquisite and culinary food at the restaurant or panoramic views from the rooms. To affect and stimulate customers' emotions, a hotel in Singapore has karaoke screens in their limousines, which take the guests from the airport to the hotel to elicit delight and happiness. Impeccable services, 24-hour care and amenities at Hamilton Island make sure that guests feel absolutely best. Whether desert hiking or downhill skiing offered at the Four Seasons Hotels and Resorts, there are a lot of activities and special programs people can enjoy that will provide a physically active and memorable experience.

#### Conclusion and Outlook

The dream of luxury is shared on a global level and refers to all categories of products and services. One industry where consumers have particularly high demands is the luxury travel and

tourism market. Being an escape from everyday life, a holiday is often the once-a-year opportunity to relax and recover. Consequently, consumers' expectations are high – in particular in the upscale and luxury market where world-class service and an outstanding accommodation experience are expected. The luxury travel and tourism industry has to balance the preservation of traditions and heritage and the necessity to innovate according to a contemporary understanding of the luxury concept. In the rising tension between the claims of 'be true to your values' and 'innovate or die', luxury hotels have to create superior experiences and memorable holidays. In a luxury context, sensory stimulation is not a hunt for 'the next big thing', but rather a concentration on the subtle refinement of colors, tastes, fragrances, sounds and textures in an orchestrated holistic concept. Especially in an age of information overload and sensory overstimulation, a true luxurious experience provides a calming relaxation – a perfect example is the global trend of 'tech-free zones' and 'digital detox' holidays. The primary goal of a value-based perspective on multisensory customer experience management is to translate the brand's true values into a sensory customer experience that soothes the senses and relaxes the soul. 

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**Sensory stimulation** is not a hunt for 'the next big thing', but rather a concentration on the subtle refinement of colors, tastes, fragrances, sounds and textures in an orchestrated holistic concept.

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**P3:**

**The power of experiential marketing: Exploring the causal relationships among multisensory marketing, brand experience, customer perceived value and brand strength**

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## **The power of experiential marketing:**

### **Exploring the causal relationships among multisensory marketing, brand experience, customer perceived value and brand strength**

#### **ABSTRACT**

Providing customers with unique and memorable experiences to establish a positive customer-brand relationship has become one of the key challenges for brand managers. Hence, approaches to experiential marketing that appeal to all senses have increasingly gained attention. However, little is known about how to design multisensory brand experiences that lead to high and sustainable brand strength and provide the customers with a high perceived value. To better understand the causal relationships among multisensory marketing, brand experience, customer perceived value, and brand strength, we conducted an empirical study in a distinctive service industry, luxury hotels that provides a good role model for learning about an approach that targets all senses. The results of our study support the assumption that multisensory marketing is an important means to establishing brand experiences. Both are key drivers of customer perceived value and significantly influence the brand strength. Moreover, the identified causal structure reveals relevant insights into the question of which components of customer perceived value (financial, functional, social, and individual) are particularly influenced by multisensory marketing and brand experience, establishing brand strength. Hence, the findings provide interesting clues for the design of promising experiential marketing.

**Keywords:** brand experience, brand strength, customer perceived value, multisensory marketing, luxury hotel industry

## INTRODUCTION

Along with the steady growth in the number of branded products and services and the increases in the available information and distribution channels, consumers are more flexible in their decisions and have more choices than ever before. To prevail in competition, brand managers definitely need to understand what contributes to the customer's value perception and how to win the customer's loyalty (Schmitt, 1999a; Pine and Gilmore, 1999; Prahalad and Ramaswamy, 2004). Traditionally, brand management has focused on physical and functional aspects to use a convincing price/quality perception to appeal to the consumer. However, consumers now look for brands that can provide them with unique and memorable experiences (Gentile *et al*, 2007; Shaw and Ivens, 2005; Walter *et al*, 2010; Zarantonello and Schmitt, 2010). Therefore, marketing managers have acknowledged the importance of providing extraordinary experiences instead of just selling products and services to create value for the customer. Consequently, the concept of brand experience has increasingly gained attention among marketing scholars and practitioners (Brakus *et al*, 2009; Tsai, 2005), and in particular, approaches to goal-oriented experiential marketing that addresses all senses have been implemented (Lindstrom, 2005).

Due to the many interaction challenges along numerous touch-points, the implementation of memorable brand experiences is, particularly in the service sector, of high importance (Hui and Bateson, 1991; Brakus *et al*, 2009). In this context, the simultaneous response of the five senses – sight, hearing, touch, smell, and taste – becomes vital to better appeal to the consumer (Schmitt, 2009). Through a coherent and holistic multisensory approach, emotions can be intensified and linked to an overall experience, which can lead to enhanced customer perceived value and, hence, decision making and actual consumer behavior (Wiedmann *et al*, 2013; Turley and Milliman, 2000; Zeithaml, 1988; Sheth *et al*, 1991; Bolton and Drew, 1991).



In the present context, the luxury travel and tourism industry, which possesses a high level of quality and symbolic value to the customer along all touch-points, often serves as a role model for the incorporation of customer experiences into service industries (e.g., Bakker, 2005; Page, 2011). In particular, the luxury hotel segment, which accounts for the highest turnover and contribution generated in the luxury travel and tourism industry (WTTC, 2015; Liang, 2008), is an adequate example of a service industry in which brands are important for business success (Berry, 2000; Brodie *et al*, 2006). By offering a wide variety of services (e.g., outstanding accommodations, culinary highlights, and special wellness treatments), luxury hotels have a strong potential to evoke emotional reactions through holistic and memorable experiences (Nasution and Mavondo, 2008; Wu and Liang, 2009; Scott and Mowen, 2007). In detail, the highest levels of customer services are provided, continuously stimulating each of the individual hotel guests' five senses during their stay (e.g., by the use of appropriate colors, scents, and materials) (Park *et al*, 2010).

Despite a considerable number of articles providing evidence for the relationships among brand experience, multisensory marketing, and customer perceived value (e.g., Gentile *et al*, 2007; Knutson and Beck, 2004; Prahalad and Ramaswamy, 2004; Nasution and Mavondo, 2008; Walter *et al*, 2010; Hulten, 2011), there is limited knowledge among academics and practitioners about the interplay of these constructs. Further, the causal effects on brand-related outcomes are widely unexplored. Thus, the aim of this paper is to analyze the direct and indirect effects of multisensory marketing and brand experience on customer perceived value and their causal effects on brand strength. The context of our research object, luxury hotels, was therefore chosen as a first step into better understanding the relationships among the mentioned constructs. Additionally, the paper examines significant differences regarding the perception of the identified factors comparing age and net income groups, as the expectations of less or more experienced consumers might differ. The results may provide

important insights for brand managers in the service industry, particularly in the luxury hotel industry, into the ways in which the understanding of how perceived value and customer-brand relationships can be managed and improved by a deliberate placement of sensory stimuli and a proper implementation of brand experience. Further, relevant findings on how to attract and better appeal to specific consumer groups can be obtained.

## CONCEPTUAL FRAMEWORK

### Overview of the Conceptual Framework Developed

To analyze the relationships outlined above, we developed a conceptual framework that operationally captures the different constructs and highlights the assumptions regarding the possible causal relationships among them based on the existing theoretical knowledge. The basic framework is displayed in *Figure 1*. In a first step, we give a short overview of this framework and the selected variables. In the following sections, the constructs of multisensory marketing, brand experience, customer perceived value and brand strength are explained in more detail and set into theoretically assumable relations against the background of the existing literature and in view of our research focus on luxury hotels.

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Insert Figure 1 here  
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Whereas traditional marketing activities primarily emphasize, for example, communicating product benefits, experiential marketing tries to immerse consumers within the product and/or service to enhance their emotions and sense stimulation (Maghnati *et al*, 2012). In this context, experiential marketing can, for instance, encompass marketing strategies that may range from small and individual programs to special activities such as events, product demonstrations or sponsorships toward large-scale guerilla marketing (Schmitt, 1999b; Close *et al*, 2006; Gilmore and Pine, 2002). However, to incorporate a holistic and unique experience,

it is important to not only focus on specific activities but also form a multisensory experience that is predominantly induced by marketing activities in the context of a brand management strategy (Lindstrom, 2005). Each of the five senses and, in particular, a well-matched interplay can offer an enormous potential to induce positive feelings, thereby forming a memorable and emotional connection between the consumer and the brand (Hultén, 2011). To capture the idea of an integrated holistic experiential marketing concept, we first fall back on the multisensory impressions stimulated by the total brand management. Second, the perceived brand experience serves as a key proof of whether and to what extent brand management activities have a positive impact on the purpose of experiential marketing. Later in this paper, the importance of delivering a sensory brand experience is presented as an opportunity for generating customer perceived value (CPV), which can lead to sustainable brand strength. In this context, it is of special interest to analyze which CPV components are influenced by perceived brand experience and multisensory marketing and which remain largely unnoticed associated with the perceived brand experience.

### **Multisensory Marketing, Brand Experience and Customer Perceived Value**

Our conceptual model uses multisensory marketing as the starting point and, hence, as the basic key driver. Multisensory marketing can be defined as “*marketing that engages the consumers’ senses and affects their perception, judgement and behavior*” (Krishna, 2012, p. 333). For brand management, appealing to the five human senses (sight, hearing, touch, smell, and taste) has great potential; it provides the possibility to evoke favorable emotions and create a positive atmosphere that may be transferred to the brand and thereby establish a unique impression on the consumer (Hultén, 2011).

The luxury hotel sector, as a specific application example, offers manifold opportunities for the implementation of multisensory marketing to establish a positive experience for the

hotel guest (Kim and Perdue, 2013; Lindstrom, 2005). More precisely, various types of stimuli appealing to the five senses can be set. With regard to the visual sense, for example, high-end interior decoration, exceptional panorama views, and light effects at the outdoor facility can lead to outstanding optical sensations. To appeal to the acoustic sense, the hotel can play background music specifically fitting the location of the hotel in the lobby and the pool area or relaxing sounds in the spa area. Referring to haptics, the rooms can be furnished with premium materials that provide a feeling of superb comfort and wellness. Moreover, dealing with olfactory sensations, luxury hotels increasingly use signature scents that are spread in rooms or open spaces to create a unique and memorable atmosphere. Finally, to establish extraordinary taste experiences, locally inspired cuisine in unique settings can be offered (Wiedmann *et al*, 2016). Those separate sensations are then aggregated in the consumer's mind and merge into an overall experience with the brand (Hultén, 2011; Lindstrom, 2005). The quality of the experience increases with the number of senses that are addressed in a congruent way (Soars, 2009). This phenomenon is considered a super additive effect (Lwin *et al*, 2010). Furthermore, both the volume and the intensity of the applied sensory stimuli are decisive for the effective realization of brand experiences. In this context, brand management must prevent sensory overload and precisely harmonize all of the sensory stimuli to create an optimal and impactful experience (Krishna, 2012). As a result, a positive relationship between multisensory marketing and brand experience is proposed:

*H<sub>1</sub>: Multisensory marketing has a positive effect on brand experience.*

In addition, brand management can use multisensory marketing to communicate specific characteristic features of the brand and strengthen a particular identity. Especially in the field of luxury brands, multisensory appeal plays a decisive role for the consumer's value perception (Hultén, 2011; Kapferer and Bastien, 2009a). In the case of luxury hotels, various sensory stimuli may be set to convey a high-end impression of the hotel brand and emphasize the

guest's benefits. With regard to the financial component of CPV, for example, a golden color scheme (visual) or premium materials (haptic) can be used to express a high monetary value. For functionality, haptic features are of major importance such as cushion softness or a pleasant pool temperature. However, other sensations like a fresh scent after room cleaning (olfactory) or an organized facility structure (visual) can also lead to an impression of utility and quality. In terms of social value, luxury hotels can embody prestige and status in the form of high-class design (visual) or gourmet dishes from star chefs (gustatory) that the guest can tell of at home to get approval of his or her peer group. Finally, referring to the individual aspect, for example, the warmth of the spa area (haptic), relaxing sounds (acoustic) and culinary delights (gustatory) can enhance the hotel guest's pleasure and hence the degree to which the luxury hotel is valuable for himself or herself (Wiedmann *et al*, 2016). Therefore, a positive relationship between multisensory marketing and the four dimensions of CPV is suggested:

*H<sub>2a</sub>: Multisensory marketing has a positive effect on financial customer perceived value.*

*H<sub>2b</sub>: Multisensory marketing has a positive effect on functional customer perceived value.*

*H<sub>2c</sub>: Multisensory marketing has a positive effect on social customer perceived value.*

*H<sub>2d</sub>: Multisensory marketing has a positive effect on individual customer perceived value.*

### **Brand Experience and Customer Perceived Value**

In accordance with Brakus *et al* (2009), the term brand experience can be defined as “*subjective, internal consumer responses (sensations, feelings and cognitions) and behavioral responses evoked by brand-related stimuli that are part of a brand's design and identity, packaging, communications and environments*” (p. 53). Experiences occur when consumers interact with the brand and the brand's offerings at any time (Brakus *et al*, 2009; Cliffe and

Motion, 2005). Because the service industry can provide high levels of symbolic and emotional value through experiences (Mathwick *et al*, 2001), managers in the market for exclusive hotels in particular have adopted the trend that “*innovative experience design will become an increasingly important component of luxury marketing*” (Atwall and Williams, 2009, p. 345). In detail, the luxury hotel industry makes use of elements such as dining, entertainment, traveling or wellness activities to create authentic and exclusive experiences for its guests. According to Pine and Gilmore (1999), experiences are defined as highly personal and memorable and, thus, vary in terms of strength, intensity, longevity and valence. Further, the construct is conceptualized as holistic, multidimensional and highly subjective, encompassing the customer at different levels (Gentile *et al*, 2007; Pine and Gilmore, 1999; Schmitt, 1999a; Iglesias *et al*, 2011). Hence, we follow Brakus *et al* (2009) and differentiate between four dimensions of brand experience: *affective*, *behavioral*, *cognitive* and *sensory*. The *affective* component refers to customers’ moods or feelings such as fun or pleasure, which are co-generated between the customer and the provider. The *behavioral* dimension reflects personal ties with the brand that help the customer unfold individual actions or certain lifestyles (e.g., activity programs). *Cognitive* experiences comprise mental processes, for example, in terms of broadening knowledge or engaging people in deep thinking. Finally, the *sensory* component (e.g., exquisite food highlights, panoramic views) can arouse excitement and pleasure (Gentile *et al*, 2007; Aaker, 1997).

The experiences offered by luxury hotels are assumed to be stored long-lasting in consumers’ memory and to affect their subjective and internal responses, eventually causing attitudinal and behavioral outcomes (Brakus *et al*, 2009; Holbrook, 1999; Mittal and Kamakura, 2001; Nysveen *et al*, 2013). Thus, brand experiences may satisfy the consumer’s demand for pleasurable outcomes and can therefore be seen as an important part in creating superior consumer value (Edvardsson *et al*, 2005; Frow and Payne, 2007; Gentile *et al*, 2007;

Holbrook, 1999; Knutson and Beck, 2004; Prahalad and Ramaswamy, 2004). Although the price component has always appeared to be an important factor especially in the luxury travel and tourism industry, it has been shown that luxury travelers are rather driven by a multifaceted value composition including financial, functional, individual, and social components than by costs (Fitzsimmons, 2012; Wiedmann *et al.*, 2007). Concerning the wide range of luxury hotel services (e.g., accommodation, leisure activities, restaurants or shows), several facets of customer value perception are influenced by experiential marketing as well as emotional responses among the hotel guests (Petrick, 2002; Wiedmann *et al.*, 2016).

From a financial perspective, which is directly linked to monetary aspects and prestige pricing, consumers aim for a high price efficiency in terms of best or excellent value for money, even though the price plays a rather subordinate role for luxury consumers (Holbrook, 2006). This means that consumers are willing to pay a higher price to get an exceptional stay in all respects. Hence, to get good value for their money, consumers are looking for so-called add-on services which can be created by experiences further enhancing the perceived financial value in terms of price-performance ratio, high-end quality, status and exclusivity. On the functional level, closely related to the aforementioned expectations, the experiences offered may affect the perception regarding the core benefits such as superior quality and excellent performances (Bitner, 1992; Sheth *et al.*, 1991). Thus, the luxury hotel should meet (or better: exceed) the high standards of quality and expectations of the hotel guests, for example, regarding the accommodations, facilities, employee competence and local tourism environment to create an outstanding functional value to the customer. For social value, meaning prestige orientation and status, brand experiences may lead to social approval, for example, as guests can tell about their experiences (Verhoef *et al.*, 2009; Holbrook, 2006). Finally, the individual value, representing the personal alignment towards the luxury hotel, is strongly related to the customer's self-identity and hedonic motives. By experiencing the

luxury hotel brand, individual value perception arises from the customer's own pleasure (Holbrook, 2006). In particular, luxury hotels can establish experiences that consider aspects like customization and individuality. Thus, leisure activities or personal services such as a private tour guide may lead to emotions and moods like amusement, happiness or fun (Havlena and Holbrook, 1986). Consequently, a positive relationship between brand experience and customers' perceived financial, functional, social and individual value of luxury hotels is suggested:

*H<sub>3a</sub>: Brand experience has a positive effect on financial customer perceived value.*

*H<sub>3b</sub>: Brand experience has a positive effect on functional customer perceived value.*

*H<sub>3c</sub>: Brand experience has a positive effect on social customer perceived value.*

*H<sub>3d</sub>: Brand experience has a positive effect on individual customer perceived value.*

### **Customer Perceived Value and Brand Strength**

In general, the term CPV refers to a trade-off between product-related benefits and sacrifices in the perspective of both current and potential customers in different phases of the purchase process (Woodruff, 1997; Sweeney and Soutar, 2001). Understood as consumption values that directly explain why consumers choose to buy or avoid particular products (Sheth *et al*, 1991), consumers assess against the backdrop of “an interactive relativistic consumption preference experience” (Holbrook, 1994, p. 27) the “utility of a product based on perceptions of what is received and what is given” (Zeithaml, 1988, p. 14).

#### *Interplay of CPV Dimensions*

Research suggests that CPV can be conceptualized along four dimensions (Sweeney and Soutar, 2001; Smith and Colgate, 2007; Wiedmann *et al*, 2007, 2009): *financial CPV* (e.g., direct monetary aspects such as price, discount, value for money), *functional CPV* (e.g., basic



product utilities such as quality and uniqueness), *social CPV* (e.g., reference group-related aspects such as social recognition, status and prestige) and *individual CPV* (e.g., overall value assessment). Empirical evidence confirms the causal interplay of the core elements of customer value perception: The product-related components of financial, functional and social CPV have been shown to significantly influence the individual CPV, conceptualized as the customer's overall evaluation of a product or service (Hennigs *et al*, 2013, 2015). In accordance with these insights, for an empirical investigation of the complexity of customer value perception and related effects on brand strength, we suggest that the individual component of CPV is positively affected by financial, functional and social considerations:

*H<sub>4a</sub>: The financial customer perceived value has a positive effect on the individual customer perceived value.*

*H<sub>4b</sub>: The functional customer perceived value has a positive effect on the individual customer perceived value.*

*H<sub>4c</sub>: The social customer perceived value has a positive effect on the individual customer perceived value.*

#### *Effect of CPV on Brand Strength*

Because the creation and preservation of superior value are strongly related to customer satisfaction, trust and loyalty (Bakanauskas and Jakutis, 2010; Bick, 2009; Cailleux *et al*, 2009), the individual value orientation is a key success factor in brand management. The translation of the customers' value perception into a holistic experience of innovative design, precious materials, excellent workmanship and exceptional service significantly enhances brand perception and brand-related behavior (Kapferer and Bastien, 2009b; Hennigs *et al*, 2013). The set of associations and behaviors displayed by a brand's customers becomes obvious

in the strength of a brand (Srivastava and Shocker, 1991): the customer's overall attraction to a brand's offerings and the ability to differentiate them from those of competitors.

In accordance with the tripartite model of attitudes (Rosenberg *et al*, 1969; Eagly and Chaiken, 1993), brand strength includes cognitive (belief-based), affective (emotion-based) and behavioral (intention-based) components. In detail, cognitive brand strength addresses individual evaluations, beliefs and knowledge, the affective component focuses on the emotional attachment of a customer to a brand, and the behavioral component refers to consumer purchase and loyalty intentions. To empirically examine the effect of customer value perception on brand strength, in line with the insights of Wiedmann *et al* (2011) and Hennigs *et al* (2013), we suggest that the customer's overall value perception has an impact on the responses to the brand:

*H5: The individual customer perceived value has a positive effect on brand strength.*

## METHODOLOGY

### Pre-Test

Prior to the main study, we conducted a pre-test to screen the questionnaire for errors and misunderstandings and identify items to measure both constructs *multisensory marketing* and *customer perceived value* second (Seymour and Edward, 1998). To date, no adequate holistic measurement model for the concept of multisensory marketing exists. For CPV, there are various items that are not clearly selectable (e.g., Smith and Colgate, 2007; Sweeney and Soutar, 2001; Grewal *et al*, 1998; Wuestefeld *et al*, 2012). Regarding the other constructs (i.e., brand experience and brand strength), we relied on existing and previously tested measures. Based on a profound literature review and expert interviews, we received 99 items for multisensory marketing and CPV. A preliminary questionnaire in the form of an online survey was sent to German students for item evaluation. In total, 49 subjects completed the

questionnaire. The validity and reliability were checked by factor analysis and Cronbach's alpha resulting in a reduced set of 50 items. Based on the pre-test results, the questionnaire was redesigned for the main study.

### **The Measurement Instrument**

With regard to the introduced conceptual model, the constructs presented above are conceptualized as either formative or reflective. In particular, multisensory marketing and brand experience are measured formatively, whereas CPV and brand strength are measured reflectively (see *Figure 1*). To measure multisensory marketing and the four dimensions of CPV, the items identified in the pre-test were used. With regard to the four dimensions of brand experience (i.e., sensory, affective, behavioral, and intellectual), we adapted the original scale developed by Brakus *et al* (2009). With reference to the brand strength, we relied on the reflective measurement scale that was validated in a luxury brand context, as suggested by Hieke (2010). Finally, all applied items, both formative and reflective, were specified to a luxury hotel context and rated on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree).

### **Data Collection and Sample**

The investigation of the proposed research model was initiated on the basis of a quantitative study among consumers in Germany. Therefore, an online survey was run from 2-15 July 2015 and participants were recruited through invitation links. As a fundamental requirement, only those people who were familiar with luxury hotels were allowed to participate in the study. More precisely, a filter question at the beginning of the survey was used in relation to the respondents' familiarity and previous experiences with luxury hotels in general and, more specifically, with the best known luxury hotel brands (e.g., Armani Hotel,

Costas Christ, Four Seasons, Ritz Hotel). Only those respondents with an adequate knowledge about luxury hotels were invited to answer the questions presented in our model. In detail, the specific requirement was the familiarity of at least one renowned luxury hotel brand. All others were screened out by the filter question.

A total of 552 questionnaires was received. The sample characteristics are shown in *Table 1*. The participants' age ranges from 17 to 71 years, with an average age of 31.14 years. The gender distribution is almost equal (i.e., 50.9% women and 48.4% men). Furthermore, regarding the educational level, a high school diploma is the minimum requirement (62.5%). Most of the participants are students (47.1%) or full time employees (37.5%), still have an income lower than 1000 € (18.5%) or already higher than 4000 € (21.6%) and are single (70.1%). With special attention to the educational level, the chosen sample represents not only actual but also potential visitors of luxury hotels since they can expect a high income in the future and therefore might belong to the relevant target group in the mid- or long-term.

The questionnaire was divided into three parts: the first section included introductory questions about the respondents' familiarity with luxury hotels in general and their awareness of specific luxury hotel brands in particular. The second and main section included inquiries into the aforementioned variables, such as multisensory marketing, brand experience, CPV and brand strength. Finally, the third section presented questions regarding the respondents' social demographics.

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### **Data Analysis**

For a descriptive analysis of the sample profile and to examine specific criteria for evaluating the measurement models (e.g., Cronbach's alpha, Pearson correlation coefficient, and variance inflation factor), we used SPSS 24.0. With regard to our conceptual model, that

comprises both formative and reflective indicators, we applied partial least squares structural equation modeling (PLS-SEM) to empirically test our hypotheses. Following a two-step approach, the analysis contains an evaluation of the measurement models (outer models) first and an evaluation of the structural model (inner model) second (Henseler *et al*, 2009). For this purpose, the analysis software SmartPLS 2.0 (Ringle *et al*, 2005) was employed, including the PLS algorithm (path weighting scheme) and a blindfolding and bootstrapping procedure (individual sign changes). Additionally, reasoning that the sample used in this research does not only represent actual but also potential visitors of luxury hotels, it might be interesting to examine to which degree various groups of consumers differ regarding their level of expectations. For instance, younger and poorer consumers, who are probably less experienced, might differ from more mature and experienced consumers, who may have more personal memories and brand experiences from luxury hotels. Therefore, after the identification of the direct and indirect effects of multisensory marketing on the aforementioned variables, a two-way analysis of variance (ANOVA) using SPSS 24.0 was conducted to examine possible differences across younger (< 30 years) and older ( $\geq$  30 years) as well as poorer (< 4,000 €) and more wealthy consumers ( $\geq$  4,000 €).

## **RESULTS AND DISCUSSION**

### **Structural Equation Modeling**

#### *Evaluation of the Measurement Models*

*Table 2* presents the indicators and corresponding items of the formative measurement models (i.e., multisensory marketing and brand experience). With reference to statistical quality criteria, all outer weights are significant and above 0.1, as suggested by Hair *et al* (2012). Thus, the indicators produce the proposed factors and load on their appropriate factor, as intended (Diamantopoulos *et al*, 2008). Further, the maximum variance inflation factors

(VIF) for multisensory marketing and brand experience are 1.829 and 1.908, respectively, complying with the cut-off value of  $VIF < 10$ . Thus, unstable indicator weights due to multicollinearity between indicators can be precluded (Diamantopoulos *et al*, 2008). Finally, in support of external validity, the results indicate a highly significant and positive correlation for all indicators with their respective global measures (Diamantopoulos and Winklhofer, 2001) (see *Table 3*).

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With regard to the reflective measurement models, *Table 4* gives the respective items. To assess the reflective constructs (i.e., the four dimensions of CPV and brand strength), we followed the suggested quality criteria of Chin (1998). All indicators show satisfactory factor loadings, thus supporting indicator reliability. Additionally, in terms of convergent validity, the estimated average variance extracted (AVE) ranges from 60.3% to 77.5%, fulfilling the requirement of at least 50%. Both Cronbach's alpha and composite reliability take values above 0.7, indicating internal consistency reliability (Henseler *et al*, 2009; Hair *et al*, 2011). Eventually, discriminant validity (Fornell-Larcker criterion) reveals sufficient results (Fornell and Larcker, 1981) (see *Table 5*).

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### *Evaluation of the Structural Model*

To assess the structural model's quality, we focus on variance-based and non-parametric evaluation criteria (Chin, 1998; Henseler *et al*, 2009). To evaluate the inner model, the coefficient of determination ( $R^2$ ), which represents the amount of explained variance of the endogenous latent variables, shows satisfactory values ranging from 0.321 to 0.607. Additionally, Stone-Geisser's  $Q^2$  reveal values higher than zero for all endogenous and reflective constructs, thus supporting an adequate predictive power of the overall model (Geisser, 1974; Stone, 1974) (see *Table 6*).

To test the postulated hypotheses, we ran a non-parametric bootstrapping procedure (individual sign changes, 552 cases and 5000 subsamples). *Table 7* reports the path coefficients and their significance, which provides evidence of the inner model's quality.

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The first hypothesis addresses the relationship between multisensory marketing and brand experience. The findings show a significant and positive effect on brand experience ( $b = 0.587$ ,  $p < 0.001$ ), providing full empirical support for hypothesis  $H_1$ . For the second set of hypotheses, it is assumed that multisensory marketing has a positive effect on the four dimensions of CPV (i.e., financial, functional, social, and individual). The results verify a significant and positive impact of multisensory marketing on the three dimensions of financial ( $b = 0.282$ ,  $p < 0.001$ ), functional ( $b = 0.584$ ,  $p < 0.001$ ), and individual CPV ( $b = 0.217$ ,  $p < 0.001$ ). Hence, hypotheses  $H_{2a}$ ,  $H_{2b}$  and  $H_{2d}$  are confirmed. The path coefficient indicating the impact on social CPV is insignificant, which suggests no causal relation between these latent constructs ( $b = 0.065$ ,  $p > 0.1$ ). Thus, hypothesis  $H_{2c}$  is rejected. The third set of

hypotheses focuses on the relationship between brand experience and the four dimensions of CPV. The findings show a significant and positive impact on financial ( $b = 0.353$ ,  $p < 0.001$ ), functional ( $b = 0.111$ ,  $p < 0.01$ ), social ( $b = 0.545$ ,  $p < 0.001$ ) and individual CPV ( $b = 0.349$ ,  $p < 0.001$ ). Thus, hypotheses H<sub>3a</sub> - H<sub>3d</sub> find empirical support. For the causal interplay between the individual CPV and the product-related dimensions, the results verify that the financial ( $b = 0.220$ ,  $p < 0.001$ ), functional ( $b = 0.099$ ,  $p < 0.01$ ), and social dimension ( $b = 0.093$ ,  $p < 0.05$ ) are significantly positive related to individual CPV. Therefore, hypotheses H<sub>4a</sub> - H<sub>4c</sub> are confirmed. Finally, the last hypothesis assumes that individual CPV affects brand strength. The study affirms a significant and positive impact on brand strength ( $b = 0.774$ ,  $p < 0.001$ ). Thus, full empirical support is provided for hypothesis H<sub>5</sub>.

As a result, the assessment of the measurement models and the structural relations confirms the above introduced conceptual model. 12 of the 13 hypotheses find full empirical support for the direct and indirect relationships among multisensory marketing, brand experience, CPV and brand strength (see *Figure 2*).

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Insert Figure 2 here  
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### **Two-Way Analysis of Variance (ANOVA)**

As a supplementary step, a two-way ANOVA was used to examine possible differences between younger and older as well as poorer and wealthier consumers with regard to their perception of luxury hotels. For this purpose, age (A) and net income (I) were set as independent (grouping) variables and the factors that were identified against the backdrop of the conceptual model represented the dependent variables. *Table 8* and *Table 9* illustrate the results. In detail, *Table 8* shows ten significant differences at least at the 10%-level. Thus, the findings confirm dissimilarities between the groups regarding their perception of multisensory



marketing, brand experience, the four dimensions of CPV, and brand strength. *Table 9* displays the magnitude of the differences (i.e., means and standard deviations).

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Concerning multisensory marketing, the results reveal that consumers with a high income show a significantly better evaluation in comparison to consumers with a low income ( $\bar{X}_{low} = 3.647$  vs.  $\bar{X}_{high} = 3.816$ ;  $F_{1-463} = 7.529$ ,  $p < 0.01$ ). In detail, wealthy consumers are more likely to agree with statements that the multisensory design of luxury hotels is very appealing. However, younger and older people are rather undecided about the design of a multisensory marketing in luxury hotels ( $\bar{X}_{young} = 3.66$  vs.  $\bar{X}_{old} = 3.749$ ;  $F_{1-463} = 0.883$ ,  $p > 0.1$ ). Furthermore, significant differences are found regarding the assessment of brand experiences in luxury hotels. Both wealthier ( $\bar{X}_{low} = 2.823$  vs.  $\bar{X}_{high} = 3.087$ ;  $F_{1-463} = 5.854$ ,  $p < 0.05$ ) and older consumers ( $\bar{X}_{young} = 2.8$  vs.  $\bar{X}_{old} = 3.068$ ;  $F_{1-463} = 8.957$ ,  $p < 0.01$ ) are more likely to agree to statements such as “*Luxury hotels induce feelings and sentiments*”. In terms of CPV, the results reveal significant differences for all four dimensions. In particular, older people constantly evaluate the financial, functional and social value perception higher (i.e., the evaluation of luxury hotels in terms of exclusivity, high-end quality, and approval from others). With regard to the financial value, the results also show a significant difference for the two income levels. Similar to multisensory marketing and brand experience, wealthier consumers rate the monetary value of luxury hotels higher ( $\bar{X}_{low} = 2.913$  vs.  $\bar{X}_{high} = 3.276$ ;  $F_{1-463} = 8.894$ ,  $p < 0.01$ ). Referring to the individual value perception and brand strength, further significant differences exist. In both cases, high earners have higher expectations than low earners ( $\bar{X}_{low} = 3.446$  vs.  $\bar{X}_{high} = 3.782$ ;  $F_{1-463} = 9.578$ ,  $p < 0.01$ ;  $\bar{X}_{low} = 3.2$  vs.

$\bar{X}_{high} = 3.58$ ;  $F_{1-463} = 11.663$ ,  $p < 0.01$ ). Finally, a significant difference regarding brand strength can also be verified for the two age levels, where older consumers are more consentaneous to statements like “*It is very likely that I will recommend luxury hotels to my friends*” ( $\bar{X}_{young} = 3.196$  vs.  $\bar{X}_{old} = 3.495$ ;  $F_{1-463} = 6.515$ ,  $p < 0.05$ ).

### **Discussion of the Confirmed Conceptual Model**

First, multisensory marketing could be identified as an important way to influence brand experience and customer perceived value and to build brand strength in the chosen context of luxury hotels. In detail, the results support the basic assumption that it always needs an integrated approach to all senses (Lindstrom, 2005). In the present context, all sensory drivers were shown to be significantly relevant, with the visual and gustatory perception as the most powerful drivers ( $b = 0.370$ ,  $p < 0.001$ ;  $b = 0.326$ ,  $p < 0.001$ ). In addition, acoustic and olfactory perception each play a significant but less important role ( $b = 0.250$ ,  $p < 0.001$ ;  $b = 0.205$ ,  $p < 0.001$ ). Haptic perception seems to be the weakest driver ( $b = 0.185$ ,  $p < 0.01$ ). This might be explained by the fact that haptic stimuli are rather perceived subconsciously. Additionally, for olfactory and acoustic stimuli, it can be assumed that a dominant implicit information processing leads to a weaker explicit impact. Although the results are in line with the existing research highlighting the strong impact of visual stimuli (Krishna, 2012), the study indicates the significance of all senses. Thus, the results give good evidence that a multisensory marketing concept that addresses all five senses is important.

Further, multisensory marketing shows a strong positive impact on the perceived brand experience. Although the composition of various sensory stimuli explains only 34.5% of the brand experience, the sensory dimension could be identified as the strongest driver of the formatively measured brand experience construct ( $b = 0.582$ ,  $p < 0.001$ ). With regard to the other drivers, this dimension is clearly two times stronger in constituting a brand experience,

compared to the affective dimension ( $b = 0.144$ ,  $p < 0.001$ ), or at least nearly, compared to the behavioral ( $b = 0.215$ ,  $p < 0.001$ ) and intellectual dimension ( $b = 0.302$ ,  $p < 0.001$ ). Nevertheless, in the given context of luxury hotels, for the implementation of a holistic experiential brand management concept, the integration of various sensory stimuli alone is not sufficient. A closer look at the different strengths of the brand experience drivers supports the assumption that luxury hotels can attract consumers by a specific emotional appeal, intellectual enthusiasm and attractive behavioral options. Against this background, the question of whether and to what extent sensory stimuli can be linked to convincing emotional, cognitive, and action-related incentives may be important to discuss for both luxury hotels and companies that are interested in implementing multisensory marketing as a promising brand management tool.

Further, multisensory marketing positively affects CPV. That influence is either direct or indirect through the perceived brand experience. With regard to social CPV, brand experience acts as an important moderating variable because multisensory marketing has no significant and direct impact. Thus, only when brand experience is detected as a specific composition of a multisensory mix, social CPV in terms of impressing others or obtaining social acceptance perceived more positively. In particular, for customers who consider social CPV to be particularly important, the multisensory design must be consistent with a clearly discernible brand experience. With regard to the other CPV dimensions, the perceived brand experience also plays a significant and major role. Concerning the financial and individual CPV, the indirect impact of multisensory marketing through the perceived brand experience is obviously stronger than the direct effect on the value dimensions. In contrast, the direct impact of multisensory marketing on functional CPV is much stronger than the indirect one. In sum, the relationships between the strength of the direct and indirect effects might provide some basic hints for strategically directing and planning the design of multisensory marketing. For instance, to reach a strong financial CPV, the design of sensory stimuli must basically

communicate material value and price worthiness and be aligned with a specific brand experience. For example, when visiting, for example, an Armani hotel, the building, furniture, room, restaurants, and meals must generally stimulate a material value and price worthiness perception. However, it is even more important that the sensual design be aligned with something what we might call a specific Armani brand experience, but such a specific brand experience-centered design should not fall behind the basic expectations regarding the value-for-money relationship. The results indicate that it is important to dig deeper into the understanding of such relationships between basic and brand experience-specific value expectations. In the case of functional CPV, for example, experiments of designing brand experience must not be a burden on basic expectations with regard to a luxurious pampering approach to the senses. The fact that the functional CPV is perceived to be more independent of a specific brand experience seems quite obvious, as it is very much about the fulfillment of basic benefit expectations compared to the other CPV dimensions. In terms of social CPV, basic sensual expectations do not matter. In view of the individual CPV, a specific balance between the fulfillment of basic and brand-specific expectations is also crucial. However, the brand-specific expectations are again distinctly stronger.

For the causal interplay between the dimensions of CPV, the individual CPV is significantly influenced by the product-related financial, functional and social evaluations of luxury hotels. However, in contrast to the financial CPV, with a coefficient of 0.22, the impact of functional and social CPV is trivial. Thus, the fulfillment of a value-for-money expectation leads to a positive individual value perception. The small influence of the other value dimensions might arise because functional qualities and the possibility to gain social attention and acceptance act as so-called hygiene factors for the special case of luxury hotels.

To be able to establish distinctive brand strength with the help of multisensory marketing and the mediation of brand experiences, special focus must be placed on the mediation of a

strong individual CPV. In particular, the brand strength is very strongly influenced by the individual CPV. Therefore, it can be understood as an important driver because it explains approximately 60% of the variance which provides a very high explanation contribution.

As a result, the data analysis shows that multisensory marketing and brand experience can contribute as success drivers for the generation of CPV and may affect consumers' beliefs, emotional attachment and behavior accordingly. To gain and sustain brand strength, the management of a perceived individual CPV is of high relevance. With regard to our empirical model, we are able to explain approximately 60% of the variance of individual CPV. Hence, at least in the sector of luxury hotels, a multisensory experience approach can be actually seen as an extraordinarily important principle. However, the empirical results show – as highlighted above – the necessity of designing such a multisensory marketing approach in a differentiated way with regard to the interplay of basic and brand experience-specific value propositions.

Apart from that, the results of the two-way ANOVA show that, when investigating the perception of luxury hotels, a distinction between consumers regarding their age and income reveals further insights. Across all seven dependent variables (see *Figure 3*), people over 30 (solid line) consistently rate luxury hotels better than people under 30 (dashed line). Young consumers are apparently not yet that appreciative of luxury hotels as older consumers are. One reason can be found in the living standard. With increasing age, the level of what we are used to and what we demand clearly rises. Consequently, some specific products and services such as luxury hotels get first relevant at a certain age. In addition, young people tend to be more active and may, for example, seek their experience not in the hotel itself but rather outdoors (e.g., in the nature or bars). Furthermore, consumers with a monthly net income of more than 4,000 € (right side on the x-axis) consistently evaluate luxury hotels better than consumers with a monthly net income below 4,000 € (left side on the x-axis). Obviously, the standard of living does not only increase with age but also with income. Hence, high earners may more likely

appreciate luxury hotels as they offer a high standard and meet such high demands. Moreover, people tend to have a negative attitude towards objects they cannot afford at the moment, which enhances the income effect. For example, the financial value is rated significantly different by the two income groups due to the different bases of comparison concerning what is expensive or not.

Finally, interaction effects between age and income can be excluded as the two lines run fairly parallel to each other. The only exception, however not significant, is given concerning the social CPV. Here, the solid line representing older consumers substantially rises from the low income to the high income level, as seen before in the other cases. In contrast to that, for young consumers, the ratings appear to be equal across the two income levels. This may be explained by the relevance of luxury hotels for the respective peer group. Young consumers may not expect high social approval when they tell their friends of a stay in a luxury hotel as it is generally not held in such high esteem at their age group. The same applies to low earners, but the opposite is true for high earners which socialize with people that more likely also appreciate luxury hotels. In conclusion, it can be stated that the differences between the consumer groups are existent and partly significant. However, the gaps are not vast and the means of the evaluation are still mainly positive for all groups. Hence, young consumers that have a certain educational level and may thus be future guests show a high potential as relevant target group. Consequently, luxury hotel managers may also try to attract the attention of young people, for example, through targeted advertising campaigns or special offers.

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## CONCLUSION

As a consequence to the rapidly changing consumer demands in today's economy, brand managers face the challenge of creating a closer bond between the consumer and the

brand by delivering memorable multisensory experiences. In view of this, the aim of the present study was first to determine the effects of an experiential marketing approach that addresses all five senses on customer perceived value and brand strength, and second to verify possible differences regarding the perception of various consumer groups. Special focus was given to the luxury hotel industry, which offers a strong potential to create positive guest experiences through a wide variety of services. In detail, for the implementation of a multisensory marketing concept, luxury hotels continuously stimulate the each of the individual hotel guests' five senses during their stay. Specifically, several stimuli can be set, such as the use of suitable colors, flavors, materials, scents or tunes. By forming a complete experience with the brand, it is crucial to manage the volume and intensity of the senses effectively to prevent information overload and sensory overstimulation.

The empirical findings of our study support the assumption that a coherent multisensory marketing strategy has enormous potential to induce a memorable brand experience that further creates customer perceived value and brand strength, particularly in the luxury hotel industry. The results give evidence that an experiential marketing approach that encompasses an orchestrated stimulation of the senses can affect various dimensions of customer perceived value, including financial, functional, social, and individual value perception. Additionally, it has been shown that the interplay of these individual evaluations builds a positive brand strength that results in affective, cognitive and conative responses to the brand. Therefore, from a managerial perspective, brand managers should focus on a multisensory experience approach that creates perceived value to the customer and helps build a positive relationship between the customer and the brand to successfully differentiate themselves from their competitors. So, as shown in our study, for marketing managers who want to successfully implement and supervise these marketing activities, it is recommended to use the suggested quantitative measurement scales for marketing research. Moreover, when investigating the perception of luxury hotels, a

distinction between different age and income groups might be useful. As the two-way ANOVA revealed significant differences, further insights on what these consumer groups think and, hence, how to better appeal to them can be gained.

As the sample used in the study serves as a first verification of the proposed model, future research dedicated to detecting the full potential of an experiential marketing approach should also incorporate the actual population visiting luxury hotels to identify all of the brand experience drivers that further generate a positive customer-brand relationship. Besides, obtaining a deeper understanding of such relationships between basic and brand experience-specific value expectations to design a promising multisensory marketing is an important question for future research. Based on this, more research in the form of observations and experiments are needed to analyze, for example, the effects of different combinations of sensory stimuli (e.g. specific colors, shapes, images, sounds, odors, tastes, surfaces, materials) and their impact on customer value perceptions, leading to high brand strength. What might be a workable approach for a multisensory marketing design of an Armani hotel compared to other luxury hotels – or, for example, “The Address” in Dubai compared with the “Dragon King Hotel” in Beijing? To date, the existing research is far from being able to give theoretically well-founded answers. In the light of the results of our study, it can be said that such research efforts are very worthwhile.

In this context and to generalize the findings of the study, the constructs and identified relations should be further validated in different service industries and with respect to specific brands. Additionally, the identification of demographics and cultural differences regarding consumers’ response may provide important insights and implications for a beneficial branding strategy. Moreover, because the research design of the present study concentrate on consumer reactions to multisensory marketing and brand experience in an explicit (conscious) way, a combined qualitative-quantitative approach that encompasses explicit (conscious) and implicit



(unconscious) facets may provide more useful insights into consumer awareness and perception.

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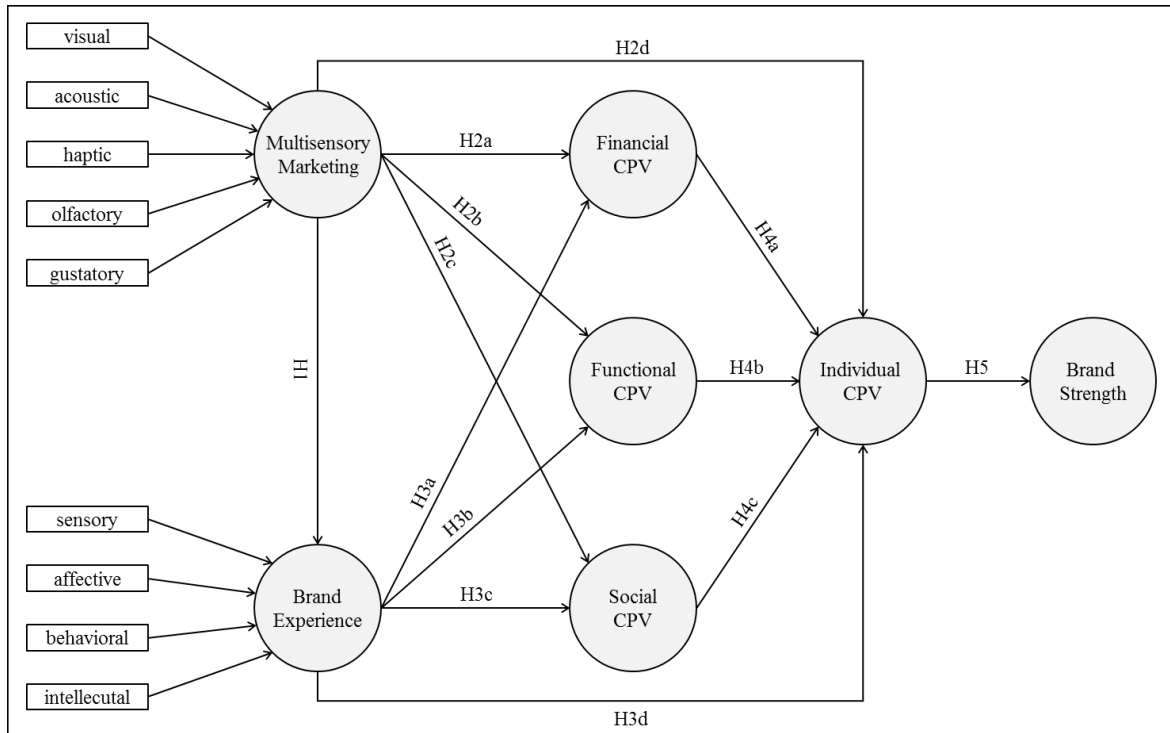


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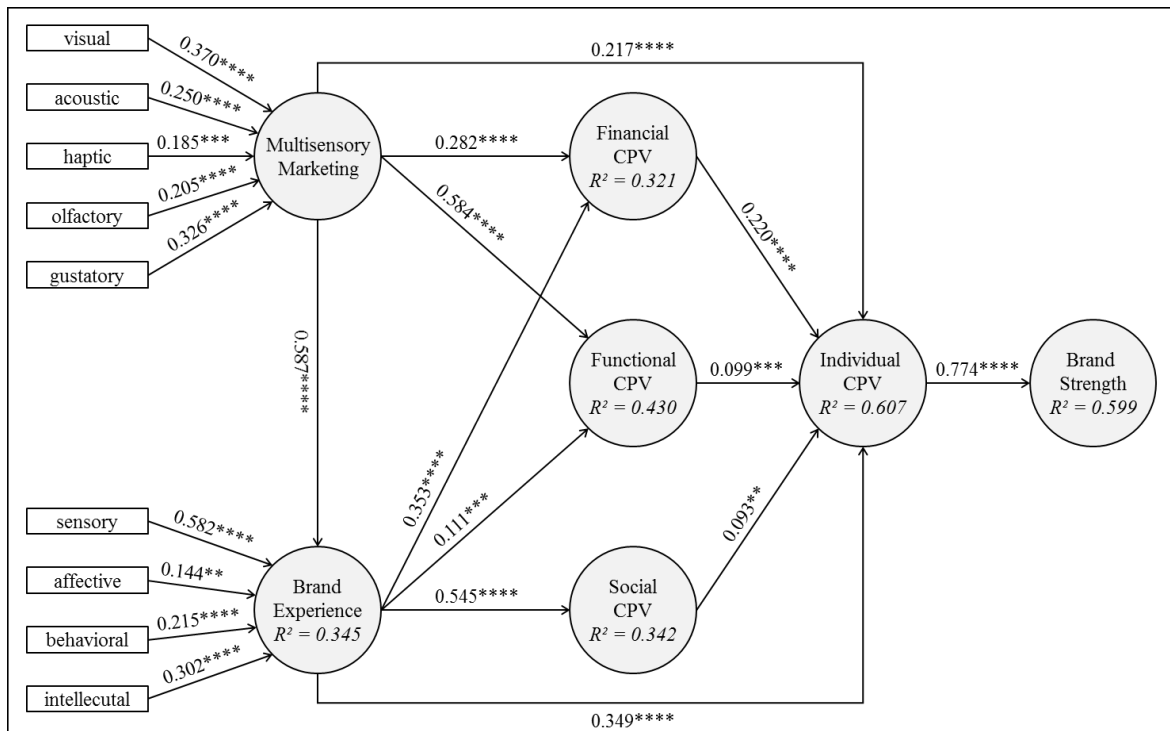
## FIGURES AND TABLES

### Figure 1: Conceptual Model



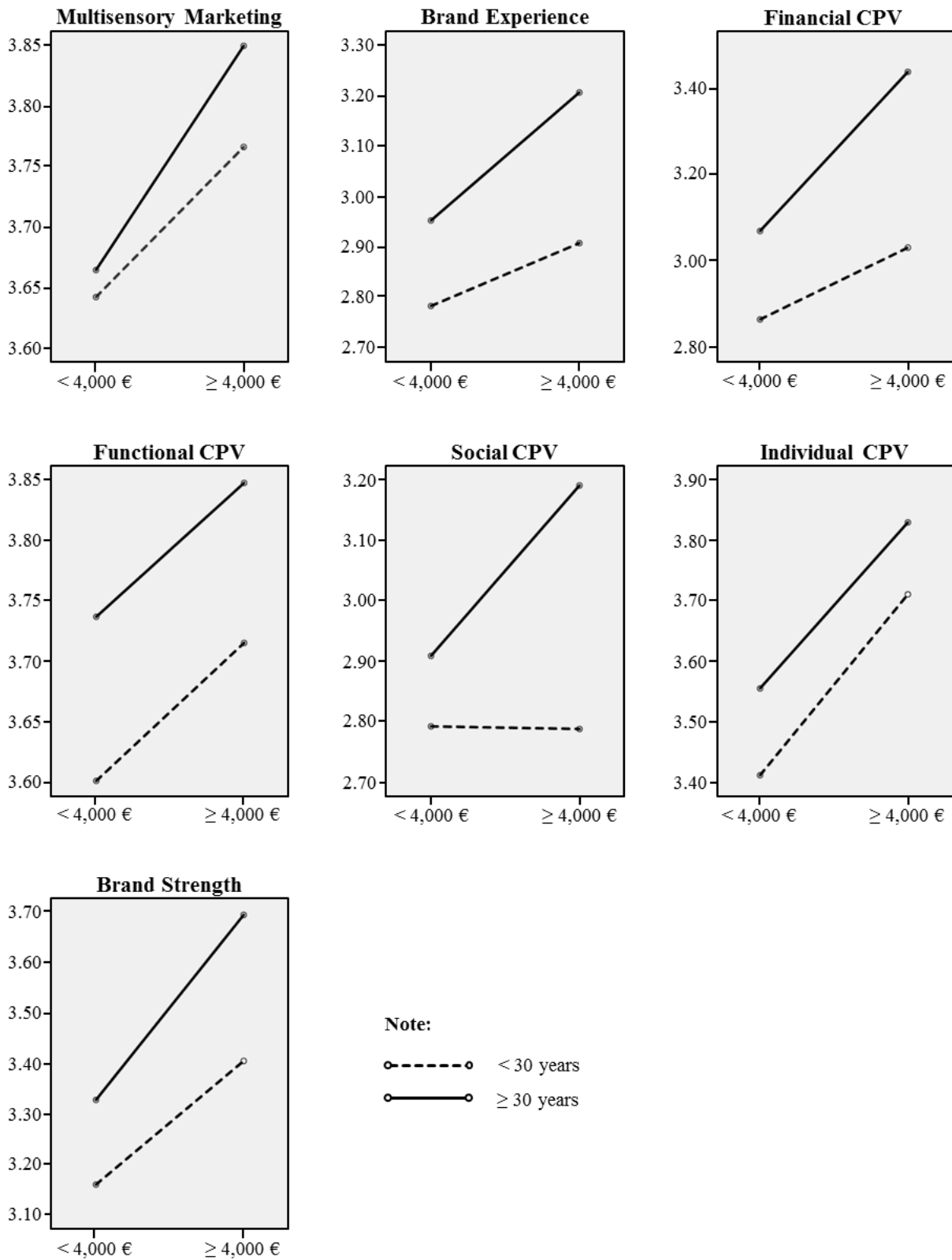
Note: CPV = Customer Perceived Value; when not shown, measurement models are reflective.

### Figure 2: Empirical Model



Note: \* indicates significance at the  $p \leq 0.10$  (\*\*  $p \leq 0.05$ ; \*\*\*  $p \leq 0.01$ , \*\*\*\*  $p \leq 0.001$ ) level of confidence (two-tailed).

**Figure 3: Estimated Marginal Means of the Two-Way ANOVA**



**Table 1: Demographic Profile of the Sample**

<b>Variable</b>	<b>Characteristics</b>	<b>n</b>	<b>%</b>
Age	17 – 24 years	265	48.0
	25 – 45 years	177	32.1
	46 – 71 years	110	19.9
Gender	female	281	50.9
	male	267	48.4
	no answer	4	0.7
Marital status	single	387	70.1
	married	142	25.7
	divorced	22	4.0
	widowed	1	0.2
Education	high school diploma	345	62.5
	university degree	207	37.5
Occupation	trainee	23	4.2
	student	260	47.1
	full time	207	37.5
	part time	38	6.9
	house wife/ house husband	13	2.4
	pensioner	7	1.3
	seeking work	4	0.7
Monthly net income	very low income (< 1000 €)	102	18.5
	low income (1000 – 2000 €)	79	14.3
	middle income (2000 – 3000 €)	83	15.0
	high income (3000 – 4000 €)	84	15.2
	very high income (> 4000 €)	119	21.6
	no answer	85	15.4
<b>Total sample size</b>		<b>552</b>	<b>100.0</b>

**Table 2: Items of the Formative Measurement Models**

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***Multisensory Marketing***

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Visual

- ‘The appearance of luxury hotels is very attractive.’
- ‘Luxury hotels are very nice to look at.’
- ‘Luxury hotels have an appealing style.’
- ‘Luxury hotels are a feast for the eyes.’
- ‘Luxury hotels are a real eye-catcher.’
- ‘Luxury hotels have a premium design.’

---

Acoustic

- ‘The music in luxury hotels is very nice to listen to.’
- ‘The sound scape in luxury hotels is very pleasant’
- ‘The sounds in luxury hotels are wonderful.’
- ‘In luxury hotels very appealing tones can be perceived.’

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Haptic

- ‘The materials in luxury hotels feel absolutely good.’
- ‘The spa area in luxury hotels is very cozy.’
- ‘In luxury hotels the warmth of light feels very pleasant on the skin.’
- ‘The furnishings in luxury hotels are very nice to touch.’
- ‘Luxury hotels offer a cushy comfort.’

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Olfactory

- ‘In luxury hotels it smells very nice.’
- ‘The scent in luxury hotels is very pleasant.’
- ‘The fragrance in luxury hotels is very appealing.’
- ‘The odor in luxury hotels is delightful.’
- ‘The aroma in luxury hotels is very enchanting.’

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Gustatory

- ‘The meals in luxury hotels are a real culinary delight.’
- ‘The meals in luxury hotels are a real pleasure.’
- ‘The food in luxury hotels is very delicious.’
- ‘The beverages in luxury hotels are very delicate.’
- ‘The food in luxury hotels is very tasty.’
- ‘My mouth is watering by looking at the menu in luxury hotels.’
- ‘Luxury hotels provide a culinary highlight.’

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***Brand Experience***

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Sensory

- ‘Luxury hotels make a strong impression on my senses.’
- ‘Luxury hotels are interesting in a sensory way.’
- ‘Luxury hotels appeal to my senses.’

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Affective

- ‘Luxury hotels induce feelings and sentiments.’
- ‘Luxury hotels are emotional.’
- ‘I have strong emotions for luxury hotels.’

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Behavioral

- ‘I engage in physical actions and behaviors when I stay at luxury hotels.’
- ‘Luxury hotels result in bodily experiences.’
- ‘Luxury hotels are action oriented.’

---

Intellectual

- ‘In luxury hotels, I engage in a lot of thinking.’
- ‘Luxury hotels make me think.’
- ‘Luxury hotels stimulate my curiosity.’

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**Table 3: Evaluation of the Formative Measurement Models**

	<b>Weights</b>	<b>t value</b>	<b>VIF</b>	<b>r</b>
<b><i>Multisensory Marketing</i></b>				
Visual	0.370	6.021	1.555	0.677****
Acoustic	0.250	4.747	1.586	0.664****
Haptic	0.185	2.635	1.829	0.618****
Olfactory	0.205	3.385	1.613	0.792****
Gustatory	0.326	5.041	1.502	0.757****
<b><i>Brand Experience</i></b>				
Sensory	0.582	11.166	1.778	0.557****
Affective	0.144	2.377	1.908	0.380****
Behavioral	0.215	3.982	1.423	0.345****
Intellectual	0.302	6.453	1.423	0.494****

Note: VIF = variance inflation factor; r = Pearson correlation (two-tailed) with the respective global measures; \* indicates significance at the  $p \leq 0.10$  (\*\*  $p \leq 0.05$ ; \*\*\*  $p \leq 0.01$ , \*\*\*\*  $p \leq 0.001$ ) level of confidence (two-tailed).

**Table 4: Items of the Reflective Measurement Models**

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***Customer Perceived Value***

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Financial

- ‘Luxury hotels are reasonably priced.’
- ‘Luxury hotels offer good value for money.’
- ‘Luxury hotels provide good vacations for the price.’
- ‘Luxury hotels are worth the economic investment.’
- ‘Luxury hotels are absolutely worth their price.’

---

Functional

- ‘Luxury hotels are excellent.’
- ‘Luxury hotels have no poor workmanship.’
- ‘Luxury hotels are of best quality.’
- ‘Luxury hotels have consistent quality.’
- ‘Luxury hotels perform consistently.’

---

Social

- ‘Luxury hotels improve the way I am perceived.’
- ‘Luxury hotels are a symbol for social status.’
- ‘Luxury hotels help me to feel acceptable.’
- ‘Luxury hotels give social approval.’
- ‘Luxury hotels represent the current lifestyle.’

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Individual

- ‘I enjoy luxury hotels.’
- ‘Luxury hotels arouse positive feelings.’
- ‘Luxury hotels give me pleasure.’
- ‘Luxury hotels are very attractive.’
- ‘Luxury hotels evoke positive emotions.’
- ‘I love luxury hotels.’
- ‘Luxury hotels entertain me.’
- ‘Luxury hotels make me feel good.’

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***Brand Strength***

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- ‘Luxury hotels make me happy.’
- ‘I find luxury hotels attractive.’
- ‘I accept luxury hotels.’
- ‘My attitude towards luxury hotels is positive.’
- ‘To me, luxury hotels are unique.’
- ‘I think luxury hotels are very valuable.’
- ‘I intend to book luxury hotels in the future.’
- ‘It is very likely that I will recommend luxury hotels to my friends.’

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**Table 5: Evaluation of the Reflective Measurement Models**

	Loadings	AVE	$\alpha$	CR	FLC (AVE > r <sup>2</sup> )
Financial CPV	0.797 – 0.842	0.674	0.879	0.912	0.674 > 0.382
Functional CPV	0.673 – 0.832	0.603	0.835	0.883	0.603 > 0.422
Social CPV	0.681 – 0.833	0.605	0.835	0.884	0.605 > 0.339
Individual CPV	0.745 – 0.861	0.651	0.923	0.937	0.651 > 0.599
Brand Strength	0.848 – 0.898	0.775	0.855	0.912	0.775 > 0.599

Note: AVE = average variance extracted;  $\alpha$  = Cronbach's alpha; CR = composite reliability; FLC = Fornell-Larcker-criterion; r<sup>2</sup> = highest latent variable correlation squared.

**Table 6: Evaluation of the Structural Model**

	R <sup>2</sup>	Q <sup>2</sup>
Brand Experience	0.345	–
Functional CPV	0.430	0.252
Financial CPV	0.321	0.213
Social CPV	0.342	0.202
Individual CPV	0.607	0.390
Brand Strength	0.599	0.458

**Table 7: Evaluation of the Structural Relations**

	Original Sample	Sample Mean	SD	SE	t-value
H1: MM → BE	0.587	0.591	0.037	0.037	16.073
H2a: MM → Financial CPV	0.282	0.283	0.046	0.046	6.120
H2b: MM → Functional CPV	0.584	0.584	0.041	0.041	14.140
H2c: MM → Social CPV	0.065	0.070	0.042	0.042	1.537
H2d: MM → Individual CPV	0.217	0.219	0.052	0.052	4.206
H3a: BE → Financial CPV	0.353	0.354	0.043	0.043	8.214
H3b: BE → Functional CPV	0.111	0.111	0.042	0.042	2.627
H3c: BE → Social CPV	0.545	0.545	0.041	0.041	13.182
H3d: BE → Individual CPV	0.349	0.347	0.049	0.049	7.130
H4a: Financial CPV → Individual CPV	0.220	0.220	0.038	0.038	5.788
H4b: Functional CPV → Individual CPV	0.099	0.101	0.036	0.036	2.775
H4c: Social CPV → Individual CPV	0.093	0.090	0.038	0.038	2.483
H5: Individual CPV → BS	0.774	0.774	0.023	0.023	33.838

Note: SD = standard deviation; SE = standard error; MM = Multisensory Marketing; BE = Brand Experience; CPV = Customer Perceived Value; BS = Brand Strength.

**Table 8: Results of the Two-Way ANOVA**

<b>Factor</b>	<b>Source of Variation</b>	<b>F</b>	<b>p</b>	<b><math>\eta^2</math></b>
Multisensory Marketing	I	7.529	0.006	0.016***
	A	0.883	0.348	0.002
	I $\times$ A	0.295	0.587	0.001
Brand Experience	I	5.854	0.016	0.012**
	A	8.957	0.003	0.019***
	I $\times$ A	0.681	0.410	0.001
Financial CPV	I	8.894	0.003	0.019***
	A	11.634	0.001	0.025***
	I $\times$ A	1.270	0.260	0.003
Functional CPV	I	2.342	0.127	0.005
	A	3.328	0.069	0.007*
	I $\times$ A	0.001	0.982	0.000
Social CPV	I	1.784	0.182	0.004
	A	6.249	0.013	0.013**
	I $\times$ A	1.897	0.169	0.004
Individual CPV	I	9.578	0.002	0.020***
	A	2.006	0.157	0.004
	I $\times$ A	0.018	0.895	0.000
Brand Strength	I	11.663	0.001	0.025***
	A	6.515	0.011	0.014**
	I $\times$ A	0.462	0.497	0.001

Note: I = net income; A = age;  $\eta^2$  = effect size according to Rao and Monroe (1988);

\* indicates significance at the  $p \leq 0.10$  (\*\*  $p \leq 0.05$ ; \*\*\*  $p \leq 0.01$ , \*\*\*\*  $p \leq 0.001$ ) level of confidence (two-tailed).

**Table 9: Means and Standard Deviations**

			Multisensory Marketing		Brand Experience		Financial CPV		Functional CPV	
<b>I</b>	<b>A</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Mean</b>	<b>SD</b>	<b>Mean</b>	<b>SD</b>	<b>Mean</b>	<b>SD</b>
<b>&lt; 4k</b>	<b>&lt; 30</b>	263	3.641	0.508	2.781	0.694	2.863	0.765	3.601	0.665
	<b>≥ 30</b>	85	3.664	0.469	2.951	0.736	3.068	0.892	3.737	0.651
<b>≥ 4k</b>	<b>&lt; 30</b>	47	3.765	0.416	2.906	0.696	3.030	0.731	3.715	0.534
	<b>≥ 30</b>	72	3.849	0.562	3.205	0.654	3.437	0.832	3.847	0.676
<b>&lt; 4k</b>		348	3.647	0.498	2.823	0.707	2.913	0.801	3.634	0.663
<b>≥ 4k</b>		119	3.816	0.509	3.087	0.684	3.276	0.815	3.795	0.625
	<b>&lt; 30</b>	310	3.660	0.496	2.800	0.695	2.889	0.761	3.618	0.647
	<b>≥ 30</b>	157	3.749	0.520	3.068	0.709	3.237	0.882	3.787	0.663

			Social CPV		Individual CPV		Brand Strength	
<b>I</b>	<b>A</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Mean</b>	<b>SD</b>	<b>Mean</b>	<b>SD</b>
<b>&lt; 4k</b>	<b>&lt; 30</b>	263	2.792	0.914	3.411	0.808	3.159	0.785
	<b>≥ 30</b>	85	2.908	0.996	3.554	0.884	3.327	0.818
<b>≥ 4k</b>	<b>&lt; 30</b>	47	2.787	0.931	3.710	0.855	3.404	0.875
	<b>≥ 30</b>	72	3.190	0.860	3.829	0.786	3.694	0.763
<b>&lt; 4k</b>		348	2.820	0.934	3.446	0.828	3.200	0.796
<b>≥ 4k</b>		119	3.031	0.907	3.782	0.813	3.580	0.818
	<b>&lt; 30</b>	310	2.791	0.915	3.456	0.821	3.196	0.803
	<b>≥ 30</b>	157	3.038	0.944	3.680	0.849	3.495	0.812

Note: I = net income; A = age; SD = standard deviation; N = group size.

**P4:**

**Effects of consumer sensory perception on brand performance**

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## **Effects of consumer sensory perception on brand performance**

### **Abstract**

**Purpose** – Sensory perception is an important factor to understand and effectively appeal to consumers. As consumers process information consciously and subconsciously, both perception levels (explicit and implicit) are essential to investigate. This paper analyzes the effects of explicit and implicit sensory perception on brand experience and brand-related performance indicators and then investigates the correlations between the senses and experience dimensions.

**Design/methodology/approach** – The authors conducted a field experiment in a coffee house. For data collection, the authors used a questionnaire for explicit measures and a response latency measurement for implicit measures. For data analysis, structural equation modeling and a correlation analysis were conducted.

**Findings** – The results reveal positive relationships between explicit and implicit sensory perception, brand experience, and brand performance in the context of gastronomy. Furthermore, implicit perception acts through explicit perception, and brand experience plays a major role as a mediator between sensory perception and consumer responses. Moreover, visual and haptic perception reveal the highest weights in the structural model and the strongest correlations with the experience dimensions.

**Originality/value** – This paper contributes to consumer research by providing empirical evidence for the importance of both the explicit and implicit sensory perception to effectively

appeal to consumers. The results give valuable insights on the effectiveness of sensory marketing in generating memorable brand experiences and positive brand performance. Furthermore, the findings provide new knowledge on which senses (explicit and implicit) are related to different types of experiences.

**Keywords** Sensory perception, Consumer perception, Consumer behavior, Brand performance, Brand experience, Gastronomy

**Paper type** Research paper

## Introduction

Given the continuous homogenization of products and services, it is critical for companies to differentiate themselves from competitors. Especially in the service industry, marketing researchers and practitioners have a significant interest in effectively managing service encounters to maximize the consumers' satisfaction and loyalty (Morrison and Crane, 2007). While brand management has traditionally focused on physical and functional aspects, consumers now wish for brands that can provide them with unique experiences (Brakus *et al.*, 2014; Mascarenhas *et al.*, 2006). In this context, sensory marketing is increasingly gaining importance as a means to better appeal to the consumer. The service industry and especially gastronomy have a high potential to apply a holistic communication concept that takes all five senses (sight, hearing, touch, smell, and taste) into account (Hui and Bateson, 1991; Brakus *et al.*, 2009). Through a coherent sensory marketing approach, gastronomy has the opportunity to create an overall experience that leads to positive consumer perception and favorable consumer behaviors (Wiedmann *et al.*, 2013; Turley and Milliman, 2000; Zeithaml, 1988). However, to manage sensory marketing effectively, it is essential to consider that sensory stimuli may be processed consciously and subconsciously (Friese *et al.*, 2006). According to well-established literature on cognitive psychology (e.g., Kahneman, 2003; Neys, 2006; Sloman, 2002; Stanovich and West, 2002), the consumer processes information by two different systems. The implicit system usually processes subconscious stimuli and works automatically and effortlessly, whereas the explicit system generally captures conscious stimuli and operates controlled and deliberately. Both cognitive systems form the consumer's decision-making process. Thus, the consideration of only one system is not enough to fully understand the consumer. Therefore, the creation of a comprehensive multisensory marketing concept requires the combination of both the implicit and explicit systems.

Although there is an increasing interest in assessing consumers' implicit and explicit sensory perception, there is still a lack of empirical research. Prior research has already acknowledged the importance of both perception levels (e.g., Kahneman, 2003; Sloman, 2002); however, it has treated the relationships between sensory marketing and brand experience by still focusing on a conceptual level (e.g., Hultén, 2011; Joy and Sherry, 2003; Walter *et al.*, 2010). Hence, there is a knowledge gap with regard to the causal relationships between implicit and explicit sensory perception, brand experience, and brand-related performance indicators (e.g., brand image, brand satisfaction, brand loyalty, price premium, and buying intention). This paper presents a structural equation modeling analysis (for implicit and explicit sensory perception, brand experience, and brand-related performance indicators) and a correlation analysis (for the five sensory perception dimensions and the four brand experience dimensions) for the given context of gastronomy. In this way, the authors provide three notable, novel contributions to the existing literature. First, the impact of implicit sensory perception on explicit sensory perception is empirically confirmed. Second, the effects of implicit and explicit sensory perception on brand experience are determined. Third, information on how the five senses (i.e., visual, acoustic, haptic, olfactory, and gustatory perception) relate to the four brand experience dimensions (i.e., sensory, affective, behavioral, and intellectual) are given. The results may provide a better understanding for brand managers (particularly in the context of gastronomy) about the effectiveness of sensory marketing communications in creating a memorable brand experience that further leads to positive brand perception and consumer behavior. Additionally, it emphasizes the importance of combining both implicit and explicit sensory stimuli to better appeal to consumers. The findings of the correlation analysis provide useful insights regarding which senses are related to different types of experiences, which marketing managers may use for the creation of such brand experiences.



Regarding the structure of the paper, first, the conceptual model and related hypotheses are presented based on existing research. Second, the methodology and results of the empirical study that includes the partial least squares structural equation modeling and a correlation analysis are described. Finally, the paper provides a discussion of the results, managerial implications and conclusions leading to further research steps.

### **Conceptual model and the development of hypotheses**

The basic framework is displayed in Figure 1. In the following, the constructs and relationships of explicit and implicit sensory perception, brand experience and brand-related performance indicators are explained. The basic driver of the conceptual model is sensory perception. Sensory perception is defined as the consumer's evaluation of an object (e.g., product or brand) that determines the degree of appeal of the object to the human senses (i.e., visual, acoustic, haptic, olfactory, and gustatory). Accordingly, a high evaluation represents a positive sensory perception, whereas a low evaluation indicates a negative sensory perception. Based on the common two-system theory of cognitive psychology (e.g., Kahneman, 2003; Neys, 2006; Sloman, 2002; Stanovich and West, 2002), the consumers' evaluation results from cognitive information processing that can be either subconscious (implicit) or conscious (explicit). In the first case, judgment is usually rendered fast, automatic and effortless, and in the latter case, it is slow, deliberate and effortful (Kahneman, 2003; Sloman, 2002). In addition, the explicit system has a very limited capacity, while the capabilities of the implicit system are nearly unrestricted. Thus, at a given moment, people can consciously direct their attention at selected information only (Smith and DeCoster, 2000). Nevertheless, the consumer is surrounded by all kinds of stimuli that he or she is not actually aware of but that the subconscious mind still gathers and stores. However, even if the information is not consciously present to the consumer, it can absolutely influence his or her

decision-making processes (Friese *et al.*, 2006). The two different types of memory content should not be regarded separately. The psychology literature widely addresses the relationship between the two systems (e.g., Barrett *et al.*, 2004; Evans, 2003; Kahneman, 2011). For efficiency reasons, the explicit system often adopts the intuitive suggestions of the implicit system (Kahneman, 2011) to compensate for missing information or to justify the spontaneous suggestion. Consequently, the literature stresses a positive relationship that is directed from the implicit system to the explicit system. Thus, with regard to valence, positive memory content on an implicit level can lead to similar positive perceptions on an explicit level. Conversely, negative implicit memory content may lead to negative explicit perceptions. Hence, we hypothesize the following.

*H1: Implicit sensory perception has a positive effect on explicit sensory perception.*

Sensory stimuli, whether perceived subconsciously or consciously, play a major role in establishing an outstanding brand experience (Hirschman, 1984; Hultén, 2011). According to Brakus *et al.* (2009, p. 53), a brand experience represents “subjective, internal consumer responses (sensations, feelings, and cognitions) and behavioral responses evoked by brand-related stimuli that are part of a brand’s design and identity, packaging, communications, and environments”.

Sensory marketing (i.e., marketing that aims to appeal to a consumers’ senses to affect their perception, judgment, and behavior; Krishna, 2012) offers diverse possibilities for creating experiences unique to the consumer. Furthermore, several studies provide evidence for the influence of sensory stimuli on the consumer, such as color and flavor (e.g., Compeau *et al.*, 1998), touch (e.g., Peck and Childers, 2006), background music (e.g., Milliman, 1986), and store scent (e.g., Spangenberg *et al.*, 2006). According to that, in the context of gastronomy, companies can design their stores and develop their products in a way that strongly appeals to customers’ senses. For example, they can place especially comfortable

furnishings, use a soothing color design and play arousing background music to evoke positive emotions and establish an exceptional atmosphere. In addition, they can emit appetizing scents and create new combinations of ingredients to intensify the customers' taste experience. Furthermore, these individual stimuli will merge into an overall experience (Hultén, 2011; Lindstrom, 2005). To create a strong holistic experience, companies have to thus apply a coherent concept of sensory marketing, meaning that the sensory stimuli reinforce each other and consequently transmit a consistent brand promise (Guzman and Iglesias, 2012). According to the theory of superadditive effects (Lwin *et al.*, 2010), the quality of the experience is positively related to the number of senses congruently addressed. Therefore, the more and the better the senses are appealed to (i.e., the higher the sensory perception), the better the perceived brand experience. Overall, the following is proposed:

*H2: Implicit sensory perception has a positive effect on brand experience.*

*H3: Explicit sensory perception has a positive effect on brand experience.*

In accordance with Pine and Gilmore (1999), brand experiences are highly subjective, vary in intensity and valence, and encompass the customers at different levels. Therefore, the authors follow Brakus *et al.* (2009) and differentiate brand experience along four dimensions: sensory, affective, behavioral, and intellectual. The affective dimension refers to customers' moods or feelings, such as pleasure and excitement, while the cognitive component comprises mental processes (e.g., stimulating consumers' creativity or engaging them in deep thinking). The behavioral dimension reflects individual actions or lifestyles. The sensory component appeals to the five human senses, which can further arouse emotional responses. According to existing research in the field of experiential marketing, the experiences offered by gastronomy may create an emotional connection between the customer and the brand (Arora, 2012; Morrison and Crane, 2007; Xie *et al.*, 2017). By providing high levels of emotional intensity, customers feel a higher level of satisfaction and are more likely to return

to the service brand (Brakus *et al.*, 2009; Holbrook, 1999; Nysveen *et al.*, 2013; Triantafyllidou and Siomkos, 2014). Therefore, it is assumed that the experiences stored in consumers' long-term memory may affect consumer perception (i.e., brand image and brand satisfaction) and consumer behavior (i.e., brand loyalty, willingness to pay a higher price and actual buying intention). Thus,

*H4: Brand experience has a positive effect on (a) brand image, (b) brand satisfaction, (c) brand loyalty, (d) price premium, and (e) buying intention.*

Moreover, in the marketing literature, it has been shown that brand image and brand satisfaction are key performance indicators in brand management. By influencing consumers' expectations, perceived qualities and attitude toward the brand, brand image has been proven in existing marketing research to have a positive impact on brand satisfaction, brand loyalty, price premium, and buying attention (e.g., Bloemer and De Ruyter, 1998; Keller, 1993; Patterson *et al.*, 1996). Furthermore, it is also assumed that higher satisfaction leads to higher loyalty, willingness to pay a price premium, and likelihood of buying a brand's products or services (Rauyruen and Miller, 2007; Selnes, 1993; Tse and Wilton, 1988). Empirical studies have also revealed that consumers who show more trustworthiness and faithfulness toward a brand are more likely to pay a price premium and have a higher intention to buy products or services from the brand in the future (Chaudhuri and Holbrook, 2001). Consequently, the authors suggest the following:

*H5: Brand image has a positive effect on (a) brand satisfaction, (b) brand loyalty, (c) price premium, and (d) buying intention.*

*H6: Brand satisfaction has a positive effect on (a) brand loyalty, (b) price premium, and (c) buying intention.*

*H7: Brand loyalty has a positive effect on (a) price premium and (b) buying intention.*

*H8: Price premium has a positive effect on buying intention.*

Insert Figure 1 about here.

## **Methodology**

### *Measurement*

The proposed model contains two formative and six reflective constructs (see Figure 1). For measuring the formative constructs (i.e., implicit and explicit sensory perception), the sensory perception items (SPI) developed by Haase and Wiedmann (2017) are applied (see Table 1).

Insert Table 1 about here.

The twenty items were used for the measurement of both the implicit and explicit sensory perception to assess the two factors in a consistent manner and make them comparable. However, for a distinct measurement of the two perception levels, the authors applied two different methods that are specifically suitable for the respective case. For explicit (deliberate and controlled) sensory perception, the items were integrated in a questionnaire. The subjects were asked if they associated the coffee house with the following attributes (items), which they could reply to on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). For implicit (spontaneous and automatic) sensory perception, the items were implemented in a response latency measurement that was soundly developed and validated by Haase and Wiedmann (2017). The methodology relies on well-established implicit association tests, such as the implicit association test by Greenwald *et al.* (1998) and the category-item association test by Fazio (1990). The response latency measurement was completed on a computer. The subjects were asked to intuitively decide whether the following attributes (items) fit the coffee house or not. Furthermore, it was emphasized that they should respond as quickly as possible without actually thinking about it. In case of agreement, they should press “E” for “yes”, and in case of disagreement, they should press “I” for “no”. The respective reminder labels were shown throughout the assignment task: “Fits?” at the top

edge, “yes” at the bottom left corner and “no” at the bottom right corner of the screen. At the center, the brand logo of the coffee house was illustrated. Underneath, the sensory perception items appeared one after another and were presented in a white font color against a black background. Figure 2 shows the screen in an exemplary way.

Insert Figure 2 about here.

In line with the approach of Greenwald *et al.* (1998), for every item, a final score was computed based on the response latency and the valence of sensory perception (i.e., “E” for agreement and “I” for disagreement). To ensure that answers were actually intuitive and not entered by mistake, only response latencies in the interval of 300 to 3000 ms were considered. The valid response times were rescaled so that they took values in the interval of 0 to 1, which is from the weakest association possible at a response time of 3000 to the strongest association possible at a response time of 300. Then, the signs of the rescaled response times were adapted according to the valence (positive for “E” and negative for “I”). Consequently, the final scores ranged from -1 to 1. Furthermore, the final scores for both the implicit and explicit sensory perception were z-transformed to reduce method variance (Bluemke and Friese, 2008) and to make the two factors comparable.

Table 2 shows the items of the reflective measurement models. With regard to brand experience, the original scale of Brakus *et al.* (2009) consisting of four dimensions (i.e., affective, behavioral, intellectual, and sensory) is adapted. Measuring consumer perception (i.e., brand image and brand satisfaction) and consumer behavior (i.e., brand loyalty, price premium, and buying intention) relies on the item set developed by Wiedmann *et al.* (2011). All items are specified to the gastronomy context and are rated on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). The variables were also z-transformed for further analyses.

Insert Table 2 about here.

### *Data collection and sample*

For the evaluation of the proposed model, a field experiment in a well-established coffee house serving gastronomic specialties (e.g., homemade chocolates) was conducted in January 2016. The recruitment of respondents was organized by marketing students in exchange for course credit. For the purpose of the study, a representative sample primarily consisting of students was the goal to obtain a balanced set of data with regard to levels of age, education and other demographic characteristics (Agrawal *et al.*, 2001; Dawar and Parker, 1994). Therefore, the marketing students had to contact potential respondents by making use of their social network and invite them to participate in the field experiment. One special instruction for the students was the equal distribution of the sexes.

The main purpose was to investigate the sensory perception of the coffee house, which meant how well the individual senses of the customers were addressed. With regard to the setting, a gallery that provides a view down on the seating area and the counter display of the café was closed for the study to avoid any disruption during data collection. To examine the sensory perception of the coffee house, participants were first asked to observe the coffee house, which included taking in the whole atmosphere, listening to the ambient sound and feeling the furniture. In detail, sensory stimuli were present in the form of a cozy and tradition-rich interior design including particular wood paneling, Dutch tiles, chandeliers and fireplaces (visual). Furthermore, soft and classic background music was played (acoustic). High-quality wood and soft-padded cushions were used for chairs and tables (haptic) and a discreet coffee smell filled the café (olfactory). Second, subjects were invited to pick a sweet-tasting chocolate truffle from a separate table and to taste it (gustatory). After absorbing the different sensory stimuli, the participants took a seat in a neutral and silent corner and were asked to complete the questionnaire. The first part included questions about the respondents'

familiarity with the brand. Then, the implicit sensory perception was captured by the response latency measurement. After that, the participants proceeded with the questionnaire, which assessed the explicit sensory perception of the coffee house, the evaluation of the brand experience and brand-related performance indicators. Finally, the last section presented questions regarding demographics.

In total, 138 subjects participated in the study. Table 3 presents the corresponding characteristics of the sample. The participants' ages ranged from 18 to 67 years, with an average age of 25.7 years. With regard to gender, the distribution was almost equal (48.6% women and 51.4% men). Furthermore, most of the participants were students (80.4%), had a senior high school diploma (61.6%), and a monthly income below 1,000 € (44.2%).

Insert Table 3 about here.

### *Data analysis*

For the descriptive analysis of the demographic sample profile (i.e., means and frequencies), for some aspects of the evaluation of the measurement models (i.e., Cronbach's alpha, Pearson correlation coefficient, and variance inflation factor), and for the correlation analysis, the analysis software SPSS 24.0 was used. To test the hypotheses, partial least squares structural equation modeling was applied since the conceptual model comprises both formative and reflective indicators. Following a two-step approach, the analysis contains an evaluation of the measurement models (outer models) first and an evaluation of the structural model (inner model) second (Henseler *et al.*, 2009). For this purpose, the authors used the analysis software SmartPLS 2.0 (Ringle *et al.*, 2005), including the partial least squares (PLS) algorithm (path weighting scheme) and a blindfolding and bootstrapping procedure (individual sign changes).



## Findings

### *Structural equation modeling*

*Evaluation of the measurement models.* Following the two-step approach of Henseler *et al.* (2009), first, the measurement models and then the structural model were assessed for quality. With regard to the two formative measurement models (i.e., implicit and explicit sensory perception), Table 4 presents the relevant criteria. Except for gustatory perception, all sensory perception dimensions show outer weights that are higher than 0.1 and are significant, as proposed by Hair *et al.* (2012). Moreover, the maximum variance inflation factor (VIF) is 1.661, which falls far below the critical value of 10. Hence, the data are not biased due to multicollinearity (Diamantopoulos *et al.*, 2008).

Insert Table 4 about here.

With reference to the six reflective measurement models (i.e., brand experience, brand image, brand satisfaction, brand loyalty, price premium, and buying intention), Table 5 presents the results concerning reliability and validity. For all variables, the quality criteria are fulfilled. With a minimum of 0.744, all factor loadings are higher than 0.7, which affirms indicator reliability (Hair *et al.*, 2011). The average variance extracted (AVE) has a minimum amount of 65.9% throughout, thus surpassing the requirement of 50%. Hence, convergent validity is confirmed. Additionally, in each case, the AVE is higher than the highest squared correlation with another latent variable, which satisfies the Fornell-Larcker criterion for discriminant validity (Fornell and Larcker, 1981). Finally, Cronbach's alpha always takes a value above 0.6 with a minimum of 0.678, and composite reliability is above 0.7 with a minimum of 0.861. Therefore, internal consistency reliability is also fulfilled (Bagozzi and Yi, 2012; Churchill, 1979; Peterson, 1994).

Insert Table 5 about here.

Finally, the authors performed a Harman's one-factor test for the explicit measures to ensure that there is no common method bias. The analysis revealed that the questionnaire-based items explain only 30.94% of the single factor's variance, which clearly falls below the limit of 50%. Thus, the results negate that the data are biased due to the source of the measures (Podsakoff and Organ, 1986).

*Evaluation of the structural model.* To assess the quality of the structural model, two prediction-oriented and nonparametric measures are considered. Table 6 presents the results. The coefficient of determination ( $R^2$ ) ranges from 0.358 to 0.660, which indicates a satisfactory goodness of fit (Chin, 1998). Furthermore, the cross-validated redundancy measure ( $Q^2$ ) has a minimum of 0.214 and is positive throughout, thus confirming the model's predictive relevance (Geisser, 1974; Stone, 1974).

Insert Table 6 about here.

In the following, the research hypotheses representing the structural relationships between the latent variables are examined. Table 7 displays the path coefficients and t values that give the strength and significance of the relationships, respectively. In the case of the first hypothesis on the impact of implicit sensory perception on explicit sensory perception, the data analysis reveals a highly significant and very strong positive effect ( $b = 0.804$ ,  $p \leq 0.001$ ). Hence, hypothesis H1 has full empirical support. The next two hypotheses address sensory perception as a driver for brand experience. The results detect that brand experience is directly driven only by the explicit system, but in a highly significant and very strong manner ( $b = 0.539$ ,  $p \leq 0.001$ ). The implicit system shows no direct effect ( $b = 0.073$ ,  $p > 0.1$ ). However, implicit sensorial memory content does not remain ineffective. By contrast, as a result of the two abovementioned highly significant and strong relationships, it affects brand experience via the explicit system; here, a perfect mediation effect is found (Baron and

Kenny, 1986). Hypothesis H2 is thus rejected in its proposed form, and hypothesis H3 is confirmed.

The following five hypotheses test whether this effect is passed on to further brand-related performance indicators. The data analysis affirms a significant and positive effect of brand experience on brand image ( $b = 0.623$ ,  $p \leq 0.001$ ), brand loyalty ( $b = 0.273$ ,  $p \leq 0.001$ ), price premium ( $b = 0.250$ ,  $p \leq 0.01$ ), and buying intention ( $b = 0.104$ ,  $p \leq 0.1$ ). Brand satisfaction is not directly influenced ( $b = 0.090$ ,  $p > 0.1$ ). Hence, hypotheses H4a, H4c, H4d, and H4e find full empirical support, and hypothesis H4b is negated. In addition, the findings reveal further effects between brand-related performance indicators. Brand image has a significant and positive effect on brand satisfaction ( $b = 0.698$ ,  $p \leq 0.001$ ) and brand loyalty ( $b = 0.267$ ,  $p \leq 0.01$ ). By contrast, there is no significant direct effect on the downstream measures of consumer behavior, that is, on price premium ( $b = 0.146$ ,  $p > 0.1$ ) and buying intention ( $b = 0.128$ ,  $p > 0.1$ ). Therefore, hypotheses H5a and H5b are verified, but hypotheses H5c and H5d are rejected. The same is true in the case of brand satisfaction, which also shows a significant and positive effect on brand loyalty ( $b = 0.301$ ,  $p \leq 0.001$ ) but no significant direct effect on price premium ( $b = -0.034$ ,  $p > 0.1$ ) or buying intention ( $b = 0.043$ ,  $p > 0.1$ ). Thus, hypothesis H6a finds empirical support, while hypotheses H6b and H6c are rejected. Brand loyalty does have a highly significant and positive impact on price premium ( $b = 0.432$ ,  $p \leq 0.001$ ) and buying intention ( $b = 0.510$ ,  $p \leq 0.001$ ), which supports hypotheses H7a and H7b. Finally, price premium positively affects buying intention ( $b = 0.146$ ,  $p \leq 0.05$ ), thus confirming hypothesis H8.

The findings provide full empirical support for 12 of the 18 hypotheses. The result is a complex impact model (see Figure 3). In detail, the data analysis states a causal chain of various direct and indirect effects with sensory perception as the basic success driver for brand-related key performance indicators through the establishment of a positive brand

experience. With regard to the relevance of the single senses, except for gustatory perception, all the sensory perception dimensions play a significant role. For implicit sensory perception, haptic perception is the most powerful driver ( $b = 0.488, p \leq 0.001$ ), followed by visual ( $b = 0.412, p \leq 0.001$ ), acoustic ( $b = 0.278, p \leq 0.05$ ), and olfactory perception ( $b = 0.181, p \leq 0.1$ ). Regarding explicit sensory perception, visual perception is the most important driver ( $b = 0.412, p \leq 0.001$ ), followed by haptic ( $b = 0.349, p \leq 0.01$ ), acoustic ( $b = 0.299, p \leq 0.01$ ), and olfactory perception ( $b = 0.246, p \leq 0.05$ ).

Insert Table 7 about here.

Insert Figure 3 about here.

### *Correlation analysis*

To gain deeper insights into the relationship between sensory perception and brand experience, an additional correlation analysis has been conducted. In detail, the correlations between all five sensory perception dimensions (i.e., visual, acoustic, haptic, olfactory, and gustatory) on both an explicit and implicit level and the four brand experience dimensions (i.e., sensory, affective, behavioral, and intellectual) have been investigated (see Table 8). The results show that all 40 correlations are significant at least at  $p \leq 0.1$ , where most are highly significant at  $p \leq 0.001$ . With regard to the sensory brand experience dimension, all correlations are highly significant at  $p \leq 0.001$ . The only exception is implicit acoustic perception, which is still significant but seems to play a minor role in the given case ( $r = 0.204, p \leq 0.05$ ). In contrast, the visual sense appears to play the major role. Across all ten variables, it shows the highest correlation coefficients (explicit:  $r = 0.475$ ; implicit:  $r = 0.425$ ). Referring to the affective dimension, haptics turn out to be especially important. Haptic perception reveals the two strongest correlations across all ten variables (explicit:  $r = 0.366, p \leq 0.001$ ; implicit:  $r = 0.342, p \leq 0.001$ ). Furthermore, the behavioral dimension is

especially related to explicit sensory stimulation. Here, the two strongest correlations are given with explicit visual perception ( $r = 0.306, p \leq 0.001$ ) and explicit gustatory perception ( $r = 0.294, p \leq 0.001$ ). Finally, the intellectual dimension is most strongly related with explicit haptic perception ( $r = 0.437, p \leq 0.001$ ) and explicit visual perception ( $r = 0.364, p \leq 0.001$ ), which are also highly relevant on the implicit level ( $r = 0.334, p \leq 0.001$  and  $r = 0.293, p \leq 0.001$ , respectively).

Insert Table 8 about here.

## **Discussion**

This paper provides new insights on the effects of sensory marketing and the particular relevance of both modes of information processing (i.e., the implicit and explicit sensory perception) in the context of gastronomy by two analyses. First, a structural equation modeling analysis tested the relationships between implicit and explicit sensory perception, brand experience, and brand-related performance indicators. Second, a correlation analysis investigated in more detail the relationship between the dimensions of sensory perception on both an explicit and implicit level and of brand experience.

The structural equation modeling largely confirms the introduced model. It has been shown that implicit and explicit sensory perception explained brand experience to a considerable degree and that sensory perception and brand experience are important drivers for brand-related performance indicators in the given context of gastronomy. In detail, implicit sensory perception shows a highly significant and strong effect on explicit sensory perception. The findings are in line with existing research highlighting the positive relationship between the two systems. As supposed, for sensory perception, the implicit system has high explanatory power in constituting the explicit system, which confirms the significant role when assessing consumer' opinions. Moreover, explicit sensory perception

shows a positive and substantial effect on brand experience. In contrast, implicit sensory perception has an indirect and somewhat smaller effect through explicit sensory perception. Overall, the results indicate that sensory marketing is a strong predictor for brand experience. In particular, for both the implicit and explicit sensory perception, the visual and haptic perception are the most important drivers. Acoustic and olfactory perception also play a significant but less important role. With regard to gustatory perception, for both the implicit and explicit sensory perception, the findings show insignificant weights. Literature on sensory marketing states that taste often depends on the other four senses (e.g., Hultén, 2011; Krishna, 2012; Krishna et al., 2016). Due to given correlations, especially with visual and haptic perception that represent the strongest drivers of sensory perception, the distinct explanatory power of gustatory perception is problematic to separate (Diamantopoulos and Winklhofer, 2001). Thus, the weight of gustatory perception becomes insignificant and flows into the weights of the other four dimensions. Moreover, brand experience shows a positive impact on brand-related performance indicators. As consumer perception (including brand image and brand satisfaction) further influences consumer behavior (including brand loyalty, price premium, and buying intention), partial mediating effects exist. More specifically, the indirect impact of brand experience through brand image, satisfaction, and loyalty on price premium and buying intention is higher than the direct one. Therefore, when consumers have a positive experience with the brand, the overall assessment of the brand becomes more favorable, thus ultimately leading to more positive behavior toward the brand. The results confirm various research approaches with regard to brand equity (e.g., Chaudhuri and Holbrook, 2001). Due to the mediator effect of brand loyalty, the direct paths of brand image and brand satisfaction show no significance with the terminative variables of consumer behavior (i.e., price premium and buying intention). The influence is only significant through the indirect path via brand loyalty.

The correlation analysis shows that all 40 relationships between the five senses (on an explicit and implicit level) and the four brand experience dimensions are significant, with most of them at  $p \leq 0.001$ . With regard to the strength, the coefficients predominantly indicate moderate correlations, as the separate dimensions of both sensory perception and brand experience are combined. Notwithstanding, the results indeed reveal which type of experience is most strongly related to which type of sensory stimulation. For each type of experience, different senses were more or less relevant. First, in accordance with basic literature on sensory marketing (e.g., Hultén, 2011; Lindstrom, 2005), all five senses are empirically confirmed to be highly relevant in forming an overall sensory experience. Only implicit acoustics (although still significant) played a minor role, as the background music was clearly not appealing and outstanding enough to make a crucial difference in the given case. The visual sense (both on an implicit and explicit level) was found to play the major role. This finding goes in line with the sensory marketing literature that states that the visual sense is the dominant sense (e.g., Krishna, 2012; Schifferstein, 2006). For affective experiences, especially haptic stimuli (both on an implicit and explicit level) are highly important. Affective experiences arise from customers' moods or feelings (Brakus et al., 2009). Thus, the comfort factor, coming from items such as convenient furniture made from high-quality wood and soft padded cushions, clearly contributes a large part to the fact that customers feel good and develop positive emotions. With regard to behavioral experiences, visual and gustatory perception (both on an explicit level) are particularly decisive. Consequently, for consumers to get active and to have bodily experiences, the conscious perception of the outstanding visual appearance of the coffee house and the good taste of the products are apparently the most decisive. Finally, for intellectual experiences, haptic and visual appeal play a major role on both an explicit and implicit level. Clearly, what makes the consumers think and stimulate their curiosity is an exceptional atmosphere based on

outstanding visual and haptic stimuli. In the case of the coffee house, this was given especially by the extraordinary interior and furniture (e.g., Dutch tiles, chandeliers, fireplaces, high-quality wooden chairs and soft padded cushions), which clearly differ from standard locations.

### *Managerial implications*

This paper provides marketing managers with valuable insights on the importance of sensory marketing to create unique brand experiences. Because both implicit and explicit sensory perception were found to be highly relevant, marketing managers need to ensure that they perform well on both perception levels. If this performance is neglected and the implicit and/or explicit sensory perception is negatively assessed, it will further negatively affect the brand experience and brand-related performance indicators. Accordingly, marketing managers need to set appealing sensory cues that fit the consumers' preferences and that are consistent across the five senses and across both perception levels. Doing so will constitute a positive sensory perception and hence brand success. To ensure that the planned multisensory marketing concept actually appeals to the target group on both perception levels, marketing managers are advised to conduct market research by engaging the introduced measurement approach. Doing so may essentially enhance the chances of success of the considered sensory stimuli.

With regard to the individual senses that may be addressed, the main focus of marketing practice is still on visual stimuli. However, this study provides empirical evidence for the relevance of an integrated approach by addressing several senses. In the given case of gastronomy, great potential especially lies in the visual and haptic senses. To create visual appeal, gastronomes may pay special attention to exceptional interior design. For example, when managers plan on establishing an atmosphere for people who appreciate a cozy



ambience, the use of warm colors, fireplaces and dimmed light may be beneficial. For haptic appeal, for example, warm temperature, high-quality materials and comfortable furniture may be applied. Depending on the intensity to which the sensory cues are present, the sensory stimulation can be established on an explicit or implicit level. For example, the visual presentation of the food can be on an *étagère* which may positively surprise the customer (explicit) or nicely arranged on a plate which may be less striking (implicit). Furthermore, music can be played loudly in the foreground by a live band (explicit) or discreetly in the background (implicit). Moreover, haptic appeal can be achieved by providing special lounge areas where customers may take off their shoes and make themselves comfortable (explicit) or through convenient furniture with soft-padded cushions where customers can sit (implicit). With regard to olfaction, scented candles can be lighted in front of the customer (explicit) or a decent room-fragrance can be spread (implicit). Finally, the good taste of a certain product can be actively promoted by the service staff (explicit) or perceived incidentally while eating (implicit).

In this way, gastronomy can attract customers by creating extraordinary experiences. For the creation of specific types of experiences (sensory, affective, behavioral, or intellectual), marketing managers may set different foci regarding sensory stimulation. For an overall sensory experience, all senses on both perception levels are highly relevant and shall thus flow into a holistic multisensory concept, with the visual sense being central. To evoke positive consumer emotions, especially haptic stimuli (of both the explicit and implicit form) are relevant. For bodily experiences, gastronomes need to ensure that customers consciously perceive that the products taste good and that the location is visually appealing. Finally, to create mental experiences that stimulate the customers' curiosity, visual and haptic stimuli (of both the explicit and implicit form) are particularly appropriate.

Furthermore, the creation of positive brand experiences leads to a positive relationship between the customer and the brand. Thus, marketing managers can establish customer satisfaction and a positive image of the brand, which eventually will cause consumers to be more loyal, to be more willing to pay a higher price and to buy their products and services.

#### *Limitations and future research*

This study features some limitations that offer potential starting points for future research. The study tested the model in a first step on a limited and relatively homogeneous sample. For this purpose, a sample primarily consisting of students was chosen. Thus, further studies could verify the results for larger and more heterogeneous samples. Moreover, the data are related to the specific context of gastronomy. However, the findings might not unlikely be true for other various application areas of sensory marketing. Hence, future research may analyze the stated relationships for different industries such as fast-moving and slow-moving consumer goods, or even for B2B sectors where branding is increasingly shifting into focus. Furthermore, the data analysis has focused on causal relationships through structural equation modeling. To get an even better understanding of the effects of sensory marketing activities, examining the moderating effects of socio-demographic aspects (such as gender or age) via analyses of variance would be insightful. Finally, by an additional correlation analysis, the study provides the first insights into the relationships between the dimensions of implicit and explicit sensory perception and the dimensions of brand experience. Future studies may focus on this specific issue and investigate in even more detail the relationships between the single dimensions to deepen the knowledge on the application of sensory stimuli to create particular brand experiences. To conclude, sensory perception, especially in both explicit and implicit forms, remains an under-researched construct in the marketing literature that offers several promising opportunities for further research.

## **Conclusion**

This paper provides empirical evidence for the power of multisensory stimulation in the context of gastronomy. This study gives new insights on the causal relationships of explicit and implicit sensory perception on brand experience and further brand-related key performance indicators. The results support 12 of the 18 research hypotheses outlined in the conceptual model, thus indicating a causal chain of positive direct and indirect effects between sensory perception and brand-related performance indicators. Implicit perception always acts through explicit perception. Furthermore, brand experience plays a major role as a mediator between consumers' sensory perceptions and their responses. In addition, this paper provides valuable knowledge on the correlations between the five senses and the four brand experience dimensions. The results may help gastronomes to create effective sensory stimuli and thus to succeed in a competitive market. Additionally, it may also benefit brand managers since the empirically confirmed research model may be adapted to other contexts.

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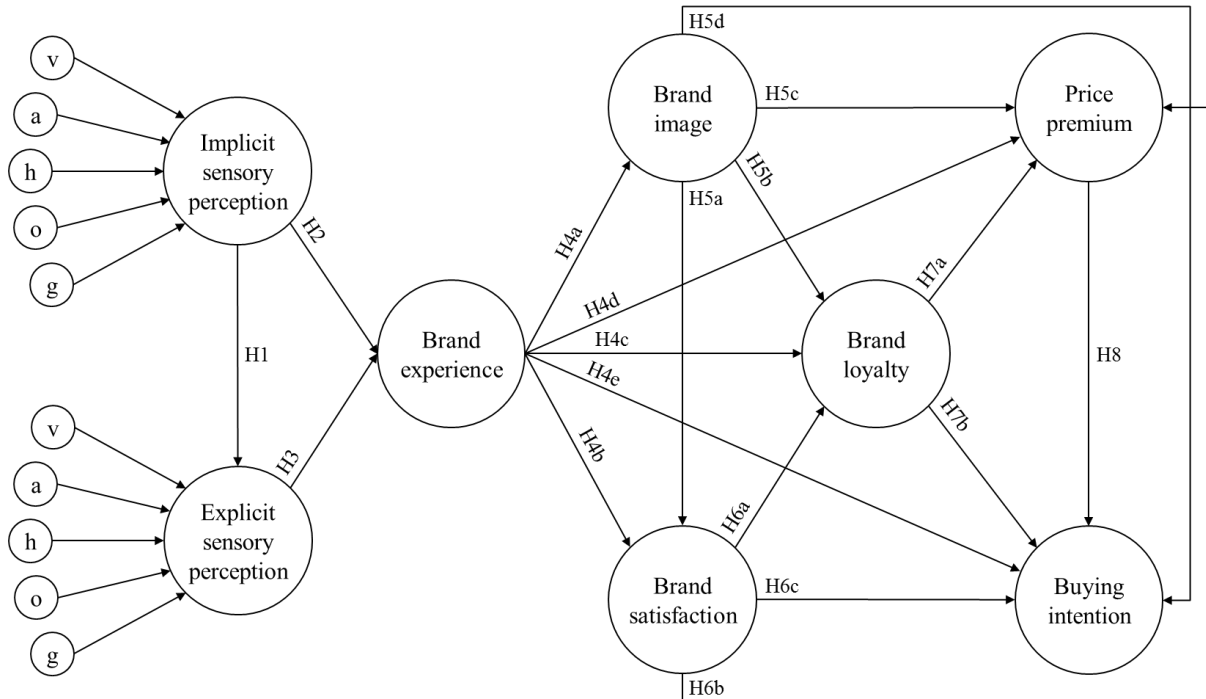
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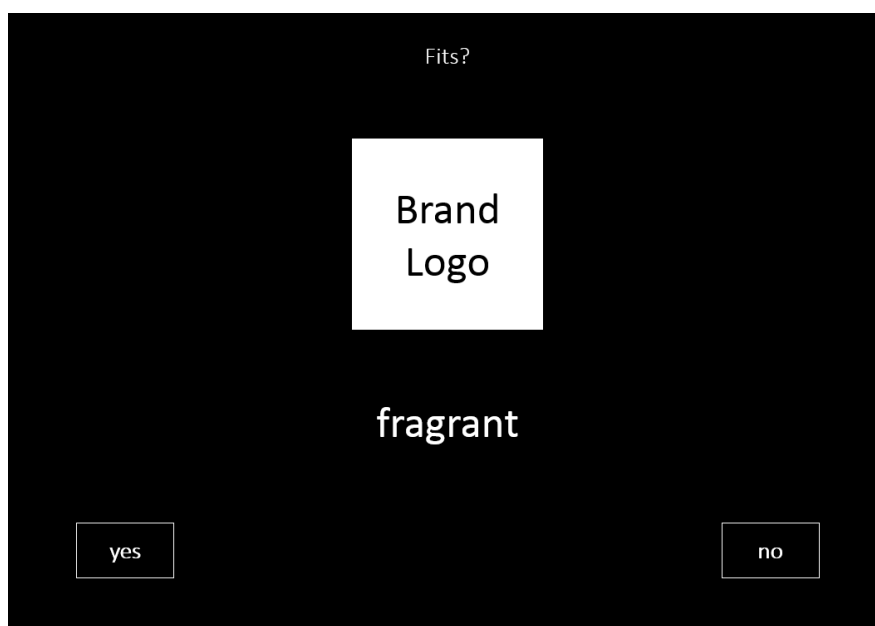
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## Figures and Tables

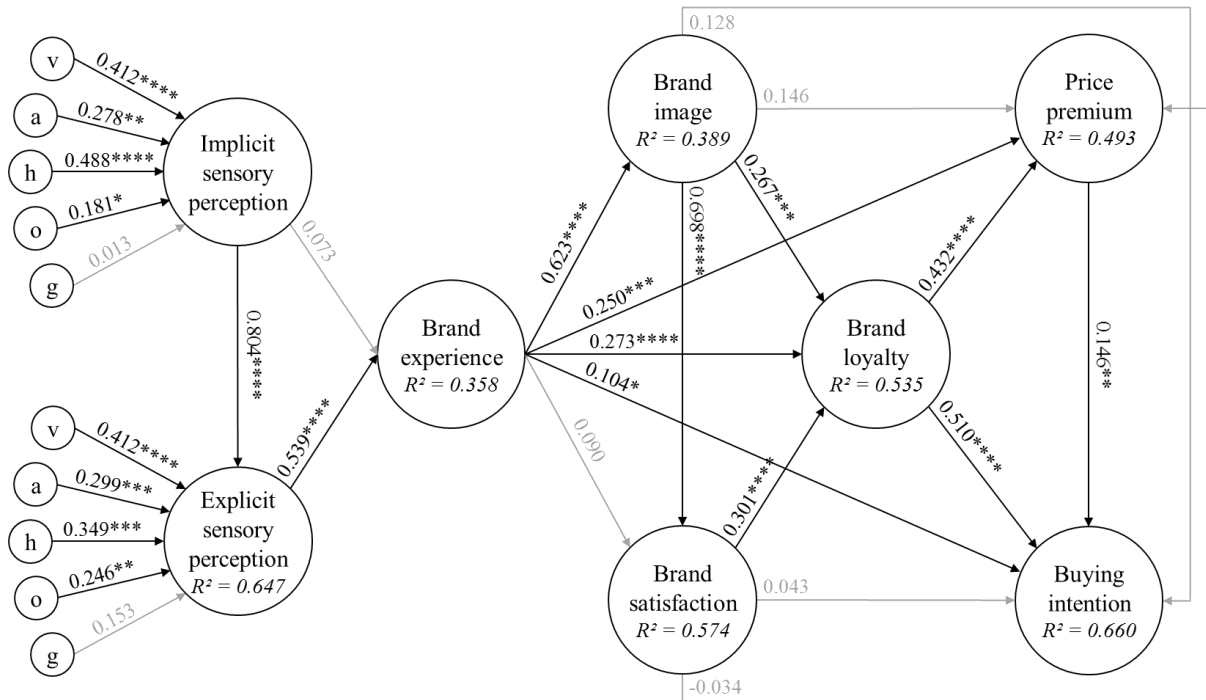
**Figure 1: Conceptual model**



**Figure 2: Response latency measurement**



**Figure 3: Empirical model**



Note: \* indicates significance at the  $p \leq 0.1$  (\*\*  $p \leq 0.05$ ; \*\*\*  $p \leq 0.01$ ; \*\*\*\*  $p \leq 0.001$ ) level of confidence (two-tailed).

**Table 1: Items of the formative measurement models**

<b>Sensory Perception</b>				
Visual	Acoustic	Haptic	Olfactory	Gustatory
attractive	euphonic	comfortable	fragrant	appetizing
beautiful	good-sounding	handy	nice-smelling	flavorful
pretty	melodic	soothing	perfumed	palatable
aesthetic	sonorous	well-shaped	scented	tasty

Note: The items are used for the measurement of both explicit sensory perception (questionnaire) and implicit sensory perception (response latency measurement).

**Table 2: Items of the reflective measurement models**

<b>Brand experience</b>
The coffee house makes a strong impression on my senses.
I find the coffee house interesting in a sensory way.
The coffee house appeals to my senses.
The coffee house induces feelings and sentiments.
I have strong emotions for the coffee house.
The coffee house is emotional.
I engage in physical actions and behaviours when I stay at the coffee house.
The coffee house results in bodily experiences.
The coffee house is action oriented.
I engage in a lot of thinking when I stay at the coffee house.
The coffee house makes me think.
The coffee house stimulates my curiosity.
<b>Brand image</b>
I like the coffee house very much.
The coffee house is really likable.
<b>Brand satisfaction</b>
I am very satisfied with the coffee house.
The coffee house absolutely meets my expectations.
<b>Brand loyalty</b>
I would recommend the coffee house to my friends.
I would regret if the coffee house was not existent.
<b>Price premium</b>
I am willing to pay a higher price for the coffee house than for other coffee houses.
The coffee house is worth a higher price compared to other coffee houses.
<b>Buying intention</b>
I plan to visit the coffee house in the future.
I intend to buy products of the coffee house in the future.

**Table 3: Demographic profile of the sample**

Variable	Characteristics	n	%
Age	18 – 24 years	86	62.3
	25 – 30 years	44	31.9
	> 30 years	8	5.8
Gender	female	67	48.6
	male	71	51.4
Marital status	single	130	94.2
	married	8	5.8
Education	pupil	1	0.7
	junior high school diploma	5	3.6
	senior high school diploma	85	61.6
	university degree	47	34.1
Occupation	scholar	1	0.7
	trainee	3	2.2
	student	111	80.4
	full-time employee	14	10.1
	part-time employee	4	2.9
	housewife/househusband	2	1.5
Income	unemployed	3	2.2
	very low income (< 1000 €)	61	44.2
	low income (1000 – 2000 €)	24	17.4
	middle income (2000 – 3000 €)	18	13.0
	high income (3000 – 4000 €)	12	8.7
	very high income (> 4000 €)	11	8.0
	no answer	12	8.7
<b>Total sample size</b>		<b>138</b>	<b>100.0</b>

**Table 4: Evaluation of the formative measurement models**

	Weights	t value	VIF
<b>Implicit sensory perception</b>			
Visual	0.412	3.654	1.355
Acoustic	0.278	2.521	1.231
Haptic	0.488	3.988	1.597
Olfactory	0.181	1.653	1.410
Gustatory	0.013	0.167	1.635
<b>Explicit sensory perception</b>			
Visual	0.412	3.946	1.444
Acoustic	0.299	3.044	1.207
Haptic	0.349	3.222	1.661
Olfactory	0.246	2.395	1.237
Gustatory	0.153	1.571	1.407

Note: VIF = variance inflation factor.

**Table 5: Evaluation of the reflective measurement models**

	<b>Loadings</b>	<b>AVE</b>	<b><math>\alpha</math></b>	<b><math>\rho_c</math></b>	<b>FLC (AVE &gt; r<sup>2</sup>)</b>
Brand experience	0.744 – 0.851	0.659	0.829	0.885	0.659 > 0.389
Brand image	0.833 – 0.906	0.757	0.684	0.862	0.757 > 0.569
Brand satisfaction	0.895 – 0.917	0.821	0.783	0.902	0.821 > 0.569
Brand loyalty	0.849 – 0.889	0.756	0.678	0.861	0.756 > 0.609
Price premium	0.941 – 0.953	0.897	0.886	0.946	0.897 > 0.430
Buying intention	0.976 – 0.978	0.954	0.952	0.976	0.954 > 0.609

Note: AVE = average variance extracted;  $\alpha$  = Cronbach's alpha;  $\rho_c$  = composite reliability; FLC = Fornell-Larcker-criterion; r<sup>2</sup> = highest latent variable correlation squared.

**Table 6: Evaluation of the structural model**

	<b>R<sup>2</sup></b>	<b>Q<sup>2</sup></b>
Explicit sensory perception	0.647	-
Brand experience	0.358	0.214
Brand image	0.389	0.290
Brand satisfaction	0.574	0.467
Brand loyalty	0.535	0.399
Price premium	0.493	0.435
Buying intention	0.660	0.630



**Table 7: Evaluation of the structural relations**

		Original sample	Sample mean	SD	SE	t value
<b>H1:</b>	Implicit SP → Explicit SP	0.804	0.809	0.040	0.040	19.886
<b>H2:</b>	Implicit SP → BE	0.073	0.118	0.082	0.082	0.890
<b>H3:</b>	Explicit SP → BE	0.539	0.550	0.114	0.114	4.727
<b>H4a:</b>	BE → BI	0.623	0.626	0.052	0.052	12.040
<b>H4b:</b>	BE → BS	0.090	0.099	0.063	0.063	1.419
<b>H4c:</b>	BE → BL	0.273	0.273	0.077	0.077	3.539
<b>H4d:</b>	BE → PP	0.250	0.247	0.078	0.078	3.207
<b>H4e:</b>	BE → BU	0.104	0.109	0.063	0.063	1.648
<b>H5a:</b>	BI → BS	0.698	0.699	0.066	0.066	10.664
<b>H5b:</b>	BI → BL	0.267	0.271	0.093	0.093	2.859
<b>H5c:</b>	BI → PP	0.146	0.162	0.102	0.102	1.437
<b>H5d:</b>	BI → BU	0.128	0.134	0.080	0.080	1.597
<b>H6a:</b>	BS → BL	0.301	0.298	0.087	0.087	3.458
<b>H6b:</b>	BS → PP	-0.034	-0.083	0.063	0.063	0.547
<b>H6c:</b>	BS → BU	0.043	0.066	0.048	0.048	0.892
<b>H7a:</b>	BL → PP	0.432	0.430	0.096	0.096	4.498
<b>H7b:</b>	BL → BU	0.510	0.510	0.088	0.088	5.780
<b>H8:</b>	PP → BU	0.146	0.147	0.072	0.072	2.026

Note: SD = standard deviation; SE = standard error; SP = sensory perception; BE = brand experience; BI = brand image; BS = brand satisfaction; BL = brand loyalty; PP = price premium; BU = buying intention.

**Table 8: Results of the correlation analysis**

	Brand experience			
	Sensory	Affective	Behavioral	Intellectual
<b>Implicit sensory perception</b>				
Visual	0.425****	0.239***	0.232***	0.293****
Acoustic	0.204**	0.272****	0.163*	0.288****
Haptic	0.424****	0.342****	0.287****	0.334****
Olfactory	0.388****	0.189**	0.168**	0.176**
Gustatory	0.377****	0.180**	0.205**	0.254***
<b>Explicit sensory perception</b>				
Visual	0.475****	0.326****	0.306****	0.364****
Acoustic	0.283****	0.287****	0.243***	0.348****
Haptic	0.424****	0.366****	0.269****	0.437****
Olfactory	0.343****	0.253***	0.202**	0.192**
Gustatory	0.406****	0.231***	0.294****	0.269****

Note: \* indicates significance at the  $p \leq 0.1$  (\*\*  $p \leq 0.05$ ; \*\*\*  $p \leq 0.01$ ; \*\*\*\*  $p \leq 0.001$ ) level of confidence (two-tailed).

**P5:**

**Sensory stimuli in print advertisement – Analyzing the effects on selected  
performance indicators**

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## Sensory Stimuli in Print Advertisement – Analyzing the Effects on Selected Performance Indicators

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### ABSTRACT

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#### Keywords:

Sensory perception, Product design, Brand experience, Brand perception, Consumer behavior, Print advertisement

The multisensory marketing approach is often associated with the creation of memorable consumer experiences. In contrast, the broad field of advertisement is increasingly struggling to appeal effectively to the consumer. Thus, the implementation of multisensory aspects in traditional advertisement activities might be promising. In the given context of the print advertisement, the empirical results of this research provide evidence that the application of multisensory stimuli is an important success factor in creating experiences and influencing the perception of product design. As there is great potential in the haptic and olfactory senses, marketing managers can appeal to consumers by using, for example, singular scents or special materials. However, to address consumers effectively, marketing managers must be aware of both the explicit and implicit effects when implementing different sensory stimuli to ensure that there is no conflict between the perception levels.

### 1. Introduction

Today, it is becoming increasingly difficult for marketing practitioners to appeal effectively to the consumer. The rapidly growing number of products with the same characteristics and the unsatisfying effects of conventional marketing techniques have led to a demand for more innovative approaches (Lee & Lee, 2004; McNally, Akdeniz & Calantone, 2011). Looking for new ways to differentiate products and brands from competitors, sensory marketing has recently gained growing popularity with both marketing researchers and managers (Krishna & Schwarz, 2014). In addition, a multisensory marketing approach is increasingly shifting into focus to create memorable experiences for the consumer (Lindstrom, 2005). Accordingly, several studies have already investigated the utility of sensory stimuli in terms of a specific consumer approach, particularly in the context of advertisement (Krishna, Cian, & Sokolova, 2016). For instance, evidence is provided for the impact of the salience of touch (e.g., Peck & Childers, 2006), store scent (e.g., Spangenberg, Sprott, Grohmann, & Tracy, 2006), and background music (e.g., Milliman, 1986) on consumer behavior. As a result, some companies have already transferred these insights to traditional print advertisements (Hultén, 2009). It is widely recognized that print advertisement is still a useful and relevant communication medium in today's world, more than ever before, because other advertisement formats, such as TV spots and online ads, are often questioned with regard to their impact on the consumer (Liu & Shrum, 2013; Yoon & Kim, 2001). Therefore, the implementation of, for example, haptic elements, scented stripes, and music-related QR codes to print ads seems to correlate with the aforementioned findings and underlines the broad innovation potential of print advertisement in terms of a multisensory

marketing approach. Although recent studies have helped to provide a better understanding of how specific sensory cues affect consumer perception, there is still much to learn about the causal relationships between sensory perception and brand-related outcomes (e.g., Spence, 2012; Streicher & Estes, 2016). Hence, as sensory cues may be perceived on an explicit or implicit level, it is important to focus on both types of consciousness to assess specific relationships with the product- and brand-related key factors (Krishna, 2012). Moreover, there is still a great need to investigate the aspects underlying the relationship between sensory perception and consumer behavior (Underwood & Klein, 2002). As marketing literature has detected product design and brand experience as relevant factors determining consumer perception and behavior (e.g., Brakus, Schmitt, & Zhang, 2014; Moon, Park, & Kim, 2015), this paper focuses on both constructs to examine their potential mediating role. As deduced from these remarks, the objective of the present study is to close the outlined gaps in the context of potential effects of sensory cues in print advertisement.

The paper is organized as follows: The next chapter provides the theoretical background, including the conceptual framework, outlines the relevant constructs, and deduces the research hypotheses. In the subsequent section, the methodology of the empirical study is described. Next, partial least squares structural equation modeling yields the findings. Finally, the paper provides a discussion and conclusions with an outlook toward future research opportunities.

## 2. Theoretical Background and Hypothesis Development

The conceptual framework is displayed in Figure 1. In the following section, the constructs and relationships of explicit and implicit sensory perception, product design, brand experience, brand perception and consumer behavior are explained in detail.

Sensory perception represents the initial driver of the conceptual model. In this paper, sensory perception is considered the consumer's evaluation of an object (e.g., product or brand) in terms of its appeal to the senses (i.e., visual, acoustic, haptic, olfactory, and gustatory). According to the well-established two-system approach of cognitive psychology (e.g., Kahneman, 2003; Neys, 2006; Slovic, 2002; Stanovich & West, 2002), consumers can form these evaluations in their subconscious (implicit) or conscious (explicit) mind. The implicit system (System 1) generally works quickly, automatically, associatively, and effortlessly. In contrast, the explicit system (System 2) operates slowly, deliberately, sequentially, and with more effort (Kahneman, 2003; Slovic, 2002). Furthermore, consumer choice is always based on both conscious and nonconscious processes; the influence of the nonconscious is particularly central. People perceive numerous stimuli in their environment unconsciously (Fitzsimons, Hutchinson, & Williams, 2002), whether it be music in a commercial, the scent in a store or the way a product feels. Consumers are perpetually confronted with product stimuli, of which only a fraction is actually noticed on an explicit level. People can concentrate on selected stimuli only, and their attentional resources are restricted (Smith & DeCoster, 2000). Although most product information is thus not accessible to the consumers' conscious mind, it can absolutely influence decision processes (Friese, Wänke, & Plessner, 2006). In fact, due to the spontaneous functioning of System 1 and the comparatively very limited capacity of System 2, the latter often adopts the intuitive suggestions of the former (Kahneman, 2011). Positive implicit memory content can, therefore, lead to an equally positive explicit perception (and vice versa) in terms of a compensation of missing conscious information or a justification of the spontaneous suggestion. Thus,

H1: Implicit sensory perception has a positive effect on explicit sensory perception.

In addition to environmental factors (e.g., atmospherics) or individual differences (e.g., gender), a product's intrinsic factors (e.g., color or taste) represent core elements of a perceived product design and impact consumer perception (Krishna, Cian, & Aydinoglu, 2017; Piqueras-Fiszman & Spence, 2015; Zampini, Wantling, Phillips, & Spence, 2008). In fact, there are three dimensions of product design: aesthetics, functionality, and symbolism (Homburg, Schwemmler, & Kuehnl, 2015). Aesthetics indicate the level of the perceived beauty of an object (Desmet & Hekkert, 2007), functionality describes the assumed utility of the product based on design properties (Bloch, 2011), and symbolism explains the degree of identification and meaning a consumer associates with a certain design (Kumar & Noble, 2016). Empirical work in this area suggests relationships between sensory perception and all dimensions of product design (e.g., Aslam, 2006; Hoegg & Alba, 2011; Peck & Childers, 2003; Veryzer & Hutchinson, 1998). Accordingly, the perception of product design can potentially be influenced by both explicit and implicit sensory perception (Veryzer, 1999). Thus, it is influenced by all sensory cues sent out from the product itself (Schifferstein & Desmet, 2008). Therefore, it is assumed that

H2a: Implicit sensory perception has a positive effect on product design.

H3a: Explicit sensory perception has a positive effect on product design.

Whether processed on an implicit or explicit level, the consumer's sensory perception of a product or brand may contribute to a memorable

experience (Hirschman, 1984; Hultén, 2011). According to Brakus, Schmitt, and Zarantonello (2009, 53), the term brand experience can be defined as "subjective, internal consumer responses (sensations, feelings, and cognition) and behavioral responses evoked by brand-related stimuli that are part of a brand's design and identity, packaging, communications, and environments". Companies have various opportunities to build outstanding experiences by appealing to the five senses, for example, through striking pictures that make consumers think, pleasant scents that evoke positive emotions, or exciting music that creates an arousing atmosphere. Moreover, the separate stimuli that a company uses to stimulate the consumer merge into an overall impression (Hultén, 2011; Lindstrom, 2005). For this reason, and to establish a strong holistic experience, sensory marketing must use sensory stimuli coherently and in a mutually reinforcing way to transmit a consistent brand promise (Guzman & Iglesias, 2012). This phenomenon is known as the superadditive effects of sensory stimuli (Lwin, Morrin, & Krishna, 2010). However, brands must also prevent sensory overload. Hence, the amount, content and intensity of sensory stimuli play a major role in creating an ideal brand experience (Krishna, 2012). Thus, we propose

H2b: Implicit sensory perception has a positive effect on the brand experience.

H3b: Explicit sensory perception has a positive effect on the brand experience.

Marketing research has already found evidence for the causal relationship between product design and key indicators of marketing success (Bloch, 1995; Homburg et al., 2015; Montana, Guzman, & Moll, 2007). In short, the creation of a superior product design can significantly enhance customer experience (Brakus et al., 2014). Thus, research from Morgan-Thomas and Veloutsou (2013) has shown that an appropriate design can foster a consumer's entire brand experience. Consequently, several researchers found a strong relationship between the design of a company's products and overall brand perception (e.g., Brunner, Ullrich, Jungen, & Esch, 2016; Mishra, 2016; Wang, 2013). Thus, product design plays a major role in general consumer behavior (Landwehr, Wentzel, & Herrmann, 2012). Accordingly, studies provide evidence for the impact that product design has on different aspects of consumer behavior, such as product and brand choice (e.g., Lim, Kim, & Cheong, 2016) as well as purchase intention (e.g., Beneke, Mathews, Munthre, & Pillay, 2015). Therefore, it is hypothesized

H4a: Product design has a positive effect on the brand experience.

H4b: Product design has a positive effect on brand perception.

H4c: Product design has a positive effect on consumer behavior.

To embed brands deeply in a consumer's mind, the concept of brand experiences has become an important component in marketing communication. Superior experiences are thus created through offering brand-related stimuli as part of, for example, a brand's design, packaging or advertisement, at any time during the encounter (Cliffe & Motion, 2005; Klaus & Maklan, 2007). Research in the field of experience marketing has already shown that brand experiences are highly subjective, vary in strength, intensity, and valence, and engage the customers at different levels (Brakus et al., 2009; Gentile, Spiller, & Noci, 2007; Iglesias, Singh, & Batista-Foguet, 2011; Pine & Gilmore, 1999; Schmitt, 1999). Therefore, we divide the construct into four dimensions: affective, behavioral, cognitive, and sensory (Brakus et al., 2009). The affective component refers to the emotional responses (e.g., fun or pleasure) that are generated through marketing communication. Behavioral experiences are action-oriented and result in physical actions and bodily experiences. The cognitive component aims for mental processes, such as the enhancement of consumer' creativity or the

engagement in deep thinking. Finally, sensory experiences appeal to the five senses, which can further cause excitement and pleasure (Aaker, 1997; Gentile et al., 2007; Schmitt, 1999). Based on the literature, it is argued that a superior brand experience results in differentiation from other brands and builds a positive customer-brand relationship (Chang & Chieng, 2006; Nysveen, Pedersen, & Skard, 2013). Thus, it is assumed that the experience, which is assumed to be stored in a consumer's memory for long-term, promotes strong emotional responses, further leading to a positive brand perception, for example, in terms of brand image and satisfaction. Besides, the experience may also affect future-directed responses. Customers are more likely to be faithful to the brand, have a higher willingness to recommend the brand to others, and intend to buy the brand's products or services (Guzman & Iglesias, 2012; Ha & Perks, 2005; Iglesias et al., 2011). Therefore,

H5a: Brand experience has a positive effect on brand perception.

H5b: Brand experience has a positive effect on consumer behavior.

The existing marketing literature has also shown that brand perception, which is understood as the consumer's general perception of and feeling about a brand, is considered to be a key driver of brand equity and thus has the potential to influence consumer behavior (e.g., Belén del Rio, Vazquez, & Iglesias, 2001; Esch, Langner, Schmitt, & Geus, 2006; Faircloth, Capella, & Alford, 2001; Keller, 1993). Therefore, in the given context of the print advertisement, it is suggested that positive brand perception leads to such behavioral outcomes as consumer willingness to buy the product, to pay a premium price, and to offer positive recommendations. Thus,

H6: Brand perception has a positive effect on consumer behavior.

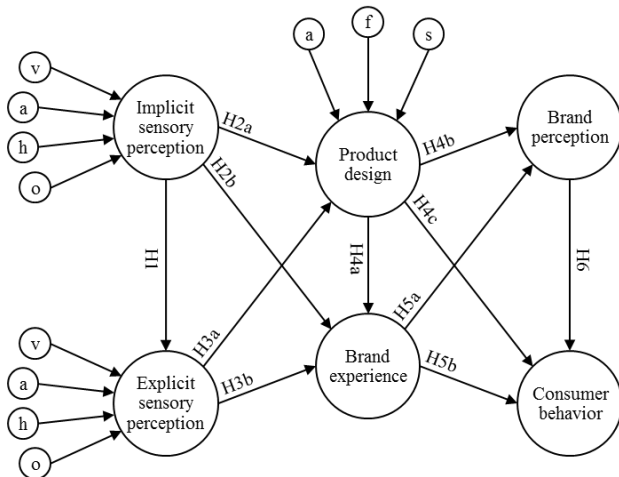


Figure 1: Conceptual model

### 3. Methodology

#### 3.1 Measures

The introduced conceptual model consists of three formative (i.e., implicit sensory perception, explicit sensory perception, and product design) and three reflective (i.e., brand experience, brand perception, and consumer behavior) measurement models (see Figure 1). In particular, to capture implicit and explicit sensory perception, we adapted the sensory perception items (SPI) developed by Haase and Wiedmann (2017). To measure the three dimensions of product design (i.e., aesthetic, functionality, and symbolism), the original scale of Homburg et al. (2015) was adopted. For measuring the four dimensions of brand experience (i.e., sensory, affective, behavioral, and intellectual), the item set developed by Brakus et al. was applied (2009). The measurement of brand perception

(i.e., image, satisfaction, and trust) and consumer behavior (i.e., loyalty, price premium, and willingness to buy) employs items developed by Wiedmann, Hennigs, Schmidt, and Wuestefeld (2011). Finally, all items were specified to an advertisement context and rated on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree).

#### 3.2 Data Collection and Sample

To test the introduced conceptual model, a laboratory experiment was conducted in July 2016. The main objective was to investigate the sensory perception of a specially prepared print ad promoting both a female and a male fragrance. To achieve a haptic effect, a self-adhesive foil highlighting the perfume bottles and brand logo was incorporated. In addition, a QR code playing the advertising jingle when activated was added for acoustics, and the corresponding perfume was sprayed on the print ad to appeal to the olfactory sense. The initial part of the study included direct stimulus contact, where participants had to absorb the sensory stimuli from the print ad. Next, the subjects were asked to evaluate the perfume, the men rating only the male fragrance and the women only the female fragrance. First, the participants completed a forced-choice implicit association test. Subsequently, a questionnaire was filled out: the first section asked introductory questions on, for example, the participants' familiarity with perfumes and the brand; the second and main section included queries about the test variables (i.e., implicit and explicit sensory perception, product design, brand experience, brand perception, and consumer behavior); and the third section contained social demographics.

In total, 77 subjects participated in the study. Table 1 presents the corresponding characteristics of the sample. The participants' age ranged from 19 to 82, having an average age of 35.25 years. Most of the respondents were female (50.6%), single (64.9%), had a university degree (46.7%), were students (42.9%) and had a monthly income of either between 2000€ and 3000€ (20.8%) or higher than 4000€ (20.8%), respectively.

#### 3.3 Data Analysis

The analysis software SPSS 24.0 was applied for the descriptive analysis of the demographic sample characteristics (i.e., means and frequencies) and for some aspects of the evaluation of the measurement models (i.e., Pearson correlation coefficient, Cronbach's alpha, and variance inflation factor). For hypotheses testing, partial least squares structural equation modeling (PLS-SEM) was used, as the conceptual model contains reflective and formative indicators. The data analysis follows a two-step approach involving the evaluation of first the measurement models and second the structural model (Henseler, Ringle, & Sinkovics, 2009). For that purpose, the SmartPLS 2.0 analysis software was applied (Ringle, Wende, & Will, 2005) including the PLS algorithm (path weighting scheme) and bootstrapping and blindfolding and procedure (individual sign changes).

**Table 1:** Sample Characteristics

Variable	Characteristics	n	%
Age	18 – 24 years	23	29.9
	25 – 49 years	35	45.5
	> 50 years	19	24.7
Gender	female	39	50.6
	male	38	49.4
Marital status	single	50	64.9
	married	25	32.5
	divorced	2	2.6
Education	junior high school diploma	15	19.5
	senior high school diploma	26	33.8
	university degree	36	46.7
Occupation	scholar	1	1.3
	trainee	1	1.3
	student	33	42.9
	full-time employee	32	41.6
	part-time employee	4	5.2
	housewife/househusband	1	1.3
	retired	5	6.5
Income	< 1000 €	13	16.9
	1000 – 2000 €	14	18.2
	2000 – 3000 €	16	20.8
	3000 – 4000 €	13	16.9
	> 4000 €	16	20.8
	no answer	5	6.5
<b>Total sample size</b>		<b>77</b>	<b>100.0</b>

## 4. Findings

### 4.1 Evaluation of the Measurement Models

Prior to hypothesis testing, the measurement models are first checked to ensure reliability and validity (Henseler et al., 2009). With regard to the formative constructs (i.e., implicit sensory perception, explicit sensory perception, and product design), Table 2 presents the respective quality criteria. As required by Hair, Sarstedt, Ringle, and Mena (2012), all items show outer weights higher than 0.1. Except for the implicit visual and acoustic perception, all items have t values above 1.645 and are thus, at least on a 10% level, significantly important for the respective measurement model. Further, the maximum variance inflation factor (VIF) is 1.834, far below the limit of 10, so there are no multicollinearity problems (Diamantopoulos, Riefler, & Roth, 2008).

Referring to the reflective measurement models (i.e., brand experience, brand perception, and consumer behavior), Table 3 shows the values checking for quality. The criteria are satisfied throughout. The factor loadings, with a minimum value of 0.785, all exceed the limit of 0.7. Accordingly, indicator reliability is given (Hair, Ringle, & Sarstedt, 2011). The average variance extracted (AVE) clearly exceeds the 50% requirement, as it shows a minimum amount of 74.2%. This confirms convergent validity. Moreover, the AVE is always higher than the highest squared correlation with another latent variable. Thus, the Fornell-Larcker-criterion for discriminant validity is satisfied (Fornell & Larcker, 1981). Finally, the composite reliability shows its minimum at 0.901 and Cronbach's alpha at 0.833, both of which are far above the limits of 0.7 and 0.6, respectively. Consequently, internal consistency reliability is also fulfilled (Bagozzi & Yi, 2012; Churchill, 1979; Peterson, 1994).

**Table 2:** Evaluation of the formative measurement models

	Weights	t value	VIF
<b>Implicit sensory perception</b>			
Visual	0.191	1.154	1.555
Acoustic	0.135	1.096	1.378
Haptic	0.591	3.579	1.834
Olfactory	0.311	1.923	1.722
<b>Explicit sensory perception</b>			
Visual	0.508	3.895	1.335
Acoustic	0.278	2.389	1.188
Haptic	0.335	2.881	1.490
Olfactory	0.263	2.161	1.339
<b>Product design</b>			
Aesthetics	0.406	3.480	1.520
Functionality	0.301	2.644	1.397
Symbolism	0.547	5.900	1.295

**Note:** VIF = variance inflation factor.

**Table 3:** Evaluation of the reflective measurement models

	Loadings	AVE	$\alpha$	$\rho_c$	FLC (AVE > r <sup>2</sup> )
Brand experience	0.844–0.884	0.742	0.884	0.920	0.742 > 0.480
Brand perception	0.862–0.910	0.790	0.867	0.918	0.790 > 0.625
Consumer behavior	0.785–0.909	0.752	0.833	0.901	0.752 > 0.625

**Note:**  $\alpha$  = Cronbach's alpha; AVE = average variance extracted; FLC = Fornell Larcker criterion;  $\rho_c$  = composite reliability; r<sup>2</sup> = highest latent variable correlation squared.

To preclude common method bias, Harman's one-factor test for the explicit measures was used. The explained variance for the single factor is at 35.14%. As this value clearly remains under the upper limit of 50%, the data are not biased by the source of the measurements (Podsakoff & Organ, 1986).

### 4.2 Evaluation of the Structural Model

In addition to the measurement models, the quality of the structural model must be tested. Table 4 shows the respective values of two prediction-oriented and nonparametric measures, the coefficient of determination (R<sup>2</sup>) and the cross-validated redundancy measure (Q<sup>2</sup>). R<sup>2</sup> ranges from 0.372 to 0.667. Thus, the results indicate a satisfactory goodness of fit (Chin, 1998). Furthermore, Q<sup>2</sup> reveals a minimum value of 0.309. Hence, all values are positive, which confirms the model's predictive relevance (Geisser 1974; Stone 1974).

**Table 4:** Evaluation of the structural model

	R <sup>2</sup>	Q <sup>2</sup>
Explicit sensory perception	0.551	-
Product design	0.372	-
Brand experience	0.440	0.309
Brand perception	0.557	0.400
Consumer behavior	0.667	0.453

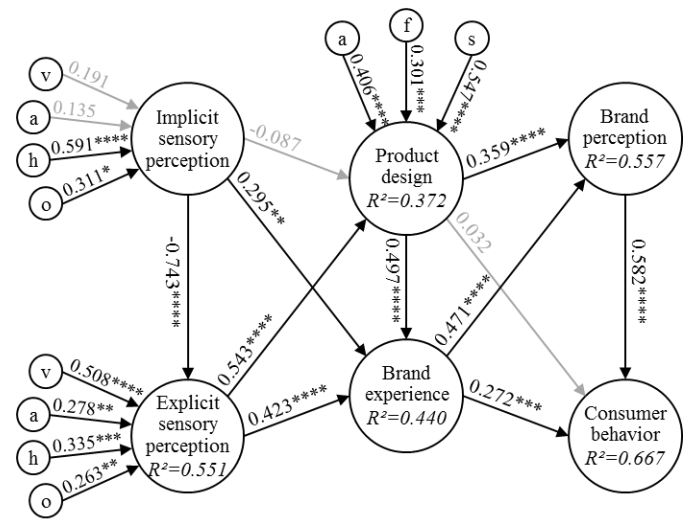
Finally, the research hypotheses can be verified. Table 5 shows the t values and path coefficients representing the significance and strength of the structural relations between the latent variables.

**Table 5:** Bootstrapping results for the causal relationships

			Original sample	Sample mean	SD	t value	
<b>H1:</b>	ISP	→	ESP	-0.743	-0.753	0.068	10.867
<b>H2a:</b>	ISP	→	PD	-0.087	-0.131	0.091	0.955
<b>H2b:</b>	ISP	→	BE	0.295	0.293	0.122	2.414
<b>H3a:</b>	ESP	→	PD	0.543	0.566	0.111	4.874
<b>H3b:</b>	ESP	→	BE	0.423	0.437	0.123	3.433
<b>H4a:</b>	PD	→	BE	0.497	0.490	0.068	7.353
<b>H4b:</b>	PD	→	BP	0.359	0.355	0.079	4.560
<b>H4c:</b>	PD	→	CB	0.032	0.066	0.050	0.644
<b>H5a:</b>	BE	→	BP	0.471	0.475	0.073	6.441
<b>H5b:</b>	BE	→	CB	0.272	0.278	0.088	3.095
<b>H6:</b>	BP	→	CB	0.582	0.570	0.088	6.635

**Note:** SD = standard deviation; ISP = implicit sensory perception; ESP = explicit sensory perception; PD = product design; BE = brand experience; BP = brand perception; CB = consumer behavior.

With reference to the first hypothesis, which covers the influence of the implicit on the explicit system, the results actually reveal a highly significant effect, although it is negative ( $b = -0.743$ ,  $p \leq 0.001$ ). However insightful, hypothesis H1 in its above-postulated form must be rejected. The next four hypotheses address the driving role of sensory perception for product design and brand experience. The findings show that perceived product design is driven only by the explicit component of sensory perception ( $b = 0.543$ ,  $p \leq 0.001$ ), not by the implicit one ( $b = -0.087$ ,  $p > 0.1$ ). Moreover, the experience with a brand is significantly affected by both explicit sensory perception ( $b = 0.423$ ,  $p \leq 0.001$ ) and implicit sensory perception ( $b = 0.295$ ,  $p \leq 0.05$ ). Hence, hypothesis H2a is rejected, while hypotheses H2b, H3a, and H3b find full empirical support. Further, the following three hypotheses address the effect of product design on brand-related outcome variables. More specifically, the study provides evidence for a highly significant impact on brand experience ( $b = 0.497$ ,  $p \leq 0.001$ ) and brand perception ( $b = 0.359$ ,  $p \leq 0.001$ ). By contrast, consumer behavior is not directly enhanced by product design ( $b = 0.032$ ,  $p > 0.1$ ). Consequently, hypothesis H4c is rejected, but hypotheses H4a and H4b are confirmed. Moreover, the effect of brand experience on brand-related outcome variables is tested. The results indicate that a positive experience with a brand contributes to a better overall perception of that brand ( $b = 0.471$ ,  $p \leq 0.001$ ) and a more favorable behavior of the consumer toward that brand ( $b = 0.272$ ,  $p \leq 0.01$ ). Thus, both hypotheses H5a and H5b are verified. Finally, the last hypothesis contains the effect of brand perception on consumer behavior. Correlating with former research, the findings show a highly significant and strong causal relationship ( $b = 0.582$ ,  $p \leq 0.001$ ). Overall, the results reveal that eight of the eleven hypotheses find full empirical support, so a causal chain of direct and indirect effects from sensory perception to consumer behavior is detected (see Figure 2).



**Figure 2:** Empirical model

**Note:** \*\*\*\*  $p \leq 0.001$ ; \*\*\*  $p \leq 0.01$ ; \*\*  $p \leq 0.05$ ; \*  $p \leq 0.1$ .

## 5. Discussion

The data analysis confirms a major part of the theoretically based model. The results reveal that sensory perception is an important driver of product- and brand-related outcome variables in the chosen context of the print advertisement. Specifically, the incorporation and coherent use of several sensory stimuli lead to positive consumer behavior. The findings show a positive, indirect effect of explicit sensory perception on both brand perception and consumer behavior. In this context, product design and brand experience work as mediators. On an explicit level, all sensory drivers show significant results. The visual perception is the most important driver ( $b = 0.508$ ,  $p \leq 0.001$ ). Haptic perception plays a substantial but less significant role ( $b = 0.335$ ,  $p \leq 0.01$ ), followed by acoustic and olfactory perception, which have almost equal effects ( $b = 0.278$ ,  $p \leq 0.05$ ;  $b = 0.263$ ,  $p \leq 0.05$ ). The findings correlate with existing marketing literature, highlighting visual perception as the strongest driver in most contexts (Schiffstein, 2006). However, our results also point to the importance of the other senses. With regard to the implicit level, only two of the four drivers are significant. Haptic perception is the most powerful driver ( $b = 0.591$ ,  $p \leq 0.001$ ). Olfactory perception plays a lesser but still significant and essential role ( $b = 0.311$ ,  $p \leq 0.1$ ). The reason for the strong effect of haptic perception on an explicit and implicit level might be found in the nature of print ads: as they are usually integrated into advertising materials made of paper (e.g., in journals), contact with the ad is often accompanied by physically touching it. This is why haptic perception might have such a strong, positive influence. For olfactory perception, the value for the implicit perception is higher than for the explicit perception. Therefore, it can be assumed that the olfactory sense is perceived more strongly on an implicit level and that the dominant implicit perception causes an inferior explicit effect. In fact, haptic and olfactory perception might also be influenced by imagery induced by, for example, the visual cues of the advertisement (Deng & Kahn, 2009; Krishna, Morrin, & Sayin, 2013). However, the direct effect of implicit on explicit sensory perception is negative. A potential reason for this result could be that the participants were implicitly averse to the print ad, which was rather indecent in terms of showing a half-naked man touching an attractive woman. However, the respondents did not express this reluctance explicitly. Because the print ad promotes a renowned luxury brand, this contradiction might be explained by the participants' generally positive attitude toward that brand, regardless of the print ad. Thus, if marketing managers implement different sensory stimuli, they must be

aware of both the explicit and implicit effects and, to make the advertisement more effective, should ensure that there is no conflict between the perception levels.

The study reveals the significance of various senses on an explicit and implicit level, providing evidence for the importance of a multisensory marketing approach in which the appeal of all senses is paramount. Moreover, the results confirm a positive and strong effect of explicit sensory perception on perceived product design, whereas implicit sensory perception shows only an indirect effect through explicit sensory perception. All dimensions of product design reveal significant results. Symbolism seems to be the strongest driver ( $b = 0.547$ ,  $p \leq 0.001$ ), followed by aesthetics ( $b = 0.406$ ,  $p \leq 0.001$ ) and functionality ( $b = 0.301$ ,  $p \leq 0.01$ ). These findings correlate with recent insights emphasizing the importance of the symbolic dimension when examining aspects of product design. In the specific case of the print advertisement, the sensory stimuli perceived from the print ad mainly promote the appearance of the product and communicate symbolic value but only partly explain the functional aspects. Thus, marketing managers should always be aware of the specific positioning context in which they are operating and further conclude from this which product design dimensions might be of increased importance for an overall evaluation. Additionally, to address a specific dimension, the product itself must be created in a multisensory way to provide additional information on a conscious or subconscious level. Moreover, for brand experience, the results indicate a positive direct effect from implicit and explicit sensory perception and perceived product design as well as an indirect effect from implicit sensory perception, where explicit sensory perception and product design work as mediators. In the given context of print ads, the composition of different sensory stimuli and the promotion of the product itself can be used to implement a holistic experiential marketing concept that evokes positive feelings or engages consumers in deep thinking and attracts behavioral options.

The question arises of how sensory stimuli can be designed to be fully effective in addressing the different experience components. In addition, the sensory perception has an indirect impact on perceived product design. This is why the use of sensory stimuli can be linked to the promoted product to achieve a strong effect, for example, through special haptic, olfactory or acoustic elements highlighting the specific product within the ad. Moreover, product design and brand experience show a strong and positive impact on brand-related outcomes. Because brand perception also positively influences consumer behavior, there are partial mediator effects in both cases. First, the perceived product design has no direct impact on consumer behavior but has an indirect impact on brand experience and brand perception. Second, brand experience influences consumer behavior both directly and indirectly through brand perception. Thus, when consumers perceive product design and brand experience well, their behavior becomes more favorable, and they experience a positive overall assessment of the brand. Accordingly, to build a positive relationship between the customer and the brand with the help of a multisensory marketing concept, special attention should be paid to the mediation of strong product design and brand experience. These can be seen as important drivers, as they explain 55% of the variance of brand perception and 66% of the variance of consumer behavior.

To conclude, in the given context of print ads, the data analysis shows that implicit and explicit sensory perception is relevant success drivers for the implementation of a brand experience and for strengthening the perceived product design, which in turn leads to a satisfied and loyal customer. To gain a positive overall assessment of a brand in terms of

brand image, trust, and satisfaction and to make customers buy the brand's products, an appealing product design and an integrated experiential marketing approach are crucial. Accordingly, the implementation of different sensory stimuli seems to be a promising brand management tool for creating effective print ads. Hence, our results broaden conventional thinking that has focused on the visual sense as the only one to appeal to.

## 6. Conclusions and Outlook

The aim of this paper was to analyze the potential of sensory cues in the context of the print advertisement. The results confirm the assumption that addressing different sensory modalities in a congruent way can have a positive influence on brand-related outcome variables. In particular, the study provides new insights into the effects of both explicit and implicit sensory perception on product design, brand experience, brand perception, and consumer behavior. Furthermore, it has been shown that product design and brand experience act as mediating factors between the consumer's sensual stimulation and response.

Moreover, our results provide an opportunity for further research, especially in the field of sensory marketing. First, it would be interesting to determine which sensory modalities have the strongest impact. Therefore, a group comparison study with different amounts of sensory stimuli per group would be necessary. In addition, the use of various sensory stimuli with different characteristics would add even more insights to this topic. Second, the impact of demographic, cultural, and situational aspects as moderator variables could be assessed to gain more insights into the underlying relationships. Third, the conceptual model can be used as a foundation in the context of (print) advertisement and in many other areas (e.g., product policy). Although there is still a great need for more research to understand the underlying relationships, these findings will also help brand managers, especially in the field of print advertisement, to manage sensory stimuli effectively and succeed in a competitive market. To this end, the results also emphasize that when implementing a successful multisensory marketing strategy, "how" things are done is more important than "whether" something is done.

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**P6:**

**How to best promote my product? Comparing the effectiveness of sensory,  
functional and symbolic advertising content in food marketing**

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# **How to best promote my product? Comparing the effectiveness of sensory, functional and symbolic advertising content in food marketing**

## **Abstract**

**Purpose** – Advertising is one of the most important components of food marketing. However, there is uncertainty over the optimal means of convincing consumers to buy a product. The purpose of this paper is to examine the effectiveness of advertising content comprising text (sensory, functional and symbolic messages) and pictures (product image) on food product evaluation.

**Design/methodology/approach** – Two online experiments investigating strawberry advertisements were performed. Study 1 incorporated only text, whereas Study 2 investigated combinations of text and pictures. Analyses of variance were conducted to determine any significant differences among the three texts (sensory, functional and symbolic) and among the combinations of text and pictures.

**Findings** – Study 1 revealed no significant differences. All three texts were well received, which shows the relevance of all the product benefits – sensory, functional and symbolic – for food products. In contrast, Study 2 identified significant differences. The data analysis indicated that advertising effectiveness increases with the complementarity of the text and picture. Notably, the combination of the product picture and symbolic text was scored the highest for effectiveness.

**Originality/value** – The findings provide new insights into advertising design that food firms can use to enhance consumer product evaluations in terms of expected taste, perceived experience and quality, overall attitude and purchase intention. Further, the results contribute

to the research stream of food product benefits by highlighting the relevance of sensory, functional and symbolic design elements.

**Keywords:** Advertising design, Advertising effectiveness, Advertising content, Food marketing, Food products, Product evaluation, Product design, Sensory, Functional, Symbolic

**Paper type:** Research paper

## Introduction

Advertising is one of the most important means of appealing to consumers (Sethuraman *et al.*, 2011) and providing product information (Nelson, 1974; Koetz *et al.*, 2017). In marketing practice, there is often uncertainty concerning whether advertising is used most effectively (Aaker and Carman, 1982; Tellis, 2003). Additionally, in the marketing literature, the effectiveness of advertising is a popular topic (e.g., Frazer *et al.*, 2002; Gallagher *et al.*, 2001; MacKenzie *et al.*, 1986; Petty *et al.*, 1983; Woodside, 2016), particularly in the field of food products (e.g., Kareklas *et al.*, 2014; Parker, 2003; Schifferstein *et al.*, 2013; Theocharous, 2015; van Kleef *et al.*, 2005; Vlachvei *et al.*, 2009; Zandstra *et al.*, 2017). One key recurring question in advertising design relates to the content of ads. The content forms associations with the product (Lane, 2000) and is thus essential for the evaluation of the product. By establishing effective advertising messages, firms may improve the perceptual and attitudinal components of product perception (Olney *et al.*, 1991) and may elicit actual purchase behaviours (Resnik and Stern, 1977). Nonetheless, what kind of advertising messages are most effective in the context of food products?

The objective of this paper is to examine the influence of advertising content (in terms of sensory, functional and symbolic advertising designs) on food product evaluation (in terms of gustatory perception, product experience, product quality, attitude towards the product and purchase intention). For this purpose, two exploratory studies are performed to analyse the differences among the three conditions. In line with McQuarrie and Mick (1999) and Pieters and Wedel (2004), this paper considers text and pictures as the two key advertising elements to examine. The first study considers only advertising text. However, because a picture in an advertisement can change consumer perceptions (Edell and Staelin, 1983; Wang, 2013), a second study investigates the combination of three different advertising texts with a picture of the product, which in this paper is strawberries. Using this exploratory approach, this study

examines how the two advertising elements are best assembled to achieve the strongest effect. The paper is organized as follows. First, it provides the theoretical background addressing advertising design in food marketing that leads to the research question. The subsequent section presents the methodology for both studies by providing information on the research design, measures, procedure and stimulus material, which is developed based on two preliminary studies. Then, the findings of Study 1 and Study 2 are presented. Finally, the paper presents the discussion of the results, followed by the conclusion, implications, limitations and future research suggestions.

## **Theoretical background**

Recent elaborations in the field of product design suggest that people essentially value a product's appearance based on three different design dimensions. In detail, these design dimensions are perceived aesthetics, functionality and symbolism (Brunner *et al.*, 2016; Candi, 2007; Homburg *et al.*, 2015; Ulrich, 2011). Aesthetics relates to the perceived beauty of a product and the general hedonic pleasure that a consumer receives from its sensory attributes (Desmet and Hekkert, 2007). Functionality indicates the perceived utilitarian value of a product's design (Bloch, 2011). Symbolism captures all aspects of the meanings, messages and associations that the design of a product transfers to the consumer (Kumar and Noble, 2016). With regard to food products, all of these dimensions are essential in a consumer's product perception and product choice, as recent research showed (Grunert *et al.*, 2000). First, appearance is very important for the holistic evaluation of a food product (Imram, 1999). Accordingly, Michel *et al.* (2014) showed that the perception of a food product's beauty and attractiveness can be a relevant factor for food product evaluation. Second, the functional aspects of food are considered to be very important from a consumer perspective and have been



the focus of several past studies. For instance, van Kleef *et al.* (2005) provided insights into the impact of functional food benefits on consumers' food evaluations. Moreover, Siró *et al.* (2008) wrote a review paper on functional foods that highlighted the impacts of functional benefits on food product perception. Finally, symbolic benefits are significant for food product evaluation as well (Zandstra *et al.*, 2017). For instance, Robinson and Higgs (2012) showed that social information about how much a popular group likes a specific orange juice influences consumers' expectation of whether they will like that orange juice. Moreover, Magnier *et al.* (2016) demonstrated that food packaging that is associated with sustainability leads to higher perceived product quality. Additionally, in her overview paper on the decisive factors for food product evaluations, Jaeger (2006) identified symbolic aspects, such as branding and social issues.

In the literature, sources of the product evaluation process are typically divided further into intrinsic and extrinsic product factors. Intrinsic factors are inextricably linked to the product, including specific sensory attributes such as the colour or texture of a food product. Conversely, extrinsic factors include all context influences that are somehow related to the product, such as the packaging, point of sale and all other sources of information provided by advertising (Krishna *et al.*, 2017; Mueller and Szolnoki, 2010; Piqueras-Fiszman and Spence, 2015). As previously mentioned, advertisement is a powerful tool to influence consumer perceptions of a product in general. Accordingly, previous research in this area has investigated different relationships between advertising design and subsequent product evaluation (e.g., Boerman *et al.*, 2017; Chang and Yen, 2013; Friedman *et al.*, 1976; Wilkinson *et al.*, 1975). Among others, one important factor in advertisement is the content design. In particular, the wording of an advertisement, either written or spoken, affects the generated frame in which the product is perceived (Decrop, 2007). Correspondingly, in their research on transformational advertisement appeals, Naylor *et al.* (2008) found evidence regarding the influence of

advertising messages on hedonic, functional and symbolic product benefits. For food products, hedonic and aesthetic benefits are mainly based on the sensory attributes of the product (Schifferstein, 2015). Moreover, utilitarian and functional benefits predominantly emerge from the nutrients and ingredients of the food (Siró *et al.*, 2008). However, further contextual information about a food's origin and methods of manufacturing are the main drivers of symbolic benefits (Troye and Supphellen, 2012).

Based on the seminal framework of food acceptance by Cardello (1994) and the model of food information processing by Cardello and Wright (2010), contextual factors such as advertisement messages are also highly relevant for consumers' food perceptions. In accordance, recent findings have further emphasized the importance of contextual aspects for food product evaluation. For example, Schifferstein *et al.* (2013) found differences in consumers' food perceptions among the various stages of user-product interaction, such as choosing a product on a supermarket shelf and unpacking the product at home. Moreover, research from Piqueras-Fiszman *et al.* (2012) and Velasco *et al.* (2013) provided evidence for contextual and environmental effects on perceived taste. Piqueras-Fiszman *et al.* (2012) demonstrated that the colour of the plate that a food is served on influences the taste perception, such as the sweetness of the food. Similarly, Velasco *et al.* (2013) showed the contextual effects on perceived taste by varying the atmosphere in terms of multisensory attributes. Amid this background of contextual effects and with regard to food advertisements, Jaeger and MacFie (2000) showed, based on the MECCAS (Means-End Conceptualization of the Components of Advertising Strategy) framework, how different contents of health-related advertisements can influence consumer perception and behaviour. Furthermore, Kareklas *et al.* (2014) found positive effects of specific advertisement claims on organic food perception. However, because research on the relationship between advertising design and food product evaluation is still scarce, there remains a need to focus on investigating the general effectiveness of different

advertising content designs (e.g., sensory, functional and symbolic product information) on food product evaluation (Jaeger and MacFie, 2001; Wyer *et al.*, 2008). Based on these remarks and the aforementioned three-dimensional model of product design, the general research question of this paper is postulated as follows:

**RQ:** Do significant differences exist between sensory, functional and symbolic advertising designs with regard to food product evaluation?

## **Methodology**

### *Research design*

To explore the research question, quantitative data analysis was chosen for the present studies. The findings are based on two online studies carried out in Germany. The studies investigate two different scenarios with regard to advertising design. The first study considers only advertising text with sensory, functional and symbolic messages and tests for differences in food product evaluation. The second study considers the combinations of the three advertising texts with a product picture (here, an image of strawberries) and again checks for differences in food product evaluation. This approach is used to identify how the two advertising elements (i.e., text and pictures) are best arranged to achieve the greatest possible effectiveness. Before the research question was investigated, two preliminary studies were conducted to establish the stimulus material for the main studies. Therefore, an association task based on the MECCAS model and a subsequent manipulation check were used to develop the three advertising texts (i.e., sensory, functional and symbolic).

## *Measures*

For the two main studies, the same questionnaire was applied (differing only with regard to the stimulus material). The questionnaire assessed the variables gustatory perception, product experience, product quality, attitude and purchase intention because they have been identified as relevant key factors in the context of food product evaluation (e.g., Paul and Rana, 2012; Raghunathan *et al.*, 2006; Spence and Piqueras-Fiszman, 2014). To measure gustatory perception, the sensory perception item set (SPI) established by Haase and Wiedmann (2017) was applied. The measurement of product experience relied on the original scale of Brakus *et al.* (2009), and product quality was measured via the scale of Low and Lamb (2000). The measurement of the other two outcome variables was based on single-item scales. To capture the attitude towards the product, the statement “I have a positive attitude towards the product” from Burton *et al.* (1998) was used. Purchase intention was measured by the item “I intend to buy the product in the future” according to Esch *et al.* (2006). All items were specified to the product context of strawberries. Finally, they were rated using a five-point Likert scale (1 = strongly disagree, 5 = strongly agree), except for product quality, which was assessed using an eleven-point semantic differential (e.g., 1 = insufficient, 11 = excellent). To increase the quality of the main studies, five independent subjects checked and confirmed the final questionnaire with regard to its readability, comprehensibility and length (Hunt *et al.*, 1982).

## *Procedure*

For data collection, the questionnaire for Study 1 and Study 2 was sent out via an online link by marketing students in exchange for course credit. The structure of the questionnaire was as follows. The first section included introductory questions regarding, for example, the participants' familiarity and involvement with strawberries. Next, by random selection, either one of the three advertising texts (Study 1) or a combination of one of the three advertising

texts and the product picture (Study 2) was shown. Subsequently, the second and main section included inquiries about the given test variables. Based on the advertisement shown, subjects evaluated the described product (i.e., the strawberries) with regard to their gustatory perception, perceived product experience, product quality, attitude towards the product and purchase intention. Finally, the third section contained social demographics (e.g., age and gender).

### *Data analysis*

All analyses were conducted with the software SPSS 24.0. For the selection of the stimulus material and the description of sample characteristics, the frequencies and means of the participants' responses were computed. For the investigation of possible differences and/or similarities across the three advertising texts, the measurement models were first checked for validity and reliability based on a series of confirmatory factor analyses. In this regard, several quality criteria (i.e., factor loadings, average variance extracted (AVE) and Cronbach's alpha) were used for the evaluation. Then, analyses of variance (ANOVAs) were conducted to determine the significant differences between the three groups.

### *Stimulus material*

To develop and select the stimulus material, two preliminary studies were conducted, one for the text generation and another for the manipulation check. First, to investigate the effectiveness of different advertising contents with regard to consumer product evaluation, three different advertising texts appealing to the consumer in a sensory, functional or symbolic way were developed. Therefore, our approach followed the established MECCAS paradigm for creating text advertisements. Using the MECCAS model, the elements of the means-end chain (MEC) for the product of interest are collected and translated into strategic MECCAS elements in terms of message elements with consumer benefits. These elements provide a

framework for communicating important product characteristics in a targeted manner (Reynolds and Whitlark, 1995). Accordingly, for text generation, 40 marketing students who were recruited in exchange for course credit completed a word association task. A sample primarily consisting of students was chosen to obtain a balanced set of data with regard to age, education and other demographic characteristics (Agrawal *et al.*, 2001; Dawar and Parker, 1994). The students were asked to provide as many positive attributes of strawberries as they could think of. In total, 301 associations were received (e.g., sweet, rich in vitamins, and natural). Next, the respective attributes were assigned to the sensory, functional or symbolic category by two independent researchers. With frequency analyses for each category, the attributes that were most frequently associated with strawberries were selected and thus included in the advertising texts. In detail, 15 attributes (five per text) were specifically implemented. Each text consisted of a catchy heading and a slogan touting strawberries in a sensory, functional or symbolic way. The sensory text emphasized the good taste, juiciness, sweet aroma, fruity scent and intense red colour of the strawberries. The functional text highlighted the quality and excellence, the value for the money, and the richness in nutrients and vitamins. The symbolic text created a context around the strawberries by describing them as an organic food product and emphasized the sustainable and local cultivation, naturalness, and fresh harvest from the farmer. A second preliminary study conducted with 36 marketing students tested for the successful manipulation of the three advertising texts. The participants were randomly assigned to one of the three text conditions. After exposure to the advertisement, they were asked to rate the degree to which the shown advertisement delivered sensory, functional and symbolic value. The measures were assessed using a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). A mean comparison was applied to check for the intended effect of each text. The results revealed satisfactory values. The sensory,

functional and symbolic perceptions of the promoted strawberries were the strongest when the respective text was read.

The three texts were used for both Study 1 and Study 2. In addition, for Study 2, a picture of the product was combined with the three texts (see Figure 1). The picture showed strawberries as they can also be found in the supermarket display. As a result, the stimuli used are more realistic, increasing the practical relevance of this study.

Insert Figure 1 about here.

## **Results**

### *Study 1*

The first study tests for significant differences between the three advertising texts with regard to food product evaluation. Marketing students recruited the respondents in exchange for course credit. In total, 157 respondents participated in the study (see Table 1). The ages ranged from 17 to 61 years with an average age of 29.34 years. The gender distribution was nearly equal (47.1% female, 52.2% male).

Insert Table 1 about here.

First, the measurement models were checked by means of different quality criteria (Henseler *et al.*, 2009). The results revealed satisfactory values for all factors. The factor loadings ranged from 0.676 to 0.928, thus exceeding the critical limit of 0.5 (Bagozzi and Yi, 1988). Moreover, the AVE surpassed the limit of 50%, showing a minimum value of 52.4% (Fornell and Larcker, 1981). Finally, Cronbach's alpha values ranged from 0.695 to 0.881, which is above the limit of 0.5 (Nunnally, 1967). Subsequently, one-way ANOVAs were conducted to check the research question. For this purpose, advertising content was the independent variable, and the five factors representing food product evaluation mentioned above were the dependent

variables. The results are reported in Table 2. The data analysis shows that the participants do not significantly differ in their product evaluation ( $p > 0.1$ ). Thus, the product itself has been well evaluated for each text since it has a mean value above 8.4 for product quality and mean values primarily above 4 for the other constructs.

Insert Table 2 about here.

### *Study 2*

The use of a picture in an advertisement can alter consumer perception (Edell and Staelin, 1983; Wang, 2013). Thus, a second study was conducted to analyse the combinations of the three advertising texts with a picture of the product. Similar to Study 1, marketing students recruited the respondents in exchange for course credit. In total, the sample consisted of 165 respondents (see Table 3). The participants' ages ranged from 16 to 79 years, with an average age of 27.18 years. With regard to gender, 46.1% were female, and 53.3% were male.

Insert Table 3 about here.

The results of the factor analyses showed satisfactory values for all variables. The factor loadings were between 0.641 and 0.943, and the AVE values were between 0.54 and 0.727. Finally, the minimum Cronbach's alpha was 0.716, indicating reliability for all factors. Thus, as the measurement models are valid and reliable, the research question can be tested in the following. The results of the one-way ANOVAs are presented in Table 4. In this case, the data analysis revealed significant differences between the different groups in all variables. In detail, advertising content (i.e., sensory, functional or symbolic) has a significant impact on gustatory perception ( $F(2, 162) = 4.956, p \leq 0.05$ ), product experience ( $F(2, 162) = 2.863, p \leq 0.1$ ), product quality ( $F(2, 162) = 3.329, p \leq 0.05$ ), attitude towards the product ( $F(2, 162) = 3.232, p \leq 0.05$ ) and purchase intention ( $F(2, 162) = 2.488, p \leq 0.1$ ). To identify significant differences between single groups, Scheffé post hoc tests were conducted. For all five factors, the results



indicated significant differences between the sensory and symbolic advertising text. In addition, for gustatory perception, the perception of the strawberries also significantly differed between the sensory and functional text. With regard to the magnitude of the measures, both the functional and symbolic groups showed greater values than the sensory group ( $M_{\text{sensory}} = 3.878$  vs.  $M_{\text{functional}} = 4.257$ ,  $p \leq 0.05$ ;  $M_{\text{sensory}} = 3.878$  vs.  $M_{\text{symbolic}} = 4.240$ ,  $p \leq 0.05$ ). Furthermore, participants with symbolic text also rated the product experience significantly higher than those with sensory text ( $M_{\text{sensory}} = 2.667$  vs.  $M_{\text{symbolic}} = 3.068$ ,  $p \leq 0.1$ ). The same applied for product quality ( $M_{\text{sensory}} = 8.519$ ,  $M_{\text{symbolic}} = 9.224$ ,  $p \leq 0.05$ ), attitude towards the product ( $M_{\text{sensory}} = 3.722$  vs.  $M_{\text{symbolic}} = 4.145$ ,  $p \leq 0.1$ ) and purchase intention ( $M_{\text{sensory}} = 3.722$  vs.  $M_{\text{symbolic}} = 4.091$ ,  $p \leq 0.1$ ).

Insert Table 4 about here.

## **Discussion and conclusions**

### *Discussion of the results*

The two presented studies provide new insights into the effectiveness of advertising design for food products. Study 1, which focused on advertising text, shows that the perception of the strawberries was not significantly different regardless of whether the sensory, functional or symbolic advertising messages were provided. However, in terms of the descriptive statistics, in all three text conditions, the test persons were convinced about the product. Regarding product experience, the mean evaluation of the strawberries was in the middle range. For the other four outcome variables (gustatory perception, product quality, attitude and purchase intention), the means were all clearly in the field of agreement. Hence, it appears that all three product design dimensions (sensory, functional or symbolic) are important in the context of food products and that it makes no crucial difference which type of product benefits in

particular are emphasized. Hence, no single dimension comes to the foreground. This finding applies to the case when only text is considered.

However, because a picture in an advertisement can change the consumer's perception, a further study that included a product picture next to the three text conditions was performed. In contrast to Study 1, Study 2 showed significant differences between the groups. In combination with the picture, the sensory and symbolic texts now produced significantly different product evaluations for all five outcome variables. In the case of gustatory perception, the analysis even found an additional significant difference between the sensory and functional text. In terms of the descriptive statistics, it was generally evident that the sensory text scored worse than both the functional and symbolic text. Except for gustatory perception (in which the functional text performed slightly better than the symbolic text), the symbolic text consistently led to the best product evaluation. Hence, when a picture is added, it makes a notable difference concerning which product design dimension the accompanying text appeals to. The picture itself already provides information about the product and thus partially forms the consumer's perception (Steenkamp, 1990). In the present case of the food product, the picture particularly appeals to the sensory dimension because it directly displays sensory attributes (e.g., red colour and firm shape) or indicates them (e.g., fruity scent and fresh taste). The sensory advertising text only confirms the impressions evoked by the picture, which makes it less informative from a consumer perspective and consequently less effective. Thus, an effect of mutual enhancement was not found. Concerning the functional dimension, the picture provides only a partial idea of the features (e.g., of quality but not of nutritional values). This result explains why functional advertising text performs better. Referring to the symbolic dimension, the picture provides no information about the symbolic product benefits (e.g., organic farming). Consequently, symbolic advertising text works best. These findings are also in line with assumptions from former literature. Jaeger and MacFie (2001) stated that

advertising texts and images may provide different information, which nevertheless should fit together and thus further strengthen each other in order to have a stronger positive influence on the consumer. This effect is grounded in consumers' tendency to reduce uncertainty in their buying decisions. Consumers generally prefer decision-making situations where they can feel certain about the expected value of the decision outcome. Relevant decision information can therefore help to reduce uncertainties with regard to the expected product benefits (Dodds *et al.*, 1991; Urbany *et al.*, 1989).

### *Conclusion*

The aim of this paper was to determine whether there are significant differences among sensory, functional and symbolic advertising designs with regard to food product evaluation. When considering text as the only advertising element (Study 1), the findings show no significant differences among the three groups. Because the product evaluation was generally positive, all three product design dimensions were found to be important in the case of food products. When a picture of the product was added to the advertisement (Study 2), however, significant differences were found among the three text conditions. More precisely, the data analysis indicated that the effectiveness of the advertisement increases with the complementarity of the two advertising elements, the text and the picture. Accordingly, alongside the primarily sensory picture, the symbolic text providing the most new information led to the best evaluation of the food product, whereas sensory text that was redundant to the picture scored the worst. To conclude, an intelligent combination of a picture and text is essential to optimize the effectiveness of food product ads. In marketing practice, a visual impression of the product is frequently present. Therefore, the findings emphasize the importance for marketers to be aware of the messages that non-textual cues transfer to the consumer. Based on this knowledge, it is possible for marketers to use advertising text

effectively to provide consumers with additional information about product benefits. In addition, pictorial information is much easier to process than textual information. Hence, the integration of a product picture is a valuable means of efficiently communicating further relevant information about the product that may be crucial to the consumer decision process. Through this approach, firms can improve consumer perception in terms of the expected taste, the perceived product experience and quality and the overall attitude towards the product. Finally, consumers will likely show much stronger intentions to purchase the product, which ultimately contributes to market success.

### *Theoretical implications*

This research contributes in several ways to the existing literature. The results show that for food products, all of the three investigated product design dimensions (i.e., sensory, functional and symbolic) are of high relevance in consumers' decision process. Therefore, the findings emphasize the importance of considering the three product design dimensions when analysing product value perception in the context of food products (e.g., Homburg *et al.*, 2015). Furthermore, this paper adds new insights to existing research on food advertisements (e.g., Kareklas *et al.*, 2014; Parker, 2003; Schifferstein *et al.*, 2013; Theocharous, 2015; van Kleef *et al.*, 2005; Vlachvei *et al.*, 2009; Zandstra *et al.*, 2017). In particular, the findings extend the current literature on the use of texts and images in advertisements (e.g., Jaeger and Macfie, 2000; McQuarrie and Mick, 1999; Pieters and Wedel, 2004) by taking into account the interaction between these two elements. The results indicate that when only text is included in the advertisement, there is no difference in product evaluation depending on the product design dimension emphasized by the advertisement. When a product picture is added, however, there actually is a significant difference in product evaluation depending on which product design dimension the accompanying text appeals to. Thus, the findings also relate to consumers' value

perceptions under uncertainty (Dodds *et al.*, 1991; Urbany *et al.*, 1989). The more relevant the information is provided by the two different advertising elements (text and image), the more effective the influence on product evaluation is. When the product benefits indicated by the picture are confirmed only by text, such an advertisement as a whole is less effective than an advertisement with complementary elements. In contrast to the possible considerations in the field of (multi)sensory marketing, there is no effect of mutual enhancement in the current context (Lwin *et al.*, 2010). Instead, the reduction in uncertainty seems to be the main driver in this case.

### *Managerial implications*

The results provide some interesting managerial implications. First, as the product evaluations for all three texts (without picture) were rated equally high, it appears to be primarily important to communicate product benefits in some way. For food products, sensory, functional and symbolic product benefits are all important. Thus, firms must generally highlight product benefits so that consumers can feel confident about making an intelligent decision in the marketplace in favour of the product (Resnik and Stern, 1977). In the context of strawberries, it appears to make no crucial difference whether sensory, functional or symbolic product benefits are especially emphasized when the advertisement consists solely of text. Furthermore, when food firms want to use more elements than just text in advertising – for example, a product picture – the information given in the text needs to be carefully selected. Advertisements are most effective when the advertising elements differ in the information they provide; the text should provide additional positive information that goes beyond the product presentation of the picture. In fact, more information on the different product benefits reduces consumers' uncertainty, improves their product evaluations and encourages them to make a decision in favour of the product (Dodds *et al.*, 1991; Urbany *et al.*, 1989). In summary, for the

effective application of food product ads, the two elements of text and pictures may be combined in a complementary rather than mutually enhancing way.

### *Limitations and future research*

This paper has study limitations that provide interesting possibilities for future research. First, the paper focused on the food industry and used strawberries as the specific product studied. Therefore, it would be insightful to examine the relationships for other food products and sectors. Moreover, the paper considered text and pictures as key advertising elements. Notably, other advertising elements (e.g., brand logos) can also have a crucial influence on consumer perception. Hence, subsequent studies may analyse the effectiveness of further combinations with diverse advertising elements to extend the knowledge regarding powerful advertising design. In addition, the picture used in the second study was a simple photo of the product. Examining the effectiveness of other picture types (e.g., enhanced by different cues or showing a situation with happy people eating the product or a friendly farmer in the fields) per se and in combination with the different advertising texts may be an interesting research opportunity for future studies. When investigating the perception of pictures in more detail, the subconscious mind comes to the foreground. In contrast to the processing of text, which often involves significant mental effort, the processing of pictures is primarily automated and unconscious (Mueller *et al.*, 2010). As a consequence, in addition to direct measures, future studies could also incorporate indirect measures to capture the consumer's unconscious perception (e.g., reaction time measurement and electroencephalography) and hence to gain an even better understanding of the processing of advertisements. Finally, the data analysis was limited to group comparisons using one-way ANOVAs. To examine the effect of advertising design on product evaluation, the application of other statistical analysis methods (e.g.,

structural equation modelling to investigate causal relationships between the attitude towards the advertisement and product-related outcomes) may provide further interesting results.

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## Tables

**Table 1: Demographic profile of the sample (Study 1)**

<b>Variable</b>	<b>Characteristics</b>	<b>n</b>	<b>%</b>
Age	17 – 20 years	48	30.6
	21 – 30 years	68	43.3
	31 – 61 years	41	26.1
Gender	female	74	47.1
	male	82	52.2
	no answer	1	0.6
Marital status	single	120	76.4
	married	28	17.8
	divorced	7	4.5
	widowed	2	1.3
Education	pupil	2	1.3
	junior high school diploma	12	7.6
	senior high school diploma	87	55.4
	university degree	56	35.7
Occupation	scholar	2	1.3
	trainee	1	0.6
	student	97	61.8
	full-time employee	48	30.6
	part-time employee	5	3.2
	retired	2	1.3
	unemployed	2	1.3
Income	very low income (< 1000 €)	29	18.5
	low income (1000 – 2000 €)	26	16.6
	middle income (2000 – 3000 €)	26	16.6
	high income (3000 – 4000 €)	19	12.1
	very high income (> 4000 €)	32	20.4
	no answer	25	15.9
<b>Total sample size</b>		<b>157</b>	<b>100.0</b>

**Table 2: Results of the one-way ANOVAs testing the effects of advertising content (sensory, functional and symbolic) on food product evaluation (Study 1)**

<b>Dependent Variables</b>	<b>Means (standard deviations)</b>			<b>F</b>	<b>p</b>
	<b>Sensory (n = 51)</b>	<b>Functional (n = 54)</b>	<b>Symbolic (n = 52)</b>		
Gustatory perception	4.129 (0.942)	4.252 (0.692)	4.208 (0.731)	0.318	0.728
Product experience	2.995 (0.846)	2.982 (0.934)	2.928 (0.903)	0.082	0.922
Product quality	8.726 (1.591)	8.469 (1.699)	8.968 (1.350)	1.363	0.259
Attitude	4.137 (0.980)	4.074 (0.908)	4.096 (0.891)	0.062	0.939
Purchase intention	4.039 (1.095)	4.037 (1.027)	4.096 (0.891)	0.058	0.944

**Table 3: Demographic profile of the sample (Study 2)**

<b>Variable</b>	<b>Characteristics</b>	<b>n</b>	<b>%</b>
Age	16 – 20 years	61	37.0
	21 – 30 years	69	41.8
	31 – 79 years	35	21.2
Gender	female	76	46.1
	male	88	53.3
	no answer	1	0.6
Marital status	single	138	83.6
	married	21	12.7
	divorced	5	3.0
	widowed	1	0.6
Education	pupil	6	3.6
	junior high school diploma	15	9.1
	senior high school diploma	98	59.4
	university degree	45	27.3
	no degree	1	0.6
Occupation	scholar	7	4.2
	trainee	3	1.8
	student	102	61.8
	full-time employee	40	24.2
	part-time employee	4	2.4
	retired	5	3.0
	unemployed	2	1.2
	housewife/househusband	2	1.2
Income	very low income (< 1000 €)	38	23.0
	low income (1000 – 2000 €)	23	13.9
	middle income (2000 – 3000 €)	25	15.2
	high income (3000 – 4000 €)	21	12.7
	very high income (> 4000 €)	31	18.8
	no answer	27	16.4
<b>Total sample size</b>		<b>165</b>	<b>100.0</b>




**Table 4: Results of the one-way ANOVAs testing the effects of advertising content (sensory, functional and symbolic) on food product evaluation (Study 2)**

Dependent Variables	Means (standard deviations)			F	p
	Sensory (n = 54)	Functional (n = 56)	Symbolic (n = 55)		
Gustatory perception	3.878 (0.870) <sup>a,b</sup>	4.257 (0.649) <sup>b</sup>	4.240 (0.586) <sup>a</sup>	4.956	0.008
Product experience	2.667 (0.920) <sup>c</sup>	2.839 (0.892)	3.068 (0.823) <sup>c</sup>	2.863	0.060
Product quality	8.519 (1.500) <sup>d</sup>	8.708 (1.647)	9.224 (1.267) <sup>d</sup>	3.329	0.038
Attitude	3.722 (1.071) <sup>e</sup>	4.036 (0.808)	4.145 (0.803) <sup>e</sup>	3.232	0.042
Purchase intention	3.722 (0.940) <sup>f</sup>	3.929 (0.871)	4.091 (0.776) <sup>f</sup>	2.488	0.086

**Note:** Same letters (a, b, c, d, e, f) indicate significantly different means for that dependent variable based on Scheffé post hoc tests. For gustatory perception and product quality, the differences are significant at the  $p < 0.05$  level (a:  $p = 0.031$ ; b:  $p = 0.022$ ; d:  $p = 0.048$ ). For product experience, attitude and purchase intention, the differences are significant at the  $p < 0.1$  level (c:  $p = 0.061$ ; e:  $p = 0.052$ ; f:  $p = 0.087$ ).

## Figures

**Figure 1: Advertisement with sensory (top left), functional (top right), and symbolic (bottom) text**

<p><b>Probieren Sie unsere leckeren Erdbeeren!</b></p> <p>Sie sind sehr saftig, haben ein süßes Aroma, sind von kräftig roter Farbe und verströmen einen fruchtigen Duft.</p> 	<p><b>Probieren Sie unsere hochwertigen Erdbeeren!</b></p> <p>Sie sind von bester Qualität, bestechen durch einen guten Preis, sind reich an Nährstoffen und haben viele Vitamine.</p> 
<p><b>Probieren Sie unsere Bio-Erdbeeren!</b></p> <p>Sie sind 100 % natürlich, haben eine regionale Herkunft, sind frisch vom Land-Bauern geerntet und stammen aus nachhaltigem Anbau.</p> 	

## **Evidence of Co-Authorship and Definition of Responsibilities**

The present research papers were jointly developed in co-authorship. All of the content is based on a collective and collaborative elaboration, whereby the following responsibilities have been defined within the respective modules:

### **Module 1: Development and Validation of a Practical-Oriented Measurement Concept of Customer Experience**

Responsibilities of *“The customer service experience scale (CSES): A first attempt towards a formative and practical-oriented measurement concept of customer service experience”*: Franziska Labenz: Introduction, literature review, development of the customer service experience scale (CSES), discussion; Klaus-Peter Wiedmann: Supervision.

### **Module 2: Investigation of Drivers and Outcomes of Customer Experience**

Responsibilities of *“Soothe your senses: A multisensory approach to customer experience management and value creation in luxury tourism”*: Klaus-Peter Wiedmann: Supervision; Franziska Labenz: Theoretical background (they will remember how you made them feel – creating memorable customer experiences); Janina Haase: Theoretical background (appeal to all senses – multisensory communication in luxury tourism); Nadine Hennigs: Introduction, theoretical background (luxury tourism – from decadence to exclusive experiences), conceptualization (a value-based perspective on multisensory customer experience management), conclusion and outlook.

Responsibilities of *“The power of experiential marketing: Exploring the causal relationships among multisensory marketing, brand experience, customer perceived value and brand strength”*: Klaus-Peter Wiedmann: Supervision; Franziska Labenz: Introduction, conceptual framework (overview of the conceptual framework developed, brand experience and customer perceived value), methodology, results and discussion (structural equation modeling), discussion of the confirmed conceptual model, conclusion; Janina Haase: Conceptual framework (multisensory marketing, brand experience and customer perceived value), results and discussion (two-way analysis of variance); Nadine Hennigs: Conceptual framework (customer perceived value and brand strength).

Responsibilities of *“Effects of consumer sensory perception on brand performance”*: Janina Haase: Conceptual model and the development of hypotheses (H1-H3), measurement, findings, discussion of the results; Klaus-Peter Wiedmann: Supervision; Franziska Labenz: Introduction, conceptual model and the development of hypotheses (H4-H8), data collection and sample, data analysis, managerial implications, limitations and future research, conclusion.

Responsibilities of *“Sensory stimuli in print advertisement – Analyzing the effects on selected performance indicators”*: Franziska Labenz: Theoretical background and hypothesis development (H2b, H3b, H5a, H5b, and H6), methodology, discussion; Klaus-Peter Wiedmann: Supervision; Jannick Bettels: Introduction, theoretical background and hypothesis development (H2a, H3a, H4a, H4b, and H4c), conclusion and outlook; Janina Haase: Theoretical background and hypothesis development (H1), findings.

Responsibilities of *“How to best promote my product? Comparing the effectiveness of sensory, functional and symbolic advertising content in food marketing”*: Janina Haase: Introduction, results (Study 2), discussion of the results, conclusion, limitations and future research; Klaus-Peter Wiedmann: Supervision; Jannick Bettels: Theoretical background, theoretical implications; Franziska Labenz: Methodology, results (Study 1), managerial implications.

## Further Publications

Hennigs, N., Jung, J., Schmidt, S., Karampournioti, E., Wiedmann, K.-P., & **Labenz, F.** (2017). Sustainability excellence and brand experience in the cruise industry: a cross-cultural comparison. *Luxury Research Journal*, 1 (3), 240-259.

Hennigs, N., Klarmann, C., & **Labenz, F.** (2015). *The devil buys (fake) prada: Luxury consumption on the continuum between sustainability and counterfeits*; in: M.A. Gardetti and S.S. Muthu (eds.), *Handbook of Sustainable Luxury Textiles and Fashion, Environmental Footprints and Eco-design of Products and Processes*, Springer Science+Business Media Singapore 2016, 99-120.

Hennigs, N., Schmidt, S., **Labenz, F.**, & Karampournioti, E. (2015). The spirit of cruising the ocean: Customer experiences and value orientation in luxury tourism. Paper presented at the *Global Fashion Management Conference, Florence, Italy*, June 25-28, 2015.

Hennigs, N., Schmidt, S., Wiedmann, K.-P., Karampournioti, E., & **Labenz, F.** (2017). Measuring brand performance in the cruise industry: brand experiences and sustainability orientation as basis for value creation. *International Journal of Services Technology and Management*, 23 (3), 189-203.

Hennigs, N., Schmidt, S., Wiedmann, K.-P., **Labenz, F.**, & Karampournioti, E. (2015). The greener wave of life: Brand experiences and sustainability orientation in the cruise industry. Paper presented at the *AMA Summer Marketing Educators' Conference, IL*, August 14-16, 2015.

Hennigs, N., Wiedmann, K.-P., **Labenz, F.**, Jung, J., & Hwang, C. S. (2016). The temptation of the forbidden: The demand for counterfeit luxury in eastern and western societies. *European Financial Review*, February – March, 2016.

König, J. C. L., Wiedmann, K.-P., Haase, J., **Labenz, F.**, & Hennigs, N. (2016). Designing the molecule of brand – Semiotic analysis towards unique luxury brand heritage. Paper presented at the *International Marketing Trends Congress, Venice, Italy*, January 21-23, 2016.

Wiedmann, K.-P., Haase, J., **Labenz, F.**, & Hennigs, N. (2018). Multisensory marketing in the luxury hotel industry: Effects on brand experience and customer perceived value. *Luxury Research Journal*, forthcoming.