

The Impact of Emotions Stimulated by Sensory Marketing Events on Customers' Perception of Prices in Price-Setting

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Research Article

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THE IMPACT OF EMOTIONS STIMULATED BY SENSORY MARKETING EVENTS ON CUSTOMERS' PERCEPTION OF PRICES IN PRICE-SETTING

1. Abstract. The article delves into the link between sensory marketing events and consumers' emotional responses to different price levels resulting from sensory stimulation. Explores the potential impact of sensory marketing events on the pricing process and analyzes the marketing, behavioral, and neuroscientific aspects that characterize this influence. Provides recommendations for selecting, developing, and applying marketing strategies based on the research findings presented. The study's scientific value lies in its conceptual description of pricing mechanisms based on consumers' emotional reactions to sensory influences in marketing events. The article contributes to advancing scientific and practical marketing, consumer neuroscience, and behavioral economics by structuring and systematizing assessment tools in sensory marketing. Ultimately, it aims to facilitate the implementation of more scientifically informed pricing strategies in marketing practice.

2. Keywords: sensory marketing, marketing events, sensory impact, prices, customers' perception, marketing tools, consumer behavior.

Jed: M31; D91

3. Introduction. Pricing decisions are the most important aspect of the realization of marketing strategy of modern business, because they directly affect profitability and success in a highly competitive market, where consumers have access to a wide range of alternative offers. At the same time, many important aspects of justification of the pricing process remain insufficiently scientifically substantiated and methodologies developed. For example, there are significant gaps in understanding how consumers' pricing decisions are influenced by their emotions, which is particularly important in terms of creating new potential marketing opportunities. On the one hand, these opportunities would improve pricing practices by understanding the mechanisms by which specific factors influence consumers' emotional perceptions of price levels and how they are presented (Wang et al., 2021; Xu et al., 2023; Riquelme & Román 2023). On the other hand, there is the potential to adjust consumer behavior, the ability of consumers to perceive certain price levels and purchase goods at these prices through the impact on their emotions and behavior (Drake et al., 2023; Biswas, 2019). This impact is possible through factors whose specificity, potential, effectiveness and causal relationships are well researched, measured, controlled and proven to be effective, which determines the research focus of this article.

There is a growing realization among scholars and practitioners that modern consumers are increasingly less likely to make purchase decisions based on rational calculations, habit and long-term brand loyalty alone (Gao & Lan 2020, Sowier-Kasprzyk 2022, Ramanankonenana & Randriamamonjy, 2023). More and more attention are being paid to the problem of the influence on consumer behavior of buyers' emotions (Kleef & Côté 2022, Chaudhuri & Vrontis 2023), some of which are direct or indirect reactions to the price of a product/service and correlate (and compete) with other factors in the purchase decision (Korhonen et al., 2018; Xu & Zheng, 2023; Yan & Wang, 2019). These emotions can be both positive and negative, and in this sense, they have a significant impact on price preferences and consumer choice.

It should be noted that despite the presence of a certain developed theoretical basis and empirical studies of the relationship between consumers' emotions, their emotionally motivated behavior and pricing, this topic remains insufficiently studied and requires detailed consideration, justification and development. The relevance of this research is also determined by a significant increase in competition in consumer markets and changes in the consumer psychological landscape. At the same time, the opportunities to study consumer behavior and

influence on it with the help of the latest innovative technical means and technologies, which are rapidly developing and becoming more and more accessible to researchers and marketing practitioners dealing with this issue, are also growing.

Understanding the motives and mechanisms of influence of sensory marketing events on the emotions and behavior of consumers will help companies to work more effectively on their marketing strategies, in particular - at the level of price decisions, to attract and retain customers, as well as to create personalized offers that cause an emotional reaction in consumers, positively affecting their purchasing decisions.

4. Literature Review. The study of key aspects of understanding and managing consumer behavior by influencing their emotions in the context of effective pricing is presented at this stage of development of world science is rather limited, revealing a significant potential for the development of this scientific and practical direction. Important in this regard is the attempt to identify certain regularities and trends in the general mass of scientific works, which allow to structure the existing scientific base and create a starting point for its further improvement.

In this context, it should be noted that the existing research on this topic is largely concentrated within such a modern and promising scientific direction as neuromarketing (Agarwal, 2014; Murphy et al., 2008; Sung et al., 2019). Thus, some studies, in particular (Sagha et al., 2022; Sung et al., 2019), point out that brain activity aimed at processing price information may differ depending on the emotional state of the consumer. Other studies suggest that psychophysiological indicators, such as responses to price changes, may be related to emotional reactions (Müller, 2010).

In general, the majority of scientists-adherents of this scientific direction, believe that the development of modern trade and the growth of competition require new approaches to pricing and customer behavior management, and neuromarketing is one of the most effective in this sense. Given this, it is important for them not only to experimentally set the "right" price, but also to understand how consumers perceive these prices using psychophysiological indicators, and how their emotions influence pricing decisions, as shown in the works (Herbes et al. 2015; Yu, 2019; Wang et al., 2021). It is in this context that neuromarketing has and is developing tools, approaches, methodologies, techniques, technologies, and technical solutions to identify and analyze the psychophysiological mechanisms underlying the pricing process and its impact on consumers (Agarwal, 2014; Sung et al., 2019). In the context of the problems of this article, the study and possible use of neuromarketing tools has the potential for a deeper and more detailed understanding of the motives and mechanisms of consumers' actions as a result of the impact on their senses, which will allow to create more personalized and effective price offers.

At the same time, changing consumer preferences and the increasing importance of the emotional perception of goods and services form the requirements for the development of a more personalized and effective price offer (Fan 2021). To some extent, the response to these challenges was the creation of the "Neuropricing" trend initiated by K.-M. Mueller (Herbes et al. 2015; Parikh et al., 2017; Müller et al., 2022) as a scientific and methodological basis for the formation of pricing decisions, which became the basis for the launch of the practical methodology and technology of the same trademark name (Müller, 2021).

Consumer neuroscience as the basis of "Neuropricing" is able to help in identifying and justifying effective pricing strategies to attract and retain customers. At the same time, this approach still needs to be supplemented with methodological means, techniques, tools and additional scientific and methodological substantiation. In particular, it is important in the context of the need to study the complex and, to a certain extent, interdisciplinary issues of price decision-making, taking into account the influence of sensory marketing tools on the

emotions and behavior of consumers (Koszembar-Wiklik 2019; Bhatia et al. 2021). Also, in particular, the work (Sung et al., 2019) highlights a number of problems of modern neuromarketing as a scientific and practical direction: perceptibly smaller sample sizes than those of traditional research in the behavioral sciences, which creates limitations on the reliability and generalizability of results; the need for qualitative processing of large amounts of data; the need to build inferences on a confident methodological basis; significant costs of conducting experiments and a whole set of ethical problems. In general, the presence of these problems and limitations does not suggest that neuromarketing is ineffective, but primarily draws attention to the need for a professional approach to the use of the complex potential of this scientific direction, including - in relation to the tasks of sensory marketing and pricing.

As an intermediate result of the state and prospects of using neuromarketing to solve the tasks set in the article, it should be noted that the development of technologies for registering human emotional reactions to sensory stimuli (Moreira et al., 2017; Yoganathan et al., 2019), along with the dynamic development of data processing and analysis technologies in real time (Chen et al., 2017; Singh et al., 2022; Hamacher & Buchkremer, 2022), opens up new opportunities for the formation and implementation of scientific and practical solutions in the field of neuromarketing, neuropricing and sensory marketing. In this sense, the tasks of sensor marketing can also act as the main tasks for which the approaches and scientific and practical solutions of neuromarketing are used. For example, the use of artificial intelligence and machine learning trained on neuromarketing models can help identify complex patterns of consumer behavior and make more accurate pricing predictions based on consumer reactions to sensory marketing events (Hamacher & Buchkremer, 2022). In doing so, and developments in sensory marketing and pricing based on research on consumer responses to sensory experiences can complement and enhance the research and practical solutions of neuromarketing and neuropricing (Singh et al., 2022).

To achieve the goals of evaluating sensory experiences and the impact of these experiences on consumer behavior, different approaches are used in current sensory marketing practice. For example, due to the rather simple organization, approaches based on field experiments, online surveys in which consumers have the opportunity to answer questions about their sensory experience are common (Brakus et al., 2009; Balaji & Raghavan, 2011; Zha et al. 2022).

In general, the system of evaluation of sensory experience and the impact of this experience, as sources (Chen & Wu, 2022; Cho et al., 2015; Drake et al., 2023) show, may include such elements as standardized evaluation methods, groups of experts and consumers, the use of biometric parameters, data analysis, etc. In addition, scholars (Korhonen et al., 2018; Williamson et al., 2022) emphasize the need to consider individual differences and the context in which sensory experiences are obtained. Contextual sensory experience can be identified by the context in which it occurs. For example, the same product may taste and smell differently depending on where, when, and with whom it is consumed (Ferreira 2019; Canniford et al. 2018; Dörtyol 2021).

Researchers also stress the importance of standardizing the evaluation to ensure objectivity and comparability of results (Bagozzi & Mozhde, 2022; Girard et al., 2019), for which it is suggested to use methodologies based on rating scales, such as the visual analog scale, where consumers can rate the sensory experience using a visual image. In addition, according to (Müller et al., 2022), the use of biometrics and data analysis can help to reveal more information about sensory experiences and their impact on consumer behavior.

In general, however, it should be stated that at present the research on the influence of emotionally motivated behavior on pricing is very limited. At the same time, the disclosure of the specifics of the impact on the emotions of the consumer through the impact on his senses (sensory impact) in the framework of the use of sensory marketing tools and, as a consequence,

the impact on his pricing behavior is presented in scientific works only fragmentarily, at the level of actualization and presentation of the general approach in the works (Sagha et al., 2022; Shahid et al., 2022; Xu et al., 2023). However, it is the sensory impact that largely determines those or other emotional reactions (both desirable from the point of view of the company-initiator of sensory interaction within the framework of marketing events, and undesirable), the ability to actualize and control which are taken into account in pricing. This can become a powerful and effective lever for the development of modern theory, methodology and practice of pricing, deepening the understanding and creating opportunities for predicting and planning what emotional reactions a certain level of prices and their presentation can cause.

The aim of the article – creation of a model for making pricing decisions taking into account the impact of sensory marketing events on the emotions and behavior of consumers. Achieving this goal at the theoretical and methodological level allows in practice to form scientifically sound recommendations for business to optimize pricing strategy based on feedback (questionnaires, surveys, etc.) and tracking of psychophysiological reactions (changes in behavior, patterns of emotions, etc.) of consumers to sensory stimuli.

The objectives of this research are:

- to analyze the empirical basis for pricing decisions based on certain consumer reactions to sensory marketing activities;
- to study the emotional reactions of consumers to sensory marketing events and changes in sensory intensity within these activities;
- to justify ways of reflecting the relationship between these emotional reactions, and the configuration of marketing pricing strategies supported by a reasonable set of sensory marketing events.

In this context, this study will not only complement the scientific aspect of pricing issues based on the consideration of emotional reactions to sensory exposure within marketing events. It will also provide practical benefits to businesses seeking to better understand their consumers and optimize their pricing strategies to achieve greater commercial success. Understanding the role of emotion in price perception can also help businesses to attract and retain customers more effectively, increase consumer loyalty to a company's brand and products, and increase market reach and profitability as a result. action.

5. Methodology. The theoretical and methodological perspectives of this paper, focus on behaviorism, which broadly focuses on observable behavior and the factors that influence it (Krishna, 2012; Lim, 2023). More specifically, on consumer reactions and behaviors due to the influence of sensory stimulation factor (controlled and orchestrated by the researcher). In this context, the positivist research paradigm assumes objective measurements (psychophysiological parameters, activity, behavioral patterns, etc.) to understand the influence of sensory stimuli within the system of sensory marketing events on the emotions and behavior of customers. At the same time, due to the complexity of the research environment and the organization of ideal conditions for experiments, it is advisable to focus on supplementing the available research apparatus (within the positivist paradigm) with tools that can be used in the research. In this context, it is appropriate for the study to utilize both surveys and interviews to explore how sensory-driven incentives affect consumer emotions, and further, how these consumer emotions affect the potential for pricing changes. In doing so, postpositivism does not reject the potential and usefulness of objective measurement, but focuses more on the pursuit of objectivity, recognizing the possible effects of bias (Deng & Ravichandran 2018).

While the positivist meta-theoretical position emphasizes quantitative methods as the only possible methods for proving hypotheses, the postpositivist position considers both quantitative and qualitative methods as valid approaches, which is a key point for the context

of this article and the issues reflected here (Zammito, 2004; Lim, 2023). Additionally, it is advisable to apply the interpretivist paradigm to interpret the results of the conducted experiments and relate them to the possibility of implementing specific pricing strategies (Simha 2019; Lim, 2023).

To achieve the goal set in the article, the author used a system of general scientific and special methods of research of processes and phenomena. In particular, based on a broad review of the basic concepts and tools of sensory marketing, neuromarketing, neuropraising, behavioral sciences and research in a number of other disciplines (Agarwal, 2014; Müller, 2021; Murphy et al., 2008; Sung et al., 2019), the article justifies the use of certain pricing strategies for a certain identified pattern of consumer response to sensory influence within the experimental framework proposed in the paper.

The influence of positive and negative emotions on pricing decisions will be examined and an attempt will be made to establish a link between consumers' emotional state and their willingness to purchase a product or service at a particular price. At the same time, the work is mainly conceptual and methodological and at this stage (formation of the model of using pricing strategies in certain conditions) does not contain experimental calculations and numerical substantiation of conclusions.

Rationale for the research model:

Stage 1 – "Sensory marketing tools - emotions". This stage of the research aims to analyze the relationship between sensory marketing tools and consumer emotions evoked by these tools. Experiments are justified in which consumers are exposed to sensory stimuli (such as scents, sounds or visual effects) and then their emotional reactions are measured using questionnaires and psychophysiological measurements.

Stage 2 – "Emotions - response to prices". The second stage of the study determines how positive or negative emotions caused by exposure to sensory marketing tools affect consumers in the price decision making process. Consumers are offered different price options under the influence of sensory stimuli and their reaction to these prices is measured, taking into account their emotional state (stimulated by specific sensory stimuli identified in the first stage as appropriate).

Stage 3 – "Price reaction (fixed or predictable) - pricing". In the last stage of the research, a model of pricing strategies is formed based on the results obtained in the previous stages. This stage involves forming a mechanism to link sensory exposure to specific pricing strategies to maintain and increase consumer interest in the company's goods/services and its brand. It also examines how consumers' reactions to prices (fixed or planned to be implemented) can influence the price setting process (align with costing, previous forecasts, plans, etc.)

The research involving these stages aims to identify the links between sensory marketing tools, consumers' emotions, their reactions to prices and pricing. Such a systematic methodology can be the basis for building a comprehensive research model that will allow understanding and managing the pricing and marketing processes at the enterprise (Fig. 1).

The ***overall goal*** of implementing this model is to create marketing and pricing strategies that take into account the emotional factor of consumers and contribute to improving business performance measured by profit growth and customer satisfaction.

The research approach and model of pricing strategies developed in this paper will help to better understand the relationship between sensory marketing, consumer emotions and the pricing process. The results obtained can be used to develop more effective, sensory-oriented (or stimulated at the level of sensory influence) marketing strategies aimed at activating the impact on the emotions of consumers with the help of sensory marketing tools to achieve commercial success of companies in the market.

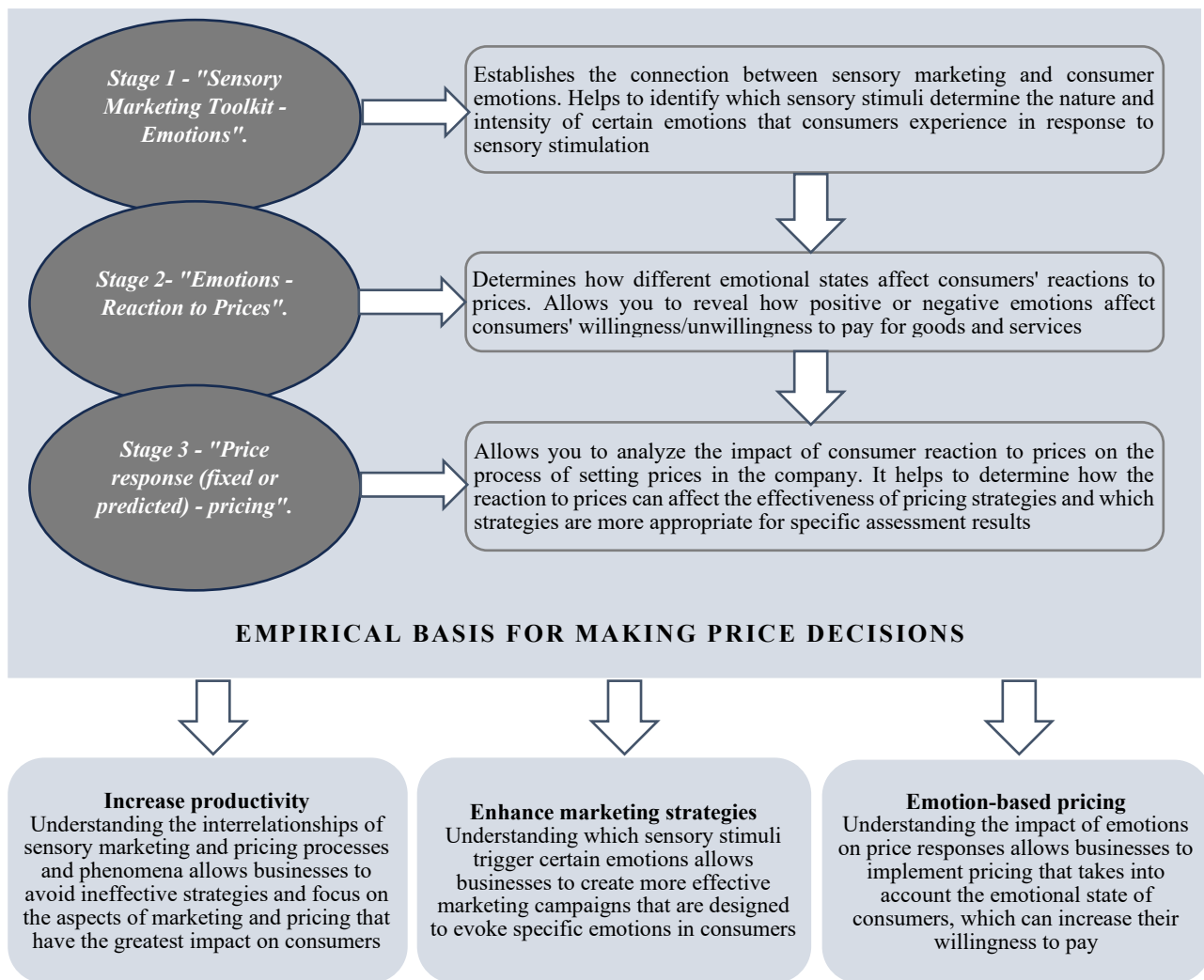


Figure 1. Model for company research on the interrelationship between sensory marketing tools, consumers' emotions and their reactions to prices
Source: developed by the author

The plan of experiments according to the presented research model is follows (Tab. 1).

Interpretation of results

Experiment 1.

Analysis of the data obtained as a result of the experiment will allow us to determine whether the implementation of specific measures of sensory marketing in a particular outlet is a statistically significant factor affecting the emotional response of consumers (Jang et al. 2021). If the experiment confirms the hypothesis proposed (see Table 1), it may indicate the influence of sensory marketing on consumers' emotional response.

Experiment 1, therefore, allows us to investigate the impact of sensory marketing on consumers' emotional responses and to obtain specific data that can be used to make business decisions. This information can be used by companies to further develop their marketing and pricing strategies.

Table 1

Description of the methodological framework of the experiments recommended in the research approach to investigate the relationship between sensory marketing tools, consumers' emotions and their reactions to prices

	<i>Experiment 1: The impact of sensory marketing on consumers' emotional responses</i>	<i>Experiment 2: Influence of emotions on price decision making</i>
1	2	3
<i>Hypothesis</i>	The use of specific sensory marketing stimuli of a certain intensity as part of marketing activities implemented in retail outlets affects the emotional response of customers	Changes in the emotional state of consumers caused by the influence of sensory marketing stimuli of a certain intensity within the framework of marketing events influence their perception of the price level for goods
<i>Object of study</i>	Emotional reactions of consumers who visit the outlet where the experiment is conducted and consider buying the goods that are sold there	Emotional reactions of consumers who visit the outlet where the experiment is conducted and consider buying the goods that are sold there
<i>Purpose</i>	Determine which specific sensory marketing stimuli and of what intensity within marketing activities (e.g., scents, sounds, or visual stimuli) influence consumers' emotional responses. Evaluate the extent of this influence.	To determine how specific sensory marketing stimuli of a certain intensity, positively influencing the emotions of buyers within the framework of marketing activities, affect the perception of potential buyers of different price levels. Evaluate the extent of this influence.
<i>Variable selection</i>	– <i>Independent variable</i>: the impact of specific sensory marketing stimuli of a certain intensity (application of fragrances, sound effects, visual stimuli, etc.) on customers at the point of sale. – <i>Dependent variable</i>: consumers' emotional reaction (changes in emotional state) to the impact of the independent variable (sensory stimuli)	– <i>Independent variable</i>: the emotional state of the buyer due to exposure to specific sensory marketing stimuli of a certain intensity. – <i>Dependent variable</i>: buyer's price decision making (including product selection, willingness to pay, etc.), in particular buyer's perception of a certain price level (assessed by survey or by tracking changes in psychophysiological responses)
<i>Basic parameters and procedure of the experiment</i>	<i>Identification of influencing factors</i>: for the experiment it is important to select specific sensory stimuli such as scents, sounds, lighting that will be introduced in the outlet as part of the marketing events. <i>Stages of the experiment (separated in time by equal intervals)</i>. For each tested sensory marketing measures (in the environment where sensory influence is planned to be implemented (stage 1) or implemented (stages 2-4) within the framework of these measures): 1) measurement of parameters of emotional reactions in the point of sale in which the proposed sensory influence measures are not implemented; 2) measurement of parameters of emotional reactions in the point of sale in which the proposed low-intensity sensory influence measures are implemented;	<i>Selection of marketing events</i>: marketing events are selected, in which, according to the results of Experiment 1, the sensory impact showed the most favorable effect on the emotional state of buyers-participants of the experiment. <i>Stages of the experiment (divided in time by equal intervals)</i>. For each selected measure of sensory marketing (in the environment where the sensory influence within these measures is planned to be realized (stage 1) or realized (stages 2-4)) is carried out: 1) measuring the parameters of reactions to the existing price level (average) in the point of sale in which the proposed measures of sensory influence are not realized; 2) measuring the parameters of reactions to the minimum possible based on economic feasibility price level in the point of sale in which the proposed measures of sensory influence are realized;

Table 1 (Continued)

1	2	3
	3) measurement of parameters of emotional reactions in the outlet, in which the proposed measures of sensory impact of medium intensity are implemented; 4) measurement of parameters of emotional reactions in the outlet, in which the proposed measures of sensory impact of high intensity are implemented. <i>Groups and sampling:</i> four groups (for each of the stages) of random visitors of the outlet within its current mode of operation are evaluated. When the same statistically reasonable number of consumers is reached and their reactions are assessed, data collection within each group (stage) is stopped. <i>Application of sensory marketing tools:</i> sensory stimuli, such as special scents, sounds or visuals, are installed in the experimental area of the store as part of specific experimental offer-events. <i>Data collection:</i> during the store visit, consumers are monitored and data on their emotional reactions are collected, for example through questionnaires or sensory devices to measure heart rate, blood pressure or other psychophysiological parameters	3) measuring the parameters of reactions to the existing price level (average) in the point of sale, in which the proposed measures of sensory impact are implemented; 4) measuring the parameters of reactions to the maximum permissible based on market conditions price level in the point of sale, in which the proposed measures of sensory impact are implemented. <i>Groups and sampling:</i> several groups (according to the number of selected events) of random visitors to a retail outlet within its current mode of operation are evaluated. When the same statistically valid number of consumers is reached and their reactions to prices are assessed, data collection within each group (stage) is stopped. <i>Application of sensory marketing tools:</i> various sensory-based methods are applied to change the emotional state of participants before making a price decision (in particular, those identified in Experiment 1). <i>Data collection:</i> participants answer questions and complete questionnaires regarding their pricing decision, such as how much they are willing to pay for the chosen product or service
<i>Expected result</i>	Obtaining information on which sensory stimuli in specific sensory marketing events elicit positive and negative emotions in consumers	Gaining insights into how emotions evoked by sensory marketing affect consumers' willingness to purchase a product at a particular price point
<i>Data analysis</i>	After data collection, an analysis is conducted to determine if there is a statistically significant difference in emotional response between Group 1 (control) and Groups 2-4 (experimental), as well as between experimental groups. Trends and patterns of change in emotional reactions of shoppers under the influence of sensory stimuli are highlighted	After data collection, an analysis is conducted to determine whether there is a statistically significant difference in the perception of different price levels and price decisions between Group 1 (without emotional stimulation) and Groups 2-4 (with emotional stimulation), as well as between Groups 2-4. Trends and patterns of change in buyers' price perception under the influence of emotional background due to sensory stimulation are highlighted

Source: developed by the author

It is important to consider that both the course and results of the experiment may be different for different sensory marketing tools, types and intensity of sensory exposure, and for different categories of consumers. It is also important to consider the ethical and transparent use of sensory marketing tools, as these practices can influence consumers without their informed consent. Ensuring ethical and legitimate use of sensory marketing tools is an important aspect of the experiment.

Experiment 2.

Data analysis will determine whether changes in emotional state due to sensory exposure in specific marketing activities affect consumers' pricing decisions.

If the experiment confirms the hypothesis and shows that changes in emotional state affect consumers' pricing decisions, this could have important implications for marketing pricing strategies, especially with regard to specific sensory stimuli associated with a particular product group or brand. Companies can focus more on creating positive emotional experiences in consumers, which can help implement more effective pricing decisions and increase sales.

Experiment 2 as a whole allows us to explore an important aspect of the relationship between emotions and pricing decisions and provides businesses with data to develop pricing strategies that aim to influence consumers' emotions through specifically organized (simulated) sensory stimuli.

If the results of the experiments are positive (confirming the proposed hypotheses), companies can consider implementing sensory marketing in their stores to improve the consumer experience and increase customer loyalty. In addition, pricing practices can be improved, given the confirmed willingness (not willingness) of customers to pay for goods and services that evoke positive emotions. Overall, the results of the experiments will allow businesses to better understand the impact of sensory marketing on consumers' pricing behavior and develop more effective marketing strategies to create positive emotional experiences for customers.

6. Results. Pricing and consumer emotions are important components of marketing strategies, and the use of sensory marketing tools can influence both of these components both directly and indirectly.

Sensory marketing is known to be able to create positive emotions (Fong et al., 2023; Jutta, 2023; Krishna et al., 2016) in consumers, for example, through pleasant scents, musical accompaniment, or pleasant visual experiences. Positive emotions, in turn, can make consumers more inclined to spend, and this can influence their pricing decisions. Sensory marketing in this context focuses on activating consumers' various sensory channels such as sight, hearing, touch, smell and taste (Fürst et al., 2021; Ranaweera et al., 2021; Trompeta et al., 2022). Stimulation through these perceptual channels using organized (simulated) tools, approaches and methods can elicit emotional responses, the identification, measurement and analysis of which is an important part of this study.

To illustrate the process of identification and interpretation of the results of the experiments justified in the article, we present conditional data on the evaluation of the effectiveness of sensory marketing tools implemented in a conditional experiment based on an automobile showroom. The experiment included the following practical solutions from the arsenal of sensory marketing modeled by the author:

A. The aroma of "natural leather interior of a new car" is spread in the car showroom with the help of aromatizers.

B. A car radio station with content (music, news, shows) typical for the time that the average driver spends on the road in the car interior is constantly playing in the car showroom.

C. Each visitor of the showroom, regardless of whether he made a purchase,

received from the company a souvenir of soft, pleasant to the touch material.

D. The inscriptions in the interior were realized in the form of neon ribbons with blue or lettuce illumination, similar to the dashboard of classic cars.

E. Small containers with small lollipops in the shape of a small car were placed in the car interior.

According to the order of Experiment 1, these practical solutions were implemented at each stage of the experiment with a certain intensity (Table 2).

Thus, an example of the result of the proposed experiment can be the following data (Table 3, Fig. 2), obtained on the basis of tracking, collecting and analyzing data on the emotional reactions of visitors to a car dealership (e.g., using questionnaires or sensor devices for measuring heart rate, blood pressure or other psychophysiological parameters).

Table 3

Average evaluation of emotional reactions of visitors to the use of sensory stimuli of certain intensity within the framework of marketing events (A-E), implemented in a retail outlet (example)

SM Event	Intensity			
	<i>Control</i>	<i>Level min.</i>	<i>Level mid.</i>	<i>Level max.</i>
A	0	0,5	1	-0,5
B	0	2	1	-1
C	0	2	2,5	3
D	0	1	0,5	-0,5
E	0	2	2,5	2,5

Source: calculations modeled by the author

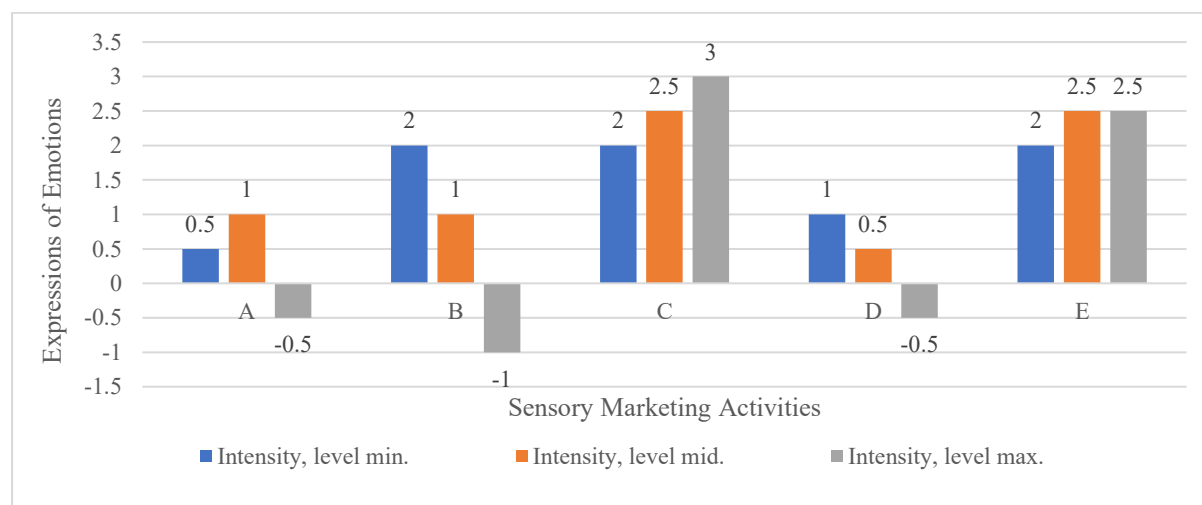


Fig. 2. Changes in emotional reactions of visitors to the use of sensory stimuli of a certain intensity within the framework of marketing events (A-E), implemented in a retail outlet (example)

Source: built by the author on the basis of modeled calculations

Thus, in the given example, on the basis of tracking, collecting and analyzing data on the emotional reaction of visitors to the car showroom, it was revealed that the most pronounced positive emotional reaction of buyers was caused by events C and E. In this case, in the case of event C (each visitor of the salon, regardless of whether he made a purchase, received from the company a souvenir of soft, pleasant to the touch material as a memento of the visit to the salon) it is appropriate to use the intensity of sensory stimulation at a medium and high level (soft keychain with the brand logo or, preferably - a small soft toy with the brand logo as a gift).

Table 2

Outline of Experiment 1 events with sensory intensity sharing

Events		Intensity of sensory impact of interventions			
		Control group (events are not implemented)	Minimum intensity	Average intensity	Maximum intensity
A	The scent of "natural new car interior leather" is spread in the car dealership with the help of fragrance dispensers	Not realized	Light flavor	Medium aroma	Strong (intrusive) fragrance
B	A car radio station is constantly playing in the car dealership with content typical of the time the average driver spends on the road in the interior of a car	Not realized	Silent sound (background)	Average sound volume	High volume (at conversation level)
C	Each visitor of the salon, regardless of whether he made a purchase, received from the company a souvenir made of soft, pleasant to the touch material as a memento of the visit to the salon	Not realized	A little soft smiley face toy-figurine	Soft keychain with the brand logo	Small soft toy with brand logo
D	The lettering in the interior was realized in the form of neon ribbons with blue or lettuce illumination, similar to the dashboard of classic cars	Not realized	Dim backlight brightness	Medium backlight brightness	Very bright backlight
E	Small containers of small candy in the shape of a small car were placed in the car showroom	Not realized	Container on manager's desk	The container is located at the entrance and on the manager's desk	The container is attached to a rack with information about each vehicle's specifications
Participants	Casual visitors to the outlet within its current mode of operation				
Duration of realization	When the same statistically reasonable number of consumers is reached and their reactions are assessed, data collection within each group (stage) is terminated.				

Source: developed by the author

In case of Event E, medium intensity stimulation will be appropriate (a container with lollipops is located at the entrance and on the manager's desk), as further increase in intensity will be costly, but will not lead to a tangible increase in emotional response.

Based on the results obtained, measures C and E were selected for use in subsequent studies of the influence of sensory-driven emotional reactions on price perception. For these measures, a price perception study was organized in the same car dealership in Experiment 2 for several groups of new visitors who had not previously participated in Experiment 1 (Table 4, Fig. 3):

Table 4

Averaged evaluation of emotional and sensory marketing events (C and E) of visitors' reactions to price changes of different levels (example)

SM Event	Price level			
	<i>Control</i>	<i>Min.</i>	<i>Mid.</i>	<i>Max.</i>
C (level max. Intensity)	0	2	0,5	0,1
E (level mid. Intensity)	0	0,5	0,1	-0,5

Source: calculations modeled by the author

- measuring parameters of reactions to the existing car price level (average) at a retail outlet where the proposed sensory interventions are not implemented;
- measuring the parameters of reactions to the lowest possible price level based on economic feasibility in the retail outlet where the proposed sensory measures are implemented;
- measuring parameters of reactions to the existing price level (average) in the outlet where the proposed sensory interventions are implemented;
- measuring parameters of reactions to the maximum allowable based on market conditions price level in the point of sale, where the proposed sensory impact measures are implemented.

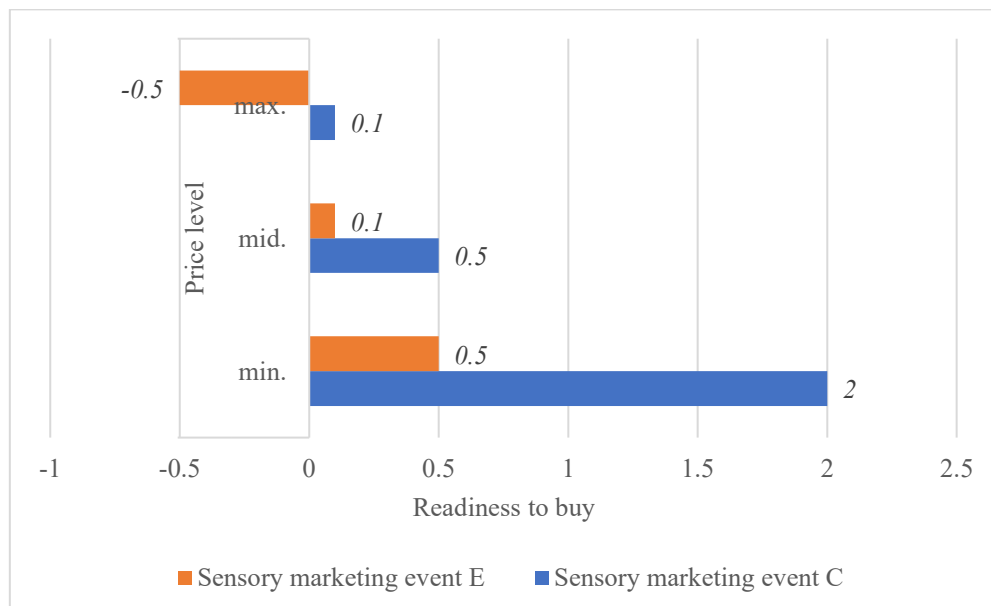


Figure 3. Changes in visitors' perception of prices, emotionally conditioned by sensory marketing events (example)

Source: built by the author on the basis of modeled calculations

Based on the data of Table 4 and Fig. 3. 3, it can be stated that under the influence of emotional stimulation with the help of specific sensory marketing measures implemented in the retail outlet, the perception of potential buyers of the price level of cars changes. For example, when stimulated with "event C" of maximum intensity, buyers perceive the current price 50% better than without stimulation and perceive a price reduction very well. In general, they are willing to consider buying even at a higher price, and perceive it as a whole slightly better than they had previously perceived the regular (average) price by buyers without sensory stimulation.

As for "measure E", if it is implemented, it is expected that sensory stimulated buyers will perceive the current price only slightly better in relation to how it is perceived by buyers normally. At the same time, they will perceive a price decrease quite well, as opposed to an increase (the probability of purchase in this case will decrease quite significantly). Thus, in this (modeled for the example) set of measures of sensory marketing, which could be implemented in the environment of the car dealership, it is most appropriate to use "event C", which will provide a better perception of prices and willingness to consider the possibility of buying even when prices are rising, and even more so when they are fixed at the usual level or decreasing. This will allow the car dealership to be more flexible in its pricing policy, utilizing the potential of sensory marketing to stimulate sales.

In this case, the application of emotionally oriented pricing strategy is actualized, due to the expressed positive reaction to the emotional rise in potential buyers, activated by a specific sensory marketing event. This strategy should be included in the arsenal of strategies, which it is expedient to apply in these or those conditions according to the results of tracking and interpretation of both the emotional background of buyers caused by sensory influence and their reaction on this background to price changes (actual or potential). This article proposes a methodological basis, a sequence of these actions, which can be useful for justification and selection of specific pricing strategies in specific conditions and supplemented with the necessary and available in these conditions tools for tracking, collecting and analyzing data on the emotional response of customers (for example, with the help of questionnaires or sensory devices for measuring heart rate, blood pressure or other psychophysiological parameters).

Thus, sensory experiences and responses in the experiments proposed in this paper can be assessed using various methods such as organoleptic evaluation, consumer panel, electroencephalography (EEG), functional magnetic resonance imaging (fMRI), etc. The use of biometric data such as heart rate, respiration rate, pulse rate, etc., can help assess the body's response to sensory experiences, which can also provide a more objective and meaningful assessment of sensory experiences and their impact on consumer behavior, particularly on the willingness of point-of-sale visitors to purchase a product at a particular price point. For example, eye-tracking technologies can be used to investigate what consumers pay attention to in retail outlets and how their emotional reactions and behavior change after what they see.

It is also important to take into account individual consumer characteristics such as age, gender, education, income and other factors that may influence their perceptions. For this purpose, cluster analysis methods can be used to divide consumers into groups with similar characteristics.

The collected data regarding the sensory experience at the point of sale and its influence on emotions can be processed and analyzed using statistical methods such as cluster analysis, factor analysis, regression analysis, etc., which will help to identify the links between consumers' sensory experience, their emotions and further, emotionally driven behavior (Farida & Rasyid 2023).

Table 5 presents possible pricing strategies that can be chosen taking into account the influence of the emotional background caused by sensory stimulation on consumer behavior.

Table 5

A set of pricing strategies that can be used taking into account the influence on consumer behavior of the emotional background caused by sensory stimulation

№	Experimental results to investigate the relationship between sensory marketing tools, consumers' emotions and their reactions to prices		Recommended pricing strategy
	The nature of the results obtained	Interpretation of the results obtained	
1	Research shows that the positive emotions evoked by sensory marketing tools increase consumers' willingness to purchase a product at a higher price point	Companies can consider raising prices and use sensory marketing to create a positive emotional backdrop	Emotionally oriented pricing strategy
2	Research shows that certain sensory marketing tools help activate positive emotions	Companies can take this into account when designing packages that include additional sensory experiences and charge higher prices for it	Strategy for introducing emotionally mediated service packages
3	Research identifies subgroups of consumers with different emotional reactions to specific elements (approaches, activities, solutions, etc.) from the sensory marketing toolkit	Companies can develop customized pricing strategies for specific segments (consumers, product groups, etc.) of the consumer marketplace	Market segmentation strategy by emotional response
4	Research shows that consumers' reactions to prices can vary depending on their emotions	Companies can develop adaptive (dynamic) pricing strategies that take into account changes in consumers' emotional state and respond to it through price changes	Adaptive pricing strategy
5	Research shows that negative consumer emotions may require price reductions	Companies can use promotions and discounts to reinforce positive customer experiences and offset negative emotions	Strategy for implementing emotionally mediated discounts

Source: developed by the author.

These strategies are conditional and can be adapted to the specific market situation and the data obtained in the course of research. The flexibility and ability of the enterprise to adapt pricing strategies on the basis of real data on the influence of sensory marketing on the emotions of consumers and indirectly (through emotions) – on the perception of prices are important, which contributes to increasing profitability and achieving overall success in the market of companies that implement measures of sensory marketing. In this case, the indicators that can characterize the increase in the efficiency of these companies due to a better understanding and ability to model the relationship between the tools of sensory marketing, the emotions of consumers, their reaction to prices, can be the following:

- increase in total sales of goods or services after the implementation of new pricing solutions, taking into account the impact of sensory marketing activities on consumer emotions and behavior;
- the level and changes in consumers' "average check," which may be the result of positive emotions and greater willingness to pay;
- loyalty and repeat purchase scores that can be compared before and after the implementation of new pricing solutions, taking into account the impact of sensory

marketing activities on consumer emotions and behavior.

7. Discussion. The study of the works of contemporary researchers on the issues raised in this article confirms the possibility of using neuromarketing, customer behavior management and sensory marketing to improve the effectiveness of pricing based on understanding how consumers respond to sensory stimulation (Moreira et al., 2017; Yoganathan et al., 2019). In this context, this study is an attempt to structure and organize the knowledge and approaches that may be useful in addressing the research problem at hand. The result is the formation of a certain order/sequence of evaluation experiments, based on which a clearer picture of the meaning and role of specific sensory marketing tools in shaping a certain, emotionally driven behavioral pattern regarding price perception is formed.

Together with the way in which the results are interpreted and the recommendations for the use of specific pricing strategies based on these results, these experiments provide a coherent evaluation model that helps to understand how sensory marketing affects consumers' emotions, how these emotions influence their response to prices, and ultimately how this response conditions the pricing process.

Thus, as a scientific study aimed at understanding the emotional dimension of pricing, the results of this study have the potential to enrich existing theories and concepts in the field of neuromarketing and neurobiology, in particular neuropricing. In this sense, this study has the potential to enrich existing theories and concepts in the field of neuromarketing and neurobiology, in particular neuropricing. However, in certain aspects, it can also be the subject of debate and scientific controversy.

Thus, although the approaches and methodological solutions proposed in this article can complement marketing methodology, especially where it is important to measure the impact of sensory marketing on consumers. The use of these scientific solutions can also confirm that the creation of positive sensory experiences can lead to an increase in consumers' emotional engagement with brands and products and improve their perception of price levels if they are increased (Hulten et al., 2011; Krupka, 2023). At the same time, the proposed approaches are to some extent in conflict with standard pricing models, such as those outlined in (et al., 2023; Zhang et al., 2022). Indeed, most of the existing pricing models, in practice for many decades, do not take into account the emotional aspect. They either ignore it completely (Vargo & Lusch, 2004) or consider it uncontrollable, difficult to measure, insufficiently influential in the medium and long term (Zhang et al., 2022). In this regard, the results of this paper may contradict these models by showing that emotions can influence pricing decisions. Therefore, the data, traditional models will require adjustment to account for these results.

Another limitation of the scientific solutions proposed in this paper should also be taken into account, which is that in the case of sensory marketing events, the context and specificity of the implementation location or audience plays a significant role. For example, sensory marketing events implemented in a car dealership may be completely useless in terms of influencing the emotions or behaviors of consumers in a grocery store, or even have the opposite result (irritation, anger, boredom, instead of joy, emotional uplift as expected). This raises significant challenges regarding the universalization, standardization of approaches and scientific solutions to the sensory marketing, emotion influence on pricing decisions outlined in this paper.

Such standardization and generalization is possible only up to a certain level, which may concern algorithms of actions, but it is ineffective in relation to the choice of specific tools in specific conditions to work with specific audiences. In this sense, both general approaches and pricing strategies should be more adaptive, flexible and assume the possibility of changing and reacting to the situation. At the same time, this specificity can lead to additional discussion questions regarding the objectivity of research and measurement, the possibility of their implementation in real practical conditions at the mass level, as well as the resource intensity

(cost) of organizing such research and measurement.

It should be noted that even though the practical implementation of the results of this study, especially at the mass level, may be difficult due to limited access to resources, technologies, technical solutions, and neurophysiological data, at the same time, the information derived from the suggestions of this article may become valuable for the marketing practices of modern companies, even at the conceptual level. Marketers can model certain evaluation processes based on available resources while gaining important information on how to improve their company's sensory marketing and pricing strategies.

Despite certain difficulties and limitations in data collection, this study opens the way for further research and practice development in the field of sensory marketing, neuromarketing and neuropricing. Indeed, the development of the scientific ideas of this article, their testing in practice, supplementation and deepening will allow us to expand the horizons of perception of sensory marketing from a direction that studies the impact on the senses of consumers to a structured and grounded scientific knowledge capable of systematically presenting the processes of influence on consumer behavior, pricing and other areas, based not only on the specifics of sensory perception, but also on the deeper parameters of neurobiology, human experience, memory.

8. Conclusions. On the basis of the experimental base proposed in the article it is explained how the study of the links "sensory marketing tools - emotions", "emotions caused by sensory stimulation - reaction to prices" and "emotionally stimulated reaction to prices - pricing" will improve the effectiveness of marketing and pricing, as well as how this effectiveness can be measured and interpreted.

Overall, this study makes an important contribution to understanding, and more importantly, actually measuring how sensory stimulus-driven emotions influence consumers' decisions and their reactions to prices. In this regard, the main scientific value of this paper is that this study reveals new aspects of marketing science, especially in the context of sensory marketing and its impact on consumers, further bringing into focus the importance of understanding the psychological and neurobiological aspects of consumer behavior.

The scientific and practical value of the article also lies in the attempt to structure and systematize the assessment tools in the field of sensor marketing; to create a procedure for organizing the assessment process and the formation of specific decisions on the results of such an assessment, in particular, regarding the application of certain pricing strategies; the formation of methodological opportunities to improve the quality (reliability, completeness, multi-criteria) of the assessment of sensor marketing events on the basis of clear instructions for obtaining reliable (Satti et al. 2021), necessary, and accurate information on the results of the assessment; and the development of a methodological framework for the assessment of sensor marketing events.

One of the main features of the study, reflecting its originality, is the attempt to form a sequence of actions aimed at objective measurement of consumers' emotional reactions to touch marketing and prices. This sequence can be supplemented with specific measurement techniques based on the availability of specific technical, technological and organizational solutions and conditions in a specific environment relative to a specific audience. This would further enrich this paper and define the prospects for further research based on the scientific and practical solutions of this paper.

At the same time, the prospects for further research in this direction are determined by the possibilities of implementing the proposed approach in practice, which requires, first of all, complex organizational and management efforts. At the same time, it is undoubtedly important to further develop and systematize, test and develop ways of measurement, criteria and indicators of evaluation in the sphere of sensor marketing, including on the basis of the results

obtained in the article. Also important is the formation of effective ways to automate the evaluation process, including using the potential of information technologies.

Declarations

Clinical trial number: not applicable.

References.

Agarwal S (2014) Neuromarketing in Action: How to Talk and Sell to the Brain. *Journal of Consumer Marketing* 31(5):404-405.

Bagozzi RP, Mozhde K (2022) How and When Brand Coolness Transforms Product Quality Judgments into Positive Word of Mouth and Intentions to Buy/Use. *Journal of Marketing Theory and Practice* 31 (4): 383–402.

Balaji MS, Raghavan SJha (2011) Role of tactile and visual inputs in product evaluation: a multisensory perspective. *Asia Pacific Journal of Marketing and Logistics* 23(4):513–530

Bhatia R, Garg R, Chhikara R, Kataria A, Talwar V (2021) Sensory Marketing – A Review and Research Agenda. *Academy of Marketing Studies Journal* 25(4):1–30.

Biswas D (2019) Sensory aspects of retailing: theoretical and practical implications. *Journal of Retailing* 95(4):111–115.

Brakus JJ, Schmitt BH, Zarantonello L (2009) Brand experience: what is it? How is it measured? Does it affect loyalty? *J Market* 73:52–68

Canniford R, Riach K, Hill T (2018) Nosenography: How smell constitutes meaning, identity, and temporal experience in spatial assemblages. *Marketing Theory* 18(2):234–248.

Chaudhuri R, Vrontis D (2023) Masstige marketing: An empirical study of consumer perception and product attributes with moderating role of status, emotion, and pride. *Journal of Business Research* 155:113401.

Chen AH, Wu RY (2022) Mediating effect of brand image and satisfaction on loyalty through experiential marketing: A case study of a sugar heritage destination. *Sustainability* 14 (12):7122

Chen ZL, Hall NG, Kellerer H (2017) Dynamic pricing to minimize maximum regret. *Prod Oper Manag* 26:47–63.

Cho E, Fiore AM, Russell DW (2015) Validation of a fashion brand image scale capturing cognitive, sensory, and affective associations: testing its role in an extended brand equity model. *Psychol Market* 32:28–48

Deng C, Ravichandran T (2018) Positivity bias: Effects of discrete emotions on review helpfulness. In *Proceedings of the 24th Americas Conference on Information Systems*.

Dörtyol İT. (2021) Do consumers need to smell? Scale development and validation. *Journal of Sensory Studies* Vol. 36 No. 2:e12630

Drake MA, Watson ME, Liu Y (2023) Sensory Analysis and Consumer Preference: Best Practices. *Annual Review of Food Science and Technology* 14:427–448

Dusauw E, Mangantar M, Pandowo MH (2023) The impact of sensory marketing on consumer behavior at Starbucks Manado. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi* 11(1):138–146.

Fan W (2021) What makes consumer perception of online review helpfulness: Synthesizing the past to guide future research. *Hawaii International Conference on System Sciences*.

Farida L, Rasyid C. (2023) The effect of price discount and hedonic shopping value on impulsive buying at Tiktok Shop. *Jurnal Ilmiah Manajemen Ekonomi dan Akuntansi (MEA)* 7 (3):245-257.

Ferreira BM (2019) Packaging texture influences product taste and consumer

satisfaction. *Journal of Sensory Studies* 34(6):1-9.

Fong LHN, Lei SSI, Chow CWC, Lam LW (2023) Sensory marketing in hospitality: a critical synthesis and reflection. *International Journal of Contemporary Hospitality Management* Vol. 35 No. 8:2916–2928

Fürst A, Pecornik N, Binder C (2021) All or Nothing in Sensory Marketing: Must All or Only Some Sensory Attributes Be Congruent with a Product's Primary Function? *J Retail* 97:439–458

Gao F, Lan X (2020) Sensory Brand Experience: Development and Validation in the Chinese Context. *Front Psychol* 11:14–36

Girard A, Lichters M, Sarstedt M, Biswas D (2019) Short-and long-term effects of nonconsciously processed ambient scents in a servicescape: Findings from two field experiments. *J Serv Res* 22:440–455

Hamacher K, Buchkremer R (2022) The Application of Artificial Intelligence to Automate Sensory Assessments Combining Pretrained Transformers with Word Embedding Based on the Online Sensory Marketing Index. *Computers* 11:129

He Z, Zhou Y, Wang J et al. (2023) Influence of emotion on purchase intention of electric vehicles: a comparative study of consumers with different income levels. *Curr Psychol* 42:21704–21719

Herbes C, Friege C, Baldo D, Mueller K-M (2015) Willingness to pay lip service? Applying a neuroscience-based method to WTP for green electricity. *Energy Policy*. 87. 562–572. 10.1016/j.enpol.2015.10.001.

Hulten B, Rodrigues C, Brito C (2011) Sensorial brand strategies for value Cocreation. *Innovative Marketing* 7(2):40–47

Jang S, Chung J, Rao VR (2021) The importance of functional and emotional content in online consumer reviews for product sales: Evidence from the mobile gaming market. *Journal of Business Research* 130:583–593.

Jutta R (2023) Product appeal, sensory perception and consumer demand. *European Review of Agricultural Economics* 50:1338–1363

Korhonen PJ, Malo P, Pajala T, Ravaja N, Somervuori O, Wallenius J (2018) Context matters: The impact of product type, emotional attachment and information overload on choice quality. *European Journal of Operational Research* 264(1):270–279

Koszembar-Wiklik M (2019) Sensory marketing – sensory communication and its social perception. *Communication Today* 10(2).

Krishna A (2012) An integrative review of sensory marketing: Engaging the senses to affect perception, judgment and behavior. *Journal of Consumer Psychology* 22(3):332–351

Krishna A, Luca C, Sokolova T (2016) The Power of Sensory Marketing in Advertising. *Current Opinion in Psychology* 10 (August):142–147

Krupka Z (2023) Exploring the Influence of Sensory Marketing on Brand Perception. *Naše gospodarstvo/Our Economy* 69(3):45–55.

Lim W (2023) Philosophy of science and research paradigm for business research in the transformative age of automation, digitalization, hyperconnectivity, obligations, globalization and sustainability. *Journal of Trade Science* 11: 3-30.

Moreira AC, Fortes N, Santiago R (2017) Influence of sensory stimuli on brand experience, brand equity and purchase intention. *J Bus Econom Manag* 18:68–83

Müller KM (2010) Pricing using novel tools from neuroscience. *The Pricing Advisor* 11:1–4.

Müller KM (2021) The mind of the seller: How NeuroPricing™ revolutionized the sales and pricing strategy of an insurance company, *I-VW-HSG Trendmonitor* 2(2021):30–32.

Müller KM, Binckebank L, Faulhaber V, Scheibel M (2022) Implizite Preismessungen – Verbessertes Forecasting im Controlling. *Marketing Review St. Gallen*. 1(2022): 888–894.

Murphy E, Illes J, Reiner P (2008) Neuroethics of Neuromarketing. *Journal of Consumer Behavior* 7:293–302.

Parikh H, Baldo D, Müller KM (2017) Pricing. *Consumer neuroscience*: 241–254.

Quach S, Barari M, Thaichon P, Moudry DV (2023) Price promotion in omnichannel retailing: how much is too much? *Asia Pacific Journal of Marketing and Logistics* 35 (1):198–213.

Ramanankonenana T, Randriamamonjy LH (2023) Effect of sensory marketing in Consumer behavior during the Act of purchase: a case study of supermarkets. *International Journal of Economics and Business Issues* 2(2):13–21.

Ranaweera AT, Martin BA, Jin HS (2021) What you touch, touches you: The influence of haptic attributes on consumer product impressions. *Psychol. Mark.* 38 (1):183–195.

Riquelme IP, Román S (2023) Personal antecedents of perceived deceptive pricing in online retailing: the moderating role of price inequality. *Electron Commer Res* 23:739–783.

Sagha, MA., Seyyedamiri N, Foroudi P, Akbari M. (2022) The One Thing You Need to Change Is Emotions: The Effect of Multi-Sensory Marketing on Consumer Behavior. *Sustainability* 14(4).

Satti ZW, Babar SF, Ahmad HM (2021) Exploring mediating role of service quality in the association between sensory marketing and customer satisfaction. *Total Quality Management & Business Excellence* 32(7-8): 719-736.

Shahid S, Paul J, Gilal FG, Ansari S (2022) The role of sensory marketing and brand experience in building emotional attachment and brand loyalty in luxury retail stores. *Psychology & Marketing* 37(7):1398–1412.

Simha S (2019) Study of Sensory Marketing Strategies in Retailing Business. *Proceedings of the 3rd Asia Pacific Management Research Conference (APMRC 2019)*.

Singh A, Jenamani M, Thakka, JJ, Rana NP (2022) Quantifying the effect of eWOM embedded consumer perceptions on sales: An integrated aspect-level sentiment analysis and panel data modeling approach. *Journal of Business Research* 138:52–64.

Sowier-Kasprzyk I (2022) Impact of sensory marketing on customer loyalty and purchase decisions. *Humanitas University's Research Papers Management* 23(3):73–85.

Sung B, Wilson NJ, Yun JH, Lee E (2019) What can neuroscience offer marketing research? *Asia Pacific Journal of Marketing and Logistics*.

Trompeta MA, Karantinou K, Koritos C, Bijmolt TH (2022) A meta-analysis of the effects of music in tourism and hospitality settings. *Journal of Business Research* 138:130–145.

van Kleef GA, Côté S (2022) The social effects of emotions. *Annual Review of Psychology* 73(1):629–658.

Vargo SL, Lusch RF (2004) Evolving to a New Dominant Logic for Marketing. *Journal of Marketing* 68(1):1–17.

Vural Y, Ferriday D, Rogers PJ (2023) Consumers' attitudes towards alternatives to conventional meat products: Expectations about taste and satisfaction, and the role of disgust. *Appetite* 181:106394.

Wang Q, Zhao N, Wu J, Zhu Q (2021) Optimal pricing and inventory policies with reference price effect and loss-averse customers. *Omega* 99:102174.

Williamson AJ, Drencheva A, Wolfe MT (2022) When do negative emotions arise in entrepreneurship? A contextualized review of negative affective antecedents. *Journal of Small Business Management* 62(1):209–253.

Xu X, Zheng F (2023) Examining the effects of negative emotions on review helpfulness: The moderating role of product price. *Computers in Human Behavior* 139:107501.

Yan H, Wang YJ (2019) Research on the intrinsic influence mechanism of consumers' expected emotions affecting green purchasing behavior. *Price: Theory & Practice* 7:120–123.

Yoganathan V, Osburg V-S, Akhtar P (2019) Sensory stimulation for sensible consumption: Multisensory marketing for e-tailing of ethical brands. *Journal of Business Research* 96:386–396.

Yu J (2019) Verification of the role of the experiential value of luxury cruises in terms of price premium. *Sustainability* 11(11):3219.

Zammito JH (2004) *A Nice Derangement of Epistemes. Post-positivism in the study of Science from Quine to Latour*. Chicago & London: The University of Chicago Press.

Zha D, Foroudi P, Jin Z, Mellow TC (2022) Making Sense of Sensory Brand Experience: Constructing an Integrative Framework for Future Research. *Int J Manag Rev* 24:130–167.

Zhang G, Guohao L, Shang J (2022) Optimizing Mixed Bundle Pricing Strategy: Advance Selling and Consumer Regret. *Omega* 115:102782.