



Neuromarketing in Food Retailing

Application of Neuromarketing in retailing and Merchandising



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KEY ARTICLES USED IN THIS PRESENTATION

- Jakub Berčík, L'udmila Nagyová, Elena Horská and Andrzej Krasnddebski, “Application of neuromarketing in retailing and merchandising”, *Neuromarketing in food retailing*, © Wageningen Academic Publishers 2018, https://doi.org/10.3921/978-90-8686-843-8_6.
- Jakub Berčík, Johana Paluchová, Katarína Neomániová and Andrzej Krasnddebski, “Application of neuromarketing in visual merchandising in services”, *Neuromarketing in food retailing*, © Wageningen Academic Publishers 2018, https://doi.org/10.3921/978-90-8686-843-8_7.
- Jakub Berčík, and J. Rybanská, “Methods used in neuromarketing”, *Neuromarketing in food retailing*, © Wageningen Academic Publishers 2018, https://doi.org/10.3921/978-90-8686-843-8_6.
- Horská, E. and Berčík, J., “The influence of light on consumer’s behavior at the food market”, *Journal of Food Products Marketing*, 2014, 20(4): 429-440.
- Borusiak, B., Pierański, B., Brohm, D. and Domurath, N., “Application of neuromarketing in communication with the customer”, *Neuromarketing in food retailing*, 2018, https://doi.org/10.3921/978-90-8686-843-8_5.

LEARNING OBJECTIVES

After this presentation you should be able to:

- Understand the history behind Neuromarketing.
- Understand the human brain and nervous system.
- Understand the difference between measuring brain and biometric signals.
- Decide on appropriate methods measuring brain and biometric signals according to research objective.

TIMELINE



Magnetoencephalography (MEG) was introduced by David Cohen

Transcranial magnetic stimulation (TMS) was introduced by Antony Barker

1924

1975

1990

1968

1985

EEG was introduced by Hans Berger

Positron emission tomography (PET) for functional brain imaging was introduced by Ter-Pogossian

fMRI was introduced by Ogawa

TO GIVE YOU A SENSE OF HOW "YOUNG" THESE TECHNIQUES ARE

TIMELINE



First neuro-researches carried out in the USA

The concept of 'Neuromarketing' first pronounced

1983

1999

2008

1991

2002

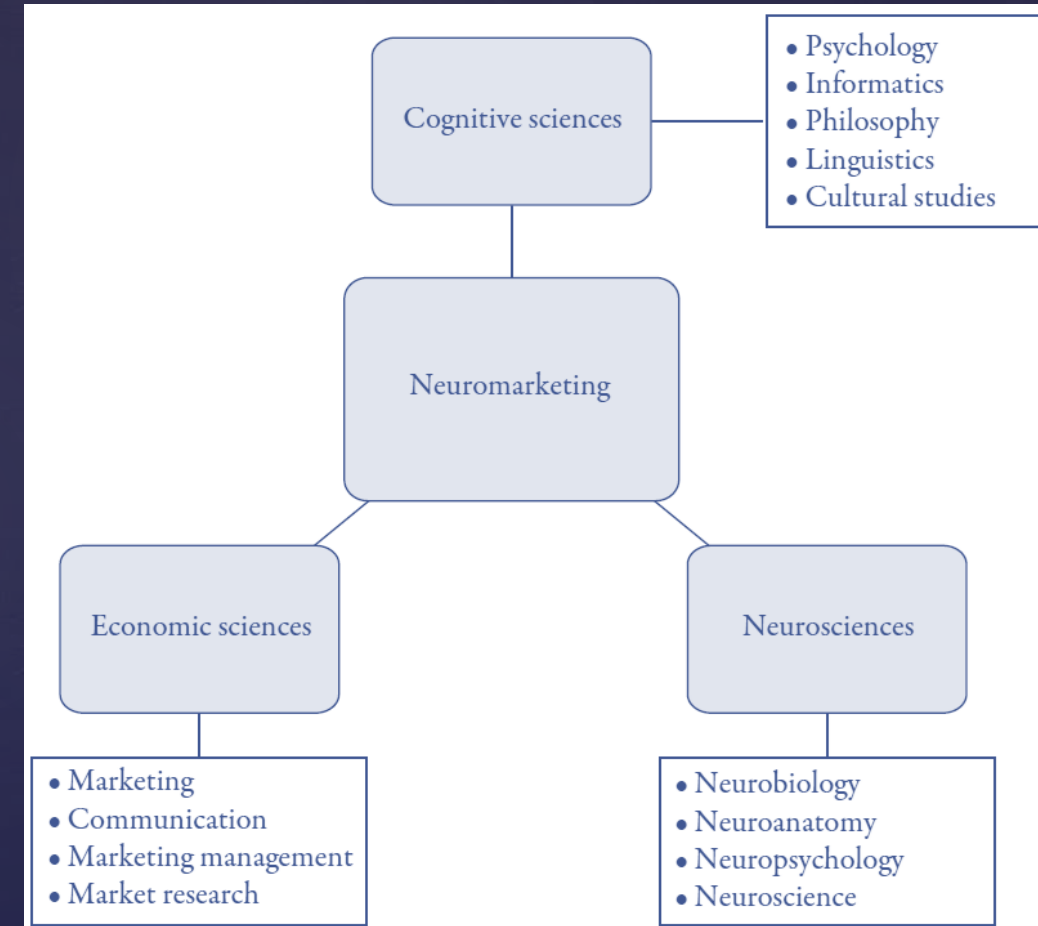
First concept of the brain areas performing specific independent function

fMRI firstly used as a marketing research tool

More than 90 Neuromarketing agencies existing

INTEGRATION OF SCIENTIFIC DISCIPLINES

- ✓ Linking several disciplines such as economics, biologics, psychology and neuroscience, created neuromarketing.
- ✓ The brain is responsible for our buying behaviour.
- ✓ Neuromarketing focuses on how individuals and groups can be altered in one pattern of decisions into another pattern, or to change their distribution of choices.



INTERDISCIPLINARY RELATIONS WITH PSYCHOLOGY

❖ The question of how we make and how we shall make decisions and judgements interest philosophers for hundreds of years and still inspires some disciplines.

❖ A lot of different specializations within the field of psychology.

SPECIALIZATION	DESCRIPTION
Neuroscience	Studies the anatomy, biochemistry, or physiology of the nervous system.
Behavioural Neuroscience	Investigates how functioning of the brain and other organs influences behavior.
Cognitive Neuroscience	Uses brain research, such as scans of brain anatomy or activity to analyse and explore people's knowledge, thinking, and problem solving.
Neuropsychology	Conducts behavioural tests to determine the abilities and disabilities of people with various kinds of brain damage and changes in their condition over time.
Psychophysiology	Measures heart rate, breathing rate, brain waves and other body processes and how they vary from one person/situation to another.
Neurochemistry	Investigates the chemical reactions in the brain.
Clinical psychology	Helps people with emotional problems.
Neurology	Treats people with brain damage or diseases of the brain.
Neurosurgery	Performs brain surgery.
Psychiatry	Helps people with emotional distress or troublesome behaviours, using drugs or other medical procedure.

THE BRIEF HISTORY OF NEUROMARKETING 1/2

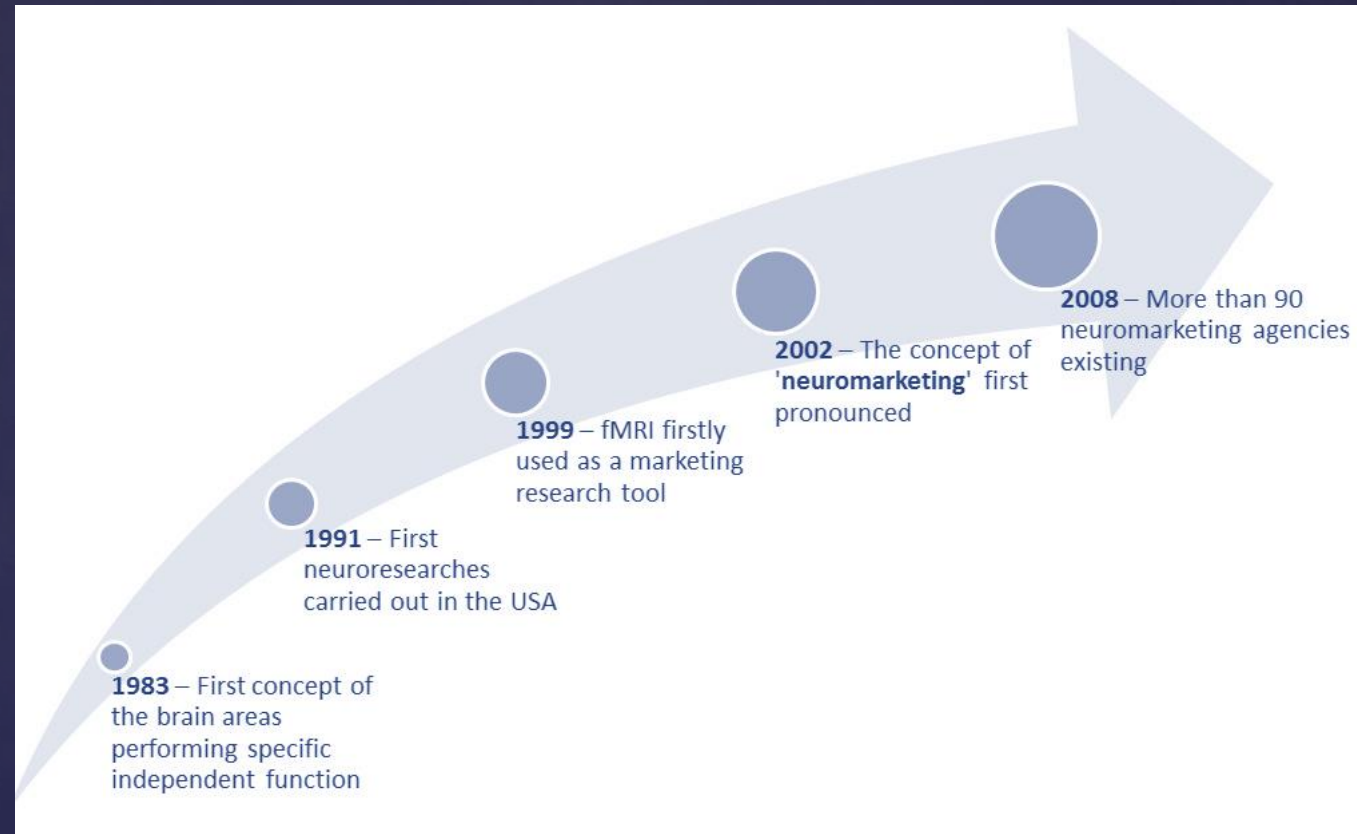
- ❖ The increased use of neuroscientific methods with the aim of better understanding of human behavior led to the creation of the term: Neuroculture (frazetto and anker, 2009). All kinds of neuro-terms were used, like: neurotheology, neurophilosophy, neuro-economics, neuroscience.
- ❖ The goal of marketing is to know and understand the consumer to the extent that companies can sell their products and good without promotion, because they perfectly meet market requirements.

THE BRIEF HISTORY OF NEUROMARKETING 2|2

MOST IMPORTANT REASONS TO CREATE AND DEVELOP NEUROMARKETING ARE:

1. BUYERS ARE MORE SOPHISTICATED AND OVERLOADED WITH A GREATER AMOUNT OF INFORMATION
2. COMPETITION IS MORE INTENSE
3. THE SALES CYCLE IS PROLONGED
4. RESISTANCE AGAINST TRADITIONAL SALES TECHNIQUE IS INCREASING.

❖ **Professor Ale Smidts is considered to be the father of Neuromarketing. He won a Prize in 2002 for his work, leading the concept of Neuromarketing.**



THE DEFINITION OF NEUROMARKETING 1/2

- ❖ A WIDE VARIETY OF DEFINITIONS FOR NEUROMARKETING.
- ❖ NEUROMARKETING (CONSUMER NEUROSCIENCE) IS STILL A RELATIVELY NEW AND CONSTANTLY DEVELOPING DISCIPLINE THAT INCLUDES:
 1. BEHAVIOURAL RESEARCHES
 2. STRATEGIES BASED ON PREDICTING CONSUMER BEHAVIOUR
 3. FINDING REAL AND TRUE CONSUMER PREFERENCES
 4. SUBLIMINAL INFLUENCE



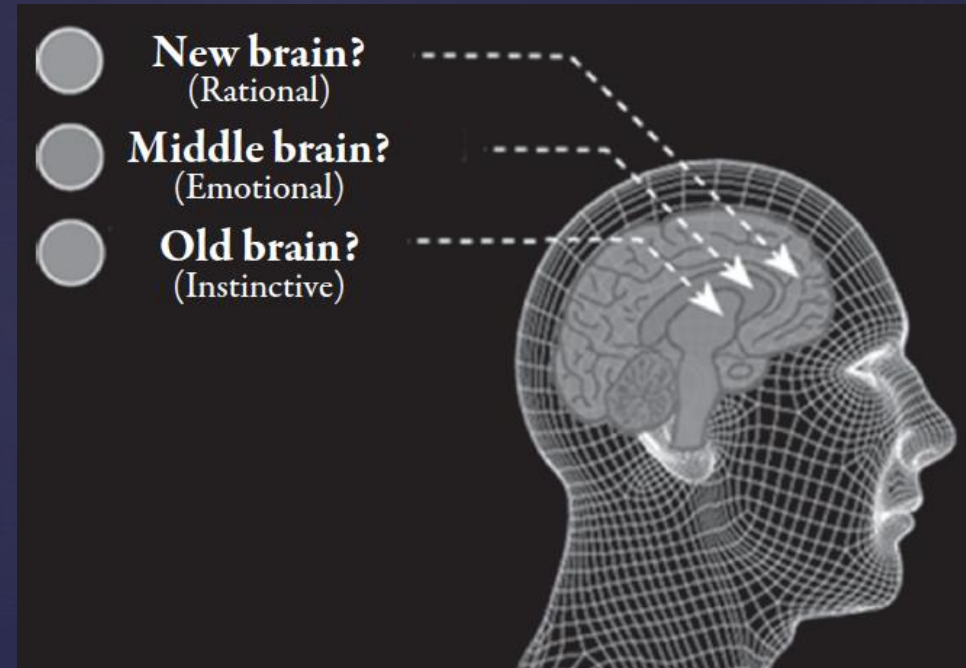
THE DEFINITION OF NEUROMARKETING 2|2

❖ NEUROMARKETING CAN PROVIDE INFORMATION

ABOUT:

1. WHAT HAPPENS IN THE HUMAN BRAIN DURING THE ACTION OF MARKETING STIMULI
2. HOW THE HUMAN BRAIN RESPONDS TO MARKETING STIMULI PRESENTED IN DIFFERENT SITUATIONS
3. HOW THE BRAIN TRANSFORMS THESE REACTIONS INTO CONSUMER BEHAVIOUR AND DECISION-MAKING

❖ MODERN NEUROIMAGING TECHNIQUES: TOOLS THAT HELP TO SEE INTO HUMAN BRAINS AND FIGURE OUT HOW THEIR 'BLACK BOX' WORKS.



Identification of the parts of the human brain based on Renvoisé and Morin model

THE NERVOUS SYSTEM AND THE HUMAN BRAIN

NEURONS HAVE THREE BASIC FUNCTIONS: SENSORY, CONNECTIVE AND MOTORIC.

THE NERVOUS SYSTEM HAS TWO PARTS:

1. THE CENTRAL NERVOUS SYSTEM; CONSISTING OF THE BRAIN AND SPINAL CORD (CNS)
2. THE PERIPHERAL NERVOUS SYSTEM; CONSISTING OF NERVES AND NEURONS LOCATED BEYOND THE CENTRAL NERVOUS SYSTEM.

NEUROMARKETING IS INTERESTED IN THE CENTRAL NERVOUS SYSTEM.

THE EMOTIONS

EMOTIONS ACCORDING TO THEIR DURATION CAN BE DIVIDED INTO:

1. AFFECTS
2. MOODS
3. LONG-TERM EMOTIONAL RELATIONS

EMOTIONS CAN BE FURTHER DIVIDED ACCORDING TO QUALITY:

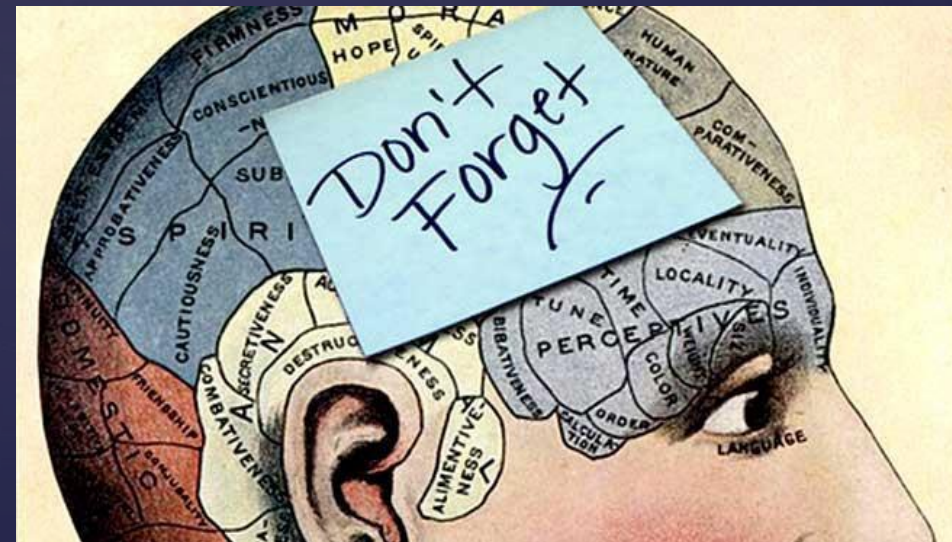
1. LOWER QUALITY (JOY, SADNESS, FEAR, ANGER, ETC.)
2. HIGHER QUALITY (INTELLECTUAL, AESTHETIC, SOCIAL, ETC.)

THE MEMORY

➤ MEMORY MEANS THE ABILITY TO STORE STRUCTURED INFORMATION IN TIME.

✓ THE HUMAN BRAIN IS EQUIPPED WITH 6 DIFFERENT TYPES OF MEMORY:

1. SENSORY MEMORY
2. SHORT-TERM MEMORY
3. LONG-TERM MEMORY
4. EPISODIC MEMORY
5. PROCEDURAL MEMORY
6. SEMANTIC MEMORY



INTRODUCTION TO NEUROMARKETING METHODS

Neuromarketing research is based on a model that explains how people use their brain for understanding, explaining, and influencing the outside world. This model divides the brain operations into four basic activities:

- forming impressions
- determining the meaning and value
- reflecting and analyzing
- speaking and acting

Two fundamental differences in the nervous system are important for understanding the origin and the methods of particular neuromarketing measurements:

- The first difference between the CNS and PNS (or simply between the brain and body)
- The second difference in terms of neuromarketing measurements is that the motor commands made by the PNS may be communicated through the somatic nervous system (SNS) or the autonomic nervous system (ANS).

INTRODUCTION TO NEUROMARKETING METHODS

NEUROMARKETING MEASURES			
BODY MEASURES		BRAIN MEASURES	
Somatic (SNS) measures	Automatic (ANS) measures	Blood flow measures	Electrical measures
Facial expressions	Electrodermal activity (EDA)	Blood oxygenation (fMRI)	Electrical fields (EEG)
Facial muscle movements	Heart rate	Positron emissions (PET)	Magnetic fields (MEG)
Eye movements and fixations	Blood pressure		
Eye blinks and the pupil reflex	Respiration		
Behavioral response times	Pupil dilation		

METHODS OF MEASURING BRAIN SIGNALS

Neurological (Neurometric) indicators (based on signals from the brain) are more complex, but also more accurate and detailed than biometric parameters.

When determining which research method to use, three factors are of primary importance:

- **temporal resolution** (frequency in time for measurements)
- **spatial resolution** (the ability to distinguish differently functioning brain parts)
- **invasiveness** (whether the measurement can be made without damage to or disruption of the brain or other body tissue)

Technologies which measure brain activity are often referred to as **Neuroimaging technologies**, because they include images or pictures presenting brain activity.

METHODS OF MEASURING BRAIN SIGNALS

Measurements can be divided into two main groups:

- 1) **The measurement of blood flow:** reflects the brain activity based on localizing the increased blood flow which is essential for the supply of energy (oxygen and glucose) for activated neurons.
 - **Functional magnetic resonance imaging (fMRI):** The ability to gather large amount of information, create a picture of deep brain structures, recognize genuine emotions, no aggressive effects.
 - **Positron Emission Tomography (PET):** Using PET scanner requires detailed logistical planning and brings also some technical problems related to the application of radioactive material and its short life. Similarly as fMRI, the PET examination method is very costly, which greatly limits the size of the survey sample and subsequent generalization of results.
 - **Functional Transcranial Doppler (fTCD):** Can be used outside the laboratory and has a relatively low price.

METHODS OF MEASURING BRAIN SIGNALS

2) **Electrical measurement** - directly captures the electrical and magnetic activity consisting of activated neurons:

Electroencephalography (EEG)

The advantages of this method are:

- not financially, spatially, and time demanding
- massive support from scientific literature
- providing results in real time
- the availability of mobile versions

Disadvantages of this method include:

- the possibility of measuring the electrical activity deep in the brain (subcortical brain activity) is absent
- the need for specialized staff when interpreting the results
- difference in the electrical conductivity of the surveyed subjects
- irrationality of the assumptions that brain impulses arise only based on certain stimuli

METHODS OF MEASURING BRAIN SIGNALS

2) **Electrical measurement** - directly captures the electrical and magnetic activity consisting of activated neurons:

Magnetic Encephalography (MEG)

The advantages include:

- fast and accurate recording of changes due to stimuli,
- the ability to gather large amount of information,
- excellent spatial resolution with millimetre accuracy.

Disadvantages of this method can be described as follows:

- financially, spatially, and operationally demanding,
- the need for professional service,
- signals of interest are very small compared to other methods.

METHODS OF MEASURING BIOMETRIC SIGNALS

Biometrics is a universal concept that involves measurements of physiological responses of the body – not directly the brain – to the external stimuli that are perceived through the senses.

Biometric measurements can be divided into:

1) **Measurements of somatic functions** - they can be at least partially influenced:

- **Facial expressions:** a whole range of emotional states is recognizable on the human face.
- **Eye tracking:** measuring eye movements and dilated pupils when viewing the subject.
- **Response time:** The rate of response time provides a simple and available way of testing the strength of association between different concepts.



METHODS OF MEASURING BIOMETRIC SIGNALS

FaceReader 4.0

File Options View Window Plugins Help

Video Analysis

00:22.75 / 00:35.25

Overview

No.	Results
1	00:00.00 - 00:22.75

Clear Logs

Settings

Name	Value	change
Selected calibration	None	change
Continuous calibration	Off	change
Sample rate	Every frame	change
Image rotation	None	change
Active face model	General	change

Analysis Visualization

Visualization Mesh

Image quality

Expressions

Legend: Neutral (grey), Sad (purple), Happy (green), Angry (red), Surprised (orange), Scared (teal), Disgusted (blue)

Expression Intensity

Legend: Neutral, Happy, Sad, Angry, Surprised, Scared, Disgusted

Timeline

States

Legend: Neutral, Happy, Surprised, Mouth (Open/Closed)

Expression Summary

Settings

Analysis Block 1

Legend: Angry, Surprised, Other, Neutral, Happy, Sad

Expressions Timeline Expression Summary Expression Intensity Analysis Visualization

METHODS OF MEASURING BIOMETRIC SIGNALS

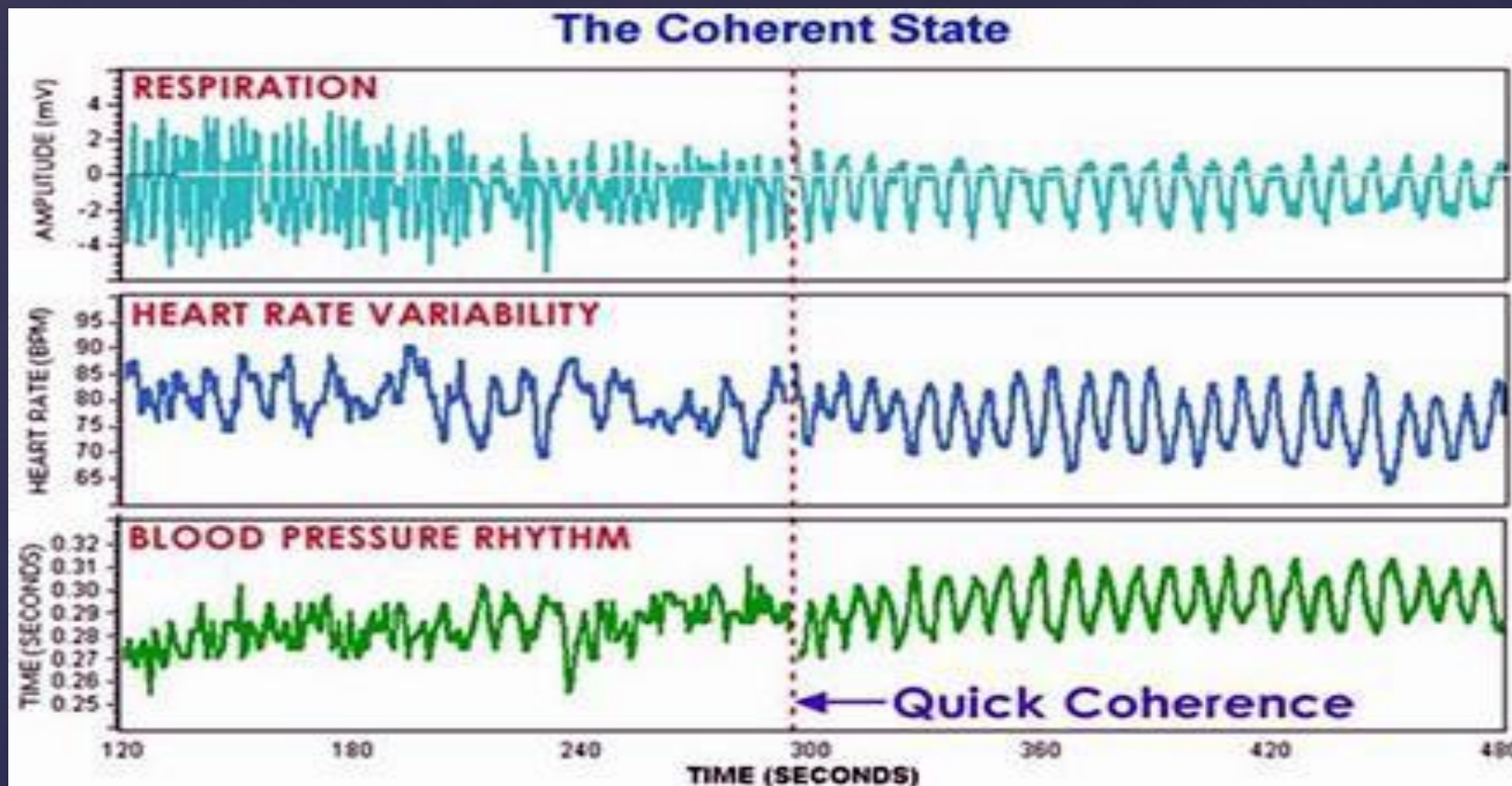
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Biometric measurements can be divided into:

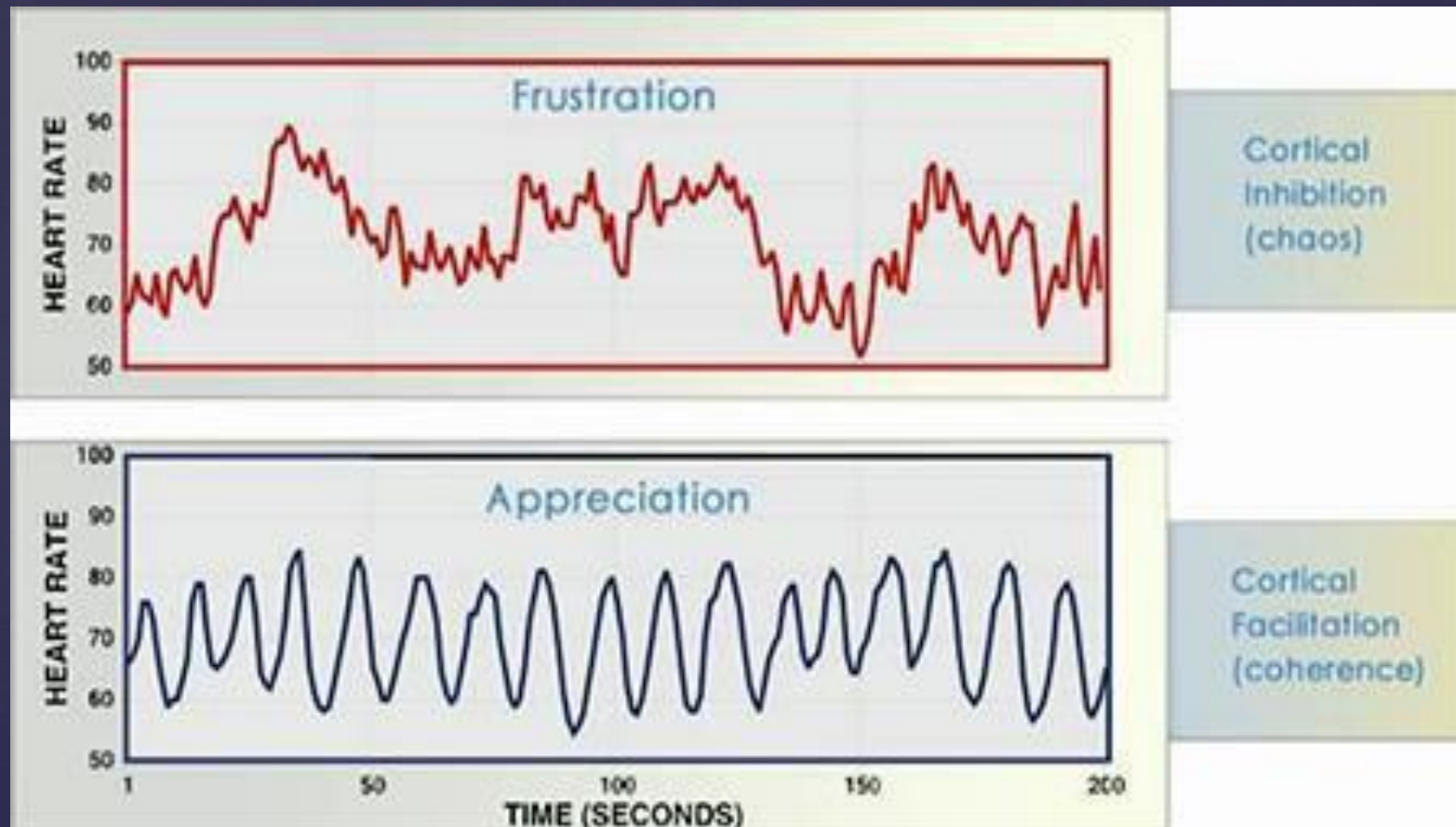
2) **Measurements of autonomic functions** - they cannot be influenced and happen automatically:

- **Electrodermal activity:** measuring changes in skin resistance due to sweating.
- **Breathing:** monitoring changes in breathing, respiratory rate, depth of inhalation, and exhalation.
- **Heart rate and blood pressure:** are other indicators of the onset of an emotion.
- **Dilated pupils (pupillary reflex):** eye pupil dilation and narrowing.

EXAMPLES OF MEASURING BIOMETRIC SIGNALS



EXAMPLES OF MEASURING BIOMETRIC SIGNALS



COMBINING MULTIPLE RESEARCH METHODS INTO A SINGLE UNIT

Mobile Eye Tracker (Tobii, SMI) and Mobile EEG



Special shopping cart for Neuromarketing field research



SUMMARY

In this section the following topics were discussed:

- We focused on the human nervous system in order to understand the human body producing signals subject to Neuromarketing measurements better.
- Neuromarketing involves advanced measures, many of which have been applied and modified for decades in medicine and academic research.
- We also focused in detail on the signals obtained from the body (biometrics) and the brain (neuroimaging) and we also described the various techniques which can be used.
- The value of neuromarketing research is primarily a function of fulfilling three aspects:
 - ✓ Defining the right research question.
 - ✓ Identifying (selecting) correct measurements of consumer responses.
 - ✓ Designing the right test for the specific research question.

LEARNING OBJECTIVES

After this presentation you should be able to:

- Understand the importance of Neuromarketing
- Understand the meaning of merchandising – Visual merchandising – Sensory merchandising
- Apply various merchandising tools in retailing
- Apply various merchandising tools in services
- Decide on neuromarketing methods, techniques, research plans and objectives to measure the impact of merchandising and in-store conditions on buying behavior and decision to do purchase

THE IMPORTANCE OF NEUROMARKETING 1/4

THE THREE MOST COMMONLY USED METHODS IN TRADITIONAL MARKETING:

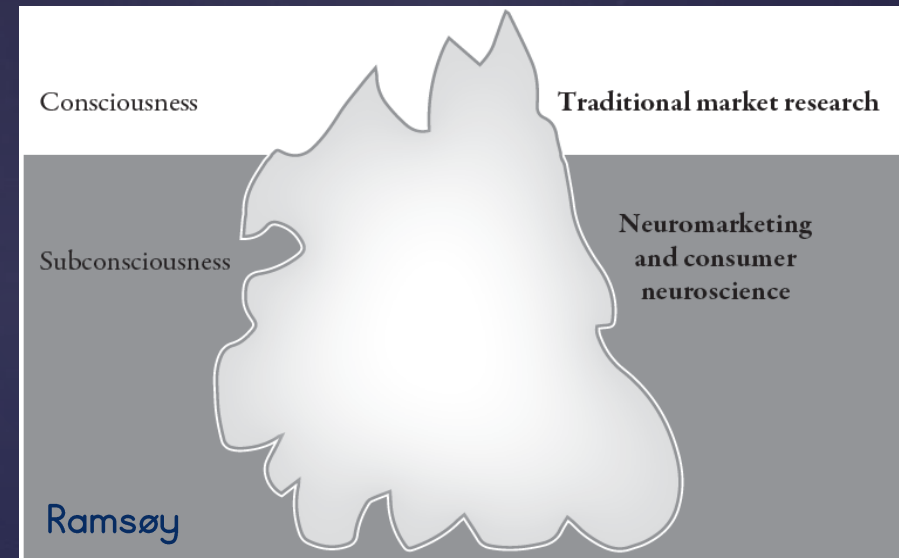
1. INTERVIEWS
2. GROUP DISCUSSIONS
3. CONSUMER QUESTIONNAIRES

FACTORS THAT MOST OFTEN CAUSE MISSTATEMENTS IN TRADITIONAL MARKETING:

1. SHORTAGE OF TIME
2. RELUCTANCE TO ANSWER HONESTLY
3. SUBCONSCIOUSNESS OF THE PERSON
4. MISUNDERSTANDING OF THE RESEARCH PROBLEM

THE IMPORTANCE OF NEUROMARKETING 2/4

- Ice ideology - Importance of mapping unconscious customer level



The iceberg analogy shows the differences between the traditional (methods such as interviews, surveys, and focus groups) & neuromarketing market research

ICE IDEOLOGY IN PSYCHOLOGY

CONSCIOUS MIND

0.5-5%

SUBCONSCIOUS MIND

95-99.5%

- Controls all the systems in the body
- Intelligent field that created the body from a single fertilized cell
- Literal & metaphoric
- Not linear (no distinction between past, present & future)
- Movie = reality = perception
- Generalizes

THE IMPORTANCE OF NEUROMARKETING 3/4

- ❖ **NEUROMARKETING IS BASED ON THE FINDING THAT 95% OF HUMAN THINKING AND ACTIVITY TAKES PLACE IN THE SUBSCONSCIOUS. (KOZES ET AL, 2011)**
- ❖ **THREE MAJOR REASONS TO REVIEW SUBSCONSCIOUS REACTIONS IN CONSUMER DECISION-MAKING:**
 1. DECISIONS ARE OFTEN BASED ON SUBSCONSCIOUS PROCESSES AND IMPACTS.
 2. EMOTIONS STRONGLY INFLUENCE THE DECISION-MAKING.
 3. DECISIONS ARE NOT OFTEN MADE AFTER OBTAINING COMPLETE INFORMATION.

THE IMPORTANCE OF NEUROMARKETING 4|4

❖ THE MAIN ADVANTAGES OF TRADITIONAL MARKETING ARE:

1. RELATIVELY LOW COST
2. EASIER PROCESSING AND INTERPRETATION
3. DOES NOT REQUIRE THE PRESENCE OF SPECIALISTS (NEUROLOGISTS)
4. ACCEPTED BY THE GENERAL PUBLIC
5. THE AVAILABILITY OF IMPLEMENTATION

❖ THE MAIN ADVANTAGES OF NEUROMARKETING ARE:

1. FASTER FEEDBACK
2. MORE DETAILED AND ACCURATE INFORMATION
3. FINDING REAL AND TRUE PREFERENCES
4. SMALLER REPRESENTATIVE SAMPLE OF STUDIED SUBJECTS
5. THE USE OF THE LATEST TECHNOLOGIES

NEUROMARKETING RESEARCH

Neuromarketing research can be classified from different perspectives:

- According to the approach to reactions:
 - Biometric
 - Brain
 - Combination
- According to the place of conducting the research:
 - Simulated conditions (Laboratory)
 - Real conditions (Stores, outdoors, services companies)
 - Online (Online panel studies, social media)
- According to the institution conducting the research:
 - Academic
 - Commercial

NEUROMARKETING RESEARCH

- According to the orientation to stimuli:
 - Sensory neuroresearch
 - Marketing (4P/4C) neuroresearch
- According to the type of imaging technology:
 - Stationary devices:
 - Invasive technologies
 - Non-invasive technologies
 - Mobile devices:
 - Invasive technologies
 - Non-invasive technologies
- According to the object of the research:
 - Research of marketing mix
 - Research of consumer behavior

BTL VS ATL

LET THE BATTLE BEGIN

ABOVE-THE-LINE VS. **BELOW-THE-LINE**

ROUND 1

CHANNELS

Above-the-line (ATL) marketing involves mass media methods for targeting larger and more general customers who utilise:

- TELEVISION & CINEMA
- RADIO

Below-the-line (BTL) marketing is the same as direct marketing for reaching smaller but more targeted audiences. Methods include:

- PR
- SEARCH ENGINE MARKETING

MERCHANDISING IN RETAILING

- ✓ Merchandising as word originates from English word merchandise, which means commodity/ to trade. It is a department that deals with the marketing care for products mainly in the retail trade. “Merchandising is a phenomenon which uses various techniques and methods to make sure that only "our" product becomes the focus of attention of the consumer. Merchandising is the final and most important step to be taken in order to deliver goods at the right time, price and highest possible quantity to the consumer “Kotler and Armstrong, 1992”

The retail unit is made up of system components, which include:

- the goods
- retail activities
- mechanization and organizational means and equipment

Later components added (According to Starzyczna, 2001):

- Sales area
- Workers
- Construction and technical layout of operating units, to which can be allocated also the legislative, financial and communication elements associated with the sales.

MERCHANDISING IN RETAILING

The retail unit can be defined from the following aspects:

- Territorial (localization in the defined area)
- Building (such as room, resp. satellite or multifunctional building)
- Technical (hardware)
- Legislative and organizational (part of an organizational structure)
- Performance and technology (layout of stores, operating time, etc.)
- Marketing (the location of the merchandising—the impact of store layout and product presentation on customer behaviour)

MERCHANDISING IN RETAILING

The basic dimensions of merchandising at the retail include:

- **Organization of product placement** - based on the segmentation of markets and brands with the idea of better understanding of consumers
- **Management of shelves, brands and segments**
- **Attraction of the customer's attention** – the arrangement of the shelves in the store, brand and the store layout advertising at the point of sale, accessories, and furniture of the store creates the image and identity of the retail and they have to be attractive to the customers.

Based on the given dimensions, the merchandising can be divided into:

- Organizing merchandising focused on the layout of goods
- Merchandising focused on the management of the retail range
- Merchandising focused on catching the customer's attention

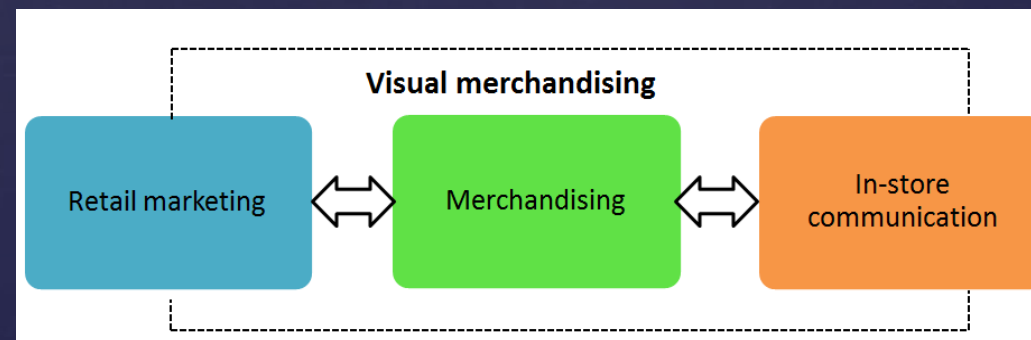
Current merchandising trends are: lightning, bright colours, good use of patterns, respect for the environment.

VISUAL MERCHANDISING IN RETAILING

According to Horská, visual merchandising deals with increasing sales using the effect of the shop's design.

It's main principle is the interest to increase sales through the art of design. It can be implemented as follows:

- ▶ exposure of products in the most beautiful light
- ▶ communication with customer
- ▶ act in a customer-friendly way in order to make a customer buy the product/service
- ▶ present the product from the customer's perspective
- ▶ reduce disturbances in the shop



Components of visual merchandising (Horská et al., 2014)

VISUAL MERCHANDISING IN RETAILING

Merchandising in sales units is closely related to the other two types of merchandising: visual merchandising and sensory merchandising.

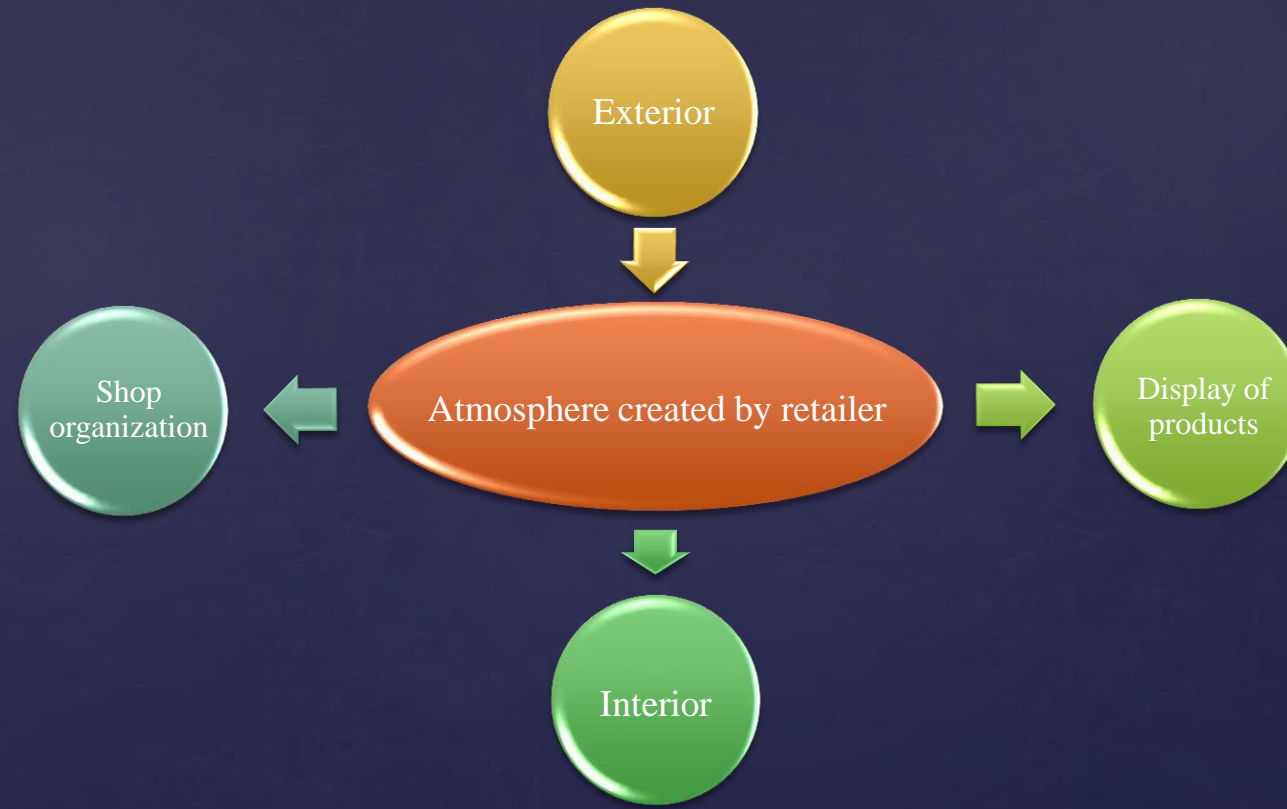
Visual merchandising "compels the prospective customer to stop, look and to buy through the use of visual presentation.

It can be implemented as follows:

- exposure of products in the most beautiful light
- communication with customer
- act in a customer-friendly way in order to
- Make a customer buy the product/service
- present the product from the customer's perspective
- reduce disturbances in the shop

VISUAL MERCHANDISING IN RETAILING

Multi-sensorial stimulation, as a part of visual merchandising, is crucial for ensuring the favorable purchasing atmosphere and welfare of customers in the sales area.



Elements of visual merchandising based on Singh et al., 2015

THE SENSES

- The customer's senses are the doors to the brain and purchase decisions. Hence special attention should be paid to the touch, sight, hearing, taste and smell of the consumer.
- Sensory Marketing - Neuromarketing



THE SENSE OF SIGHT AND PERCEPTION OF FRESHNESS

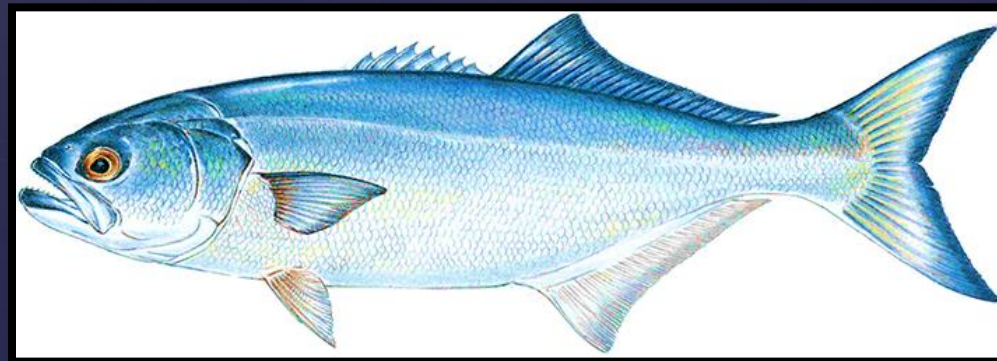


Perception of Freshness

FOR EXAMPLE FOR FRESH PRODUCTS...

Consumers associate colours to certain characteristics of the fresh products:

- ❖ Red fruits with antioxidant activity
- ❖ Red meat with its high iron content
- ❖ Green vegetables with healthy characteristics
- ❖ Bluefish with omega 3



FOR EXAMPLE FOR FRESH PRODUCTS...

The colour is also used as an indicator of maturation of a fresh vegetal product.

- ❖ Green bananas are assumed not to be ripe and ready to eat
- ❖ Yellow bananas are perceived as better tasting and more appealing
- ❖ Brown bananas are discarded and not eaten because they are not seen as fresh



SENSORY MERCHANDISING IN RETAILING

- **Sensory merchandising** can be defined as "A new form of marketing in retail using such factors that create an environment and atmosphere in the shop (Music & sound amplification in the retail store, Aroma, Color, Taste, Lighting inside the store and tactile elements); causing consumers to respond positively to the purchase of certain goods."
- **Lighting is used not only for accented lighting of food products, but also to induce photometric reactions in food products being sold.**
- **People not only perceive colours in a certain way, but vice-versa the colours somehow affect humans too. Experts distinguish four ways:**
 - Physical effect of colour
 - Physiological effect of colour
 - Psychological effect of colour
 - Visual effect of colour



COLOURS

- Colour is the result of our brain activity and construct of our mind “Šiki, 2012”
- **We encounter colours in everyday life. They are all around us. For sighted people colours have meaning and are an important psychological tool. Up to 60-80% of visual communication we receive is associated with colours. Colours that surround us affect our sub consciousness.**
- **People distinguish seven basic spectral colours:**
warm colours - red, orange and yellow;
cold colours – green, blue, indigo and violet.
- **Warm colours excite us, cold colours are soothing.**

CHARACTERISTICS OF COLOURS

Colour	Symbolism	Positive emotions	Negative emotions
Blue	Sky Heavens Air Water Coldness	Peace Liberation Righteousness Devotion Trust Tranquility Relaxation Spirituality Intelligence Discretion Balance	Melancholy Submission Lethargy

Negative emotions	Positive emotions	Symbolism	Colour
Rebellion Struggle War Aggression Anger Wrath Cruelty Danger	Love Passion Desire Excitement Vehemence Pride Energy Dynamics Activity Intensity	Blood Fire	Red

CHARACTERISTICS OF COLOURS

Colour	Symbolism	Positive emotions	Negative emotions
White	Light Purity Peace Truce	Innocence Immaculateness Virtue Faithfulness Sanctity Sterility Perfection Softness Lightness Fragility Balance	Coldness Uncertainty Restraint Caution Infinity Sorrow Isolation

Negative emotions	Positive emotions	Symbolism	Colour
Destruction Fear Inferiority Solitude Emptiness Sorrow Defiance Protest Negation	Esteem Authority Solemnity Dignity Strength Formality Elegance	Darkness Death	Black

CHARACTERISTICS OF COLOURS

Colour	Symbolism	Positive emotions	Negative emotions
Yellow	Light Sun Gold Spring Youthfulness	Pleasure Joyfulness Hope Optimism Wisdom Enlightenment Harmony Intellect Excitability Encouragement Irritation	Distrust Jealousy Cautiousness Cowardice Envy Falsity Betrayal

Negative emotions	Positive emotions	Symbolism	Colour
Roughness Whim Defiance	Pleasure Joyfulness Amusement Sociability Friendliness Energy Vitality Dynamics Creativity Maturity Harvest	Sun Warmth Gold Summer Shimmer	Orange

CHARACTERISTICS OF COLOURS

Colour	Symbolism	Positive emotions	Negative emotions
Grey	Neutrality Mediocrity	Balance Reliability Modesty Humility Intelligence Dispassionateness	Melancholy Submission Lethargy

Negative emotions	Positive emotions	Symbolism	Colour
Cruelty Suffering Punishment Eccentricity Tension Disquietude Mystery Ignorance Twilight	Imagination Mysticism Inspiration Resourcefulness Modesty Humility Wisdom Nobility Dignity	Spirituality Majesty	Violet

CHARACTERISTICS OF COLOURS

COLOR EMOTION GUIDE

OPTIMISM CLARITY WARMTH
FRIENDLY CHEERFUL CONFIDENCE
EXCITEMENT YOUTHFUL BOLD
CREATIVE IMAGINATIVE WISE
TRUST DEPENDABLE STRENGTH
PEACEFUL GROWTH HEALTH
BALANCE NEUTRAL CALM



PEACE	Vital Organic Prosperous
TRUST	Strong Tranquil Dependable
CREATIVITY	Intuitive Luxurious Wise
VITALITY	Bold Active Youthful
CONFIDENCE	Cheerful Happy Friendly
OPTIMISM	Clear Energetic Warm
BALANCE	Prestigious Peaceful Calm





BLUE & PURPLE

- blackberries
- blueberries
- black currants
- dates
- eggplants
- grapes
- plums
- prunes
- purple figs
- raisins

RED & PINK

- beets
- cherries
- cranberries
- pink grapefruit
- pomegranates
- radicchio
- red radishes
- red apples
- red grapes
- red peppers
- red potatoes
- rhubarbs
- strawberries
- tomatoes
- watermelons



EAT MORE COLOR

The best way to get all of the vitamins, minerals and nutrients you need is to eat a variety of colorful fruits and veggies. Add color to your plate each day with the five main color groups.

GREEN

- artichokes
- asparagus
- avocados
- bok choy
- broccoli
- Brussels sprouts
- celery
- collard greens
- cucumbers
- green beans
- green cabbage
- green grapes
- green onions
- green peppers
- kale
- kiwis
- leeks
- limes
- mustard greens
- okra
- pears
- peas
- romaine lettuce
- snow peas
- spinach
- sugar snap peas
- watercress
- zucchini

ORANGE & YELLOW

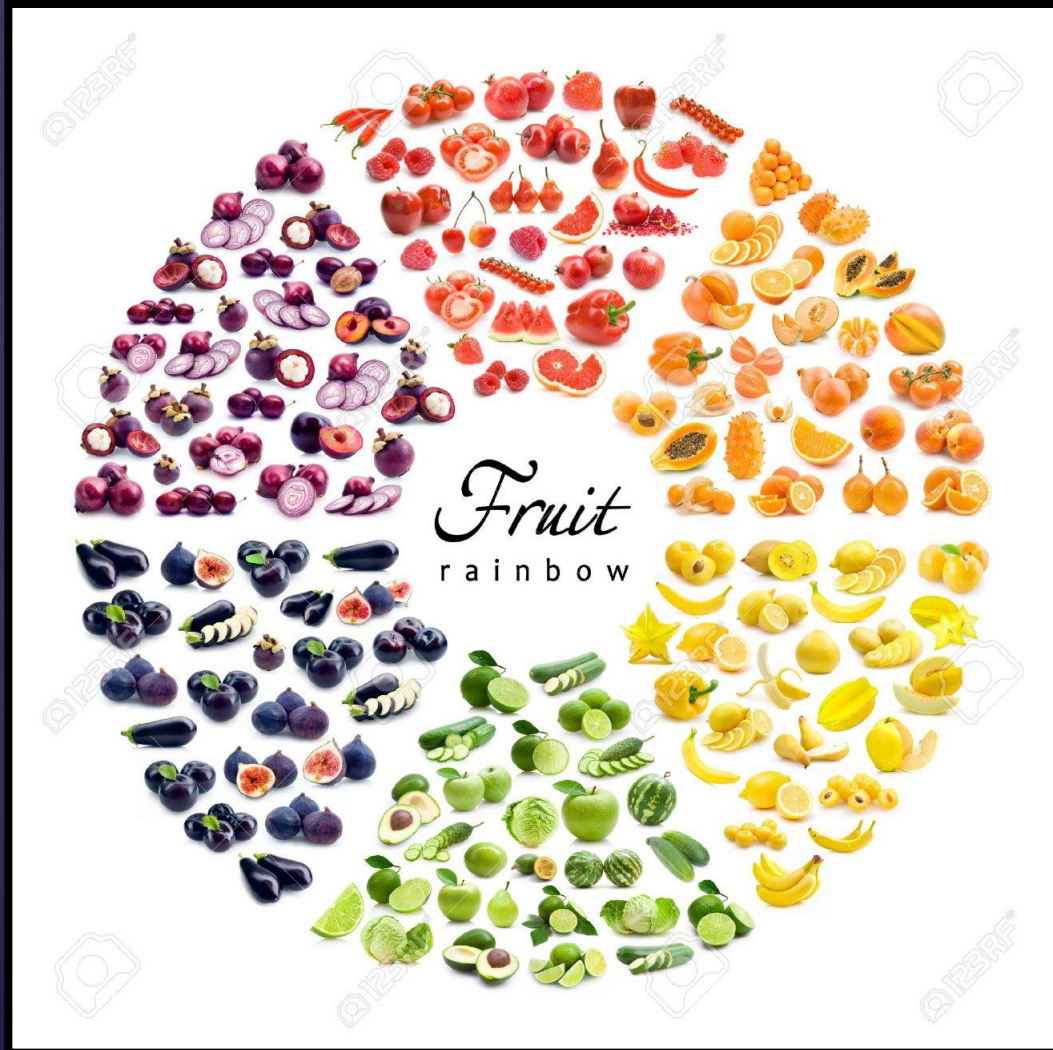
- acorn squash
- butternut squash
- apricots
- cantaloupes
- carrots
- corn
- grapefruit
- lemons
- mangoes
- nectarines
- oranges
- orange peppers
- papayas
- peaches
- pineapples
- pumpkins
- summer squash
- sweet potatoes
- tangerines
- yams
- yellow apples
- yellow peppers
- yellow squash

WHITE

- bananas
- cauliflower
- garlic
- Jerusalem artichokes
- mushrooms
- onions
- potatoes
- parsnips
- shallots







FOOD LOGOS GROUPING BY COLOUR



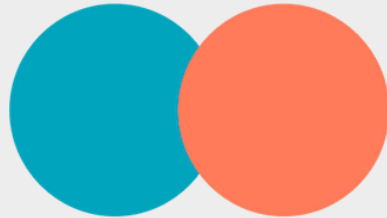
LOGO COLOR WHEEL



COLOUR AND BRANDS

Meaning	Brand Example
Happiness	
Excitement AND enthusiasm	
Joy AND stimulates appetite	
Natural and healthy products	

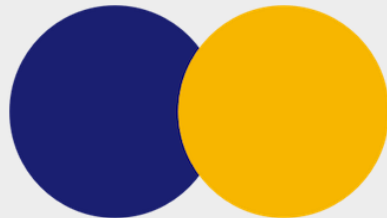
HubSpot



#00A4BD

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VISA



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#F7B600



#004883

#E22934

PayPal



#012169

#253B80

#169BD7



mastercard.



#EB001B

#FF5F00

#F79E1B



#009A00

#99CC00

#FFFF02

FOR PACKAGING PRODUCTS

Colours on packaging ...

- ❖ May cause apprehension and even rejection by customers.
- ❖ Carries intrinsic meaning that becomes central to the brand's identity.
- ❖ Strategies: using colours traditionally associated with the product itself (such as green for mint or brown for cola) vs. using new colours not directly related to the product as a tool to surprise the consumer.

SOME MARKET FAILURES...



THE SENSE OF TOUCH



Consumer choosing vegetables in a local market based on her choice of tactile sensations.

MUSIC AND SOUND AMPLIFICATION IN THE RETAIL STORE

Hearing is another sense influencing the emotions. Music therefore represents an inherent element within the tools of visual merchandising. Music can affect not only the time spent in the store, but also an overall satisfaction of customers at the point of sale.

Music brings numerous advantages:

- Personnel acting more relaxed and friendly towards customers
- Encouraged customers spending more time in the shop
- Music plays a role while deciding on the choice of the store
- Music can help customers to overcome stress situations (e.g. waiting at the cash desk)

HEARING-PRACTICAL IMPLICATION

➤ **Retailer's opinion on music in store:**

90% recommend other sellers to play music in their stores

76% believe they can positively influence customer behaviour

74% believe that music makes customers happier

73% believe that music will enhance the brand image

63% say that customers spend more time in the store

61% agree that music enhances employee productivity

Based on Music Works – Impact of music in retail chains, 2009-2010

HEARING-PRACTICAL IMPLICATION

➤ Customer's opinion on music in store:

84% prefer music over silence

23% would be willing to pay 5% more for the product

45% claim that they would gladly recommend the store to friends and family

55% are more likely to come back again

72% feel that store is more attractive

72% believe that good music will significantly improve store image

Based on Music Works – Impact of music in retail chains, 2009-2010

AROMA OR SCENT IN THE SHOP

- Suitable fragrance can influence customer's emotions and behaviour, therefore sellers try to attack another one of them - the smell - through aroma marketing.
- Correctly selected scents can enhance the experience from shopping, but can also act itself as an impulse to start shopping
- Results of a survey confirmed that:
 - 75% of our emotions are generated based on smell
 - Up to 80% of purchase decisions are impulsive
- ❖ Interesting information is that we remember only 2% of what we hear, only 15% based on taste, but up to 35% of what we smell. Pleasant scent improves our mood up to 40%, can positively influence the desire for specific product and customers are even in such case willing to pay more.

PRACTICAL EXAMPLES IN PRODUCT AND SERVICE SEGMENT

Samsung

- ✓ SAMSUNG, one of the largest industrial corporations in the world, conducted a small marketing investigation. During the presentation of the new collection of household appliances, a brand fragrance designed specifically for SAMSUNG has been "tested". The testimonials after the show were the most positive. It was conducting a test of its new signature fragrance in its Samsung experience concept store. People were staying in the scented room for about 11 minutes longer than usual (Strategistmedia, 2015).

SAMSUNG

Source: Strategist media, 2015. Getting into consumer's mind with scent marketing.

PRACTICAL IMPLICATIONS

New Balance shoe store

- ✓ In Beijing, a consulting firm introduced Chinese shoppers to the U.S. brand through a sensory store experience. A nostalgic wood and leather scent was used to convey the heritage and craftsmanship of the brand.
- ✓ Shoppers spent twice as much money as compared to similarly sized stores elsewhere; the atmosphere induced them to linger longer (Equal Strategy consulting firm, 2016).



Source: Equal Strategy Consulting Firm, 2016.

PRACTICAL IMPLICATIONS

Rolls-Royce

- ✓ In England, buyers began complaining in the mid-1990 that the new models just did not lie up to their earlier models. The company went to work to track down the problem. Rolls Royce reproduced the scent of his big seller, the 1965 Silver Cloud, and sprays it under the seats to recreate the scent of this classic 'Roller'. Rolls Royce has been known to use scent in their showrooms, alongside their beautiful cars. They reconstructed the classic scent, and now spray it under the seats of new vehicles (Quimby Press).



Source: Brumfield, C.R., 2008. Whiff! The revolution of scent communications in the information age. NY, USA.

PRACTICAL IMPLICATIONS

KFC

- ✓ Research was done on the influence of aroma on guests. KFC got a good kick out of a spike in sales after they have invaded people's homes with the irresistible scent of their unique, one-of-a-kind spices and pulled them into their restaurants to pay them money for the real thing.
- ✓ 46.3% felt exciting, 31.3% were happy, 12.7% felt nothing, 9.0% were relaxed.
- ✓ KFC is piloting an 'scent-focused' campaign that delivered food filled mail to corporate mail rooms at the lunch time mail drop. The mail was contain chicken, a side item, and a biscuit aimed to release the aroma of fried chicken throughout the office and trigger the cravings of busy cubicle dwellers (Latasha et al., 2016).



PRACTICAL IMPLICATIONS

Cadillac

- ✓ In USA the new-car smell, the real scent of factory freshness, is no longer just a project. General Motors recently revealed that its Cadillac division had engineered a scent for its vehicles and has been adding it into the leather seats.
- ✓ The scent was created in a laboratory, was picked by focus groups, and is now the aroma of every new Cadillac put on the road (Hakim, 2003).



Source: Hakim, D., 2003. *New luxury car specifications: Styling. Performance. Aroma.* The New York Times.

PRACTICAL IMPLICATIONS

Citroën C4 perfume diffuser programme

- ✓ Citroen C4, offering as standard a scent-diffuser in the ventilation system and a range of nine different scents; customers may choose vanilla, lavender or citrus odour. A feature of the C4 is based on the fact that smells can have a significant effect on mood and sense of well-being, very pleasant environment for users of the C4; the perfumes also have ability to inspire an environment that is favourable to safe driving. Citroen test marketed the idea of perfume diffuser kit with a special edition Citroen C3 in 2003; the C3 Buddha Bar, which offered five difference fragrances based on the theme of Feng-Shui.



Source: Hanlon, M., 2005. Citroen adds a sense of smell to the new C4.

PRACTICAL IMPLICATIONS

Nivea: "Nivea-smell of summer" and "Buy one, get one free"

- ✓ Aromatization in the commercial was first used by NIVEA in Germany; before a film in a cinema, during the commercials depicting the seashore and resting people, the aroma of the sunscreen was sprayed around the hall, and the advertisement was completed with the inscription: 'Nivea- smell of Summer'. Recall of the ad increased by 515% over viewers who had seen the ad without the scent.
- ✓ Another scent practice was also conducted as the branded scent bags for NIVEA were available in almost 1000 drug stores (Digital marketing glossary, 2015; Smartnose, 2016; Strategistmedia, 2015).

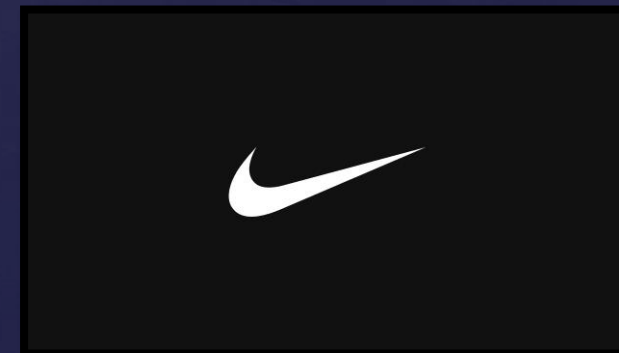


Source: Digital Marketing Glossary, 2015. What is scent marketing definition?

PRACTICAL IMPLICATIONS

Nike shoes

- ✓ An experiment conducted, two identical pairs of Nike running shoes were placed in two separate, but identical, rooms; one room was infused with a mixed floral scent and the other was not. Test subjects inspected the shoes in each room and, then, answered a questionnaire.
- ✓ 85% customer's preferred the shoes displayed in the room with the fragrance and also estimated the value of the scented shoes on average to be \$10.33 (9.48 €) higher than the pair of shoes in the unscented room (Aromaone, 2016b; Prarthana, 2014).



Source: Prarthana, K., 2014. *Multisensory marketing: creating sustainability perspective in various sectors.*

PRACTICAL IMPLICATIONS

California milk processor: "Got Milk? Campaign"

- ✓ In a campaign intended to boost US sales of milk, the California board set up a device that emitted the fragrance of fresh-baked chocolate chip cookies from advertisements posted in San Francisco bus shelters.
- ✓ Thus, bus users complained that the scent was inappropriate and city officials ordered the ads to be removed (Kimmel, 2012).



Source: Kimmel, A., 2012. *Psychological foundations of marketing*. Routledge, New York, NY, USA.

PRACTICAL IMPLICATIONS

Lipton tea brand

- ✓ In the Czech Republic the Lipton company launched an 'aroma ad'. They installed 3D pyramids from fruits, which look like bags of Lipton on the bus stations in Anděl and Florenc (Prague). There, an intensive tea fragrance was sprayed at 5 minutes intervals (Media Guru, 2012).



Source: MediaGuru. 2012. Lipton podporuje čaje netradičními zastávkami.

PRACTICAL IMPLICATIONS

Orange Slovakia

- ✓ In 2012 in the shopping mall Aupark used specific aroma to increase shopping experience and connect brand with odour (Strategie, 2012).



PRACTICAL IMPLICATIONS

Singapore Airlines

- ✓ This company uses a scent called Stefan Floridian Waters to perfume the cabins of its airplanes.
- ✓ SA towels and lounges are perfumed with the scent of flowers (Bervers, 2013; Gains, 2013; Klara, 2012).

SINGAPORE
AIRLINES



Source: Klara, R., 2012. *Something in the air*. In a growing trend, retailers are perfuming stores with near-subliminal scents.

PRACTICAL IMPLICATIONS

British Airways: "Making flying special"

- ✓ In fact, since 1999, British Airways (BA) has been scenting its business class lounge at Heathrow Airport with the smell of freshly cut grass and the ocean.
- ✓ BA was also a sponsor of the Fragrance Foundation's 2011 Jasmine Awards. It was only natural for them to take the leap into in cabin scent marketing (O'Keefe, 2013).



BRITISH AIRWAYS

Source: O'Keefe, A., 2013. *Scent marketing at British Airways.*

PRACTICAL IMPLICATIONS

Dunkin' Donuts: "scent of coffee on Seoul buses"

- ✓ The company Dunkin' Donuts launched a campaign in South Korea, known as Flavour Radio. Air fresheners were installed on commuter buses in Seoul to lure in customers to their stores.
- ✓ These machines would release the aroma of Dunkin' Donuts coffee into the air as the sound of the company's advertisement was simultaneously played on the buses speakers. When the radio advertisement ended, the bus conveniently stopped close to a Dunkin' Donuts store.
- ✓ Coffee shops in Seoul increased by 16% their sales and especially the sales of Dunkin Donuts by the bus stops in Seoul increased by 29% (Aromaone, 2016).



Source: Brumfield, C.R., 2008. Whiff! The revolution of scent communications in the information age. NY, USA.

PRACTICAL IMPLICATIONS

Omni hotels: "scratch-and-sniff tags"

- ✓ In 2006, the company Omni was pioneer in offering sensory branding as part of their public space amenities with the use of a green tea and lemongrass-infused scent in their lobbies and cappuccino-and mochaccino infused scenting in their coffees.
- ✓ The guests at Omni hotels received the papers with the patches smelling of blueberry muffins to encourage muffin purchases at the Starbucks located in the hotel lobbies (Ambius, 2016).




Source: Ambius, 2016. *The smell of success.*

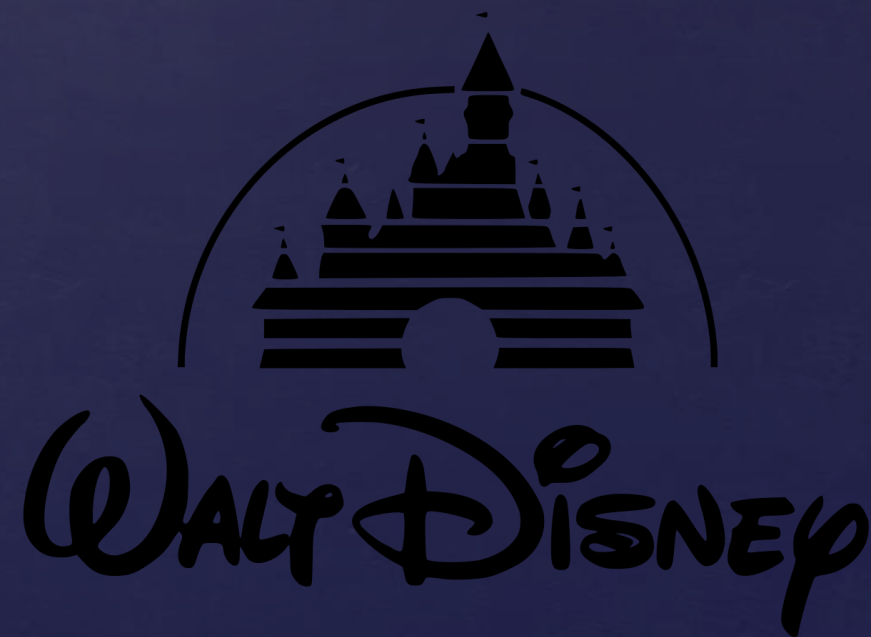
PRACTICAL IMPLICATIONS

Disney Corporation: "Smellitzer"

- ✓ 'Smellitzer' is a device that shoots out carefully engineered scents the way a howitzer sprays bullets, a method for sequentially directing at least two different scents from a gaseous scent-emitting system, according to a US patent issued in 1986.
- ✓ Haunted Mansion is suitably dank and musty, and that the Pirates of the Caribbean ride evokes the smell of the sea (Keenan, 2014).



Disney



PRACTICAL IMPLICATIONS

Nature et Découvertes

- ✓ The store atmosphere plays a prominent role; most consumers are stimulated by smell. Before consumers enter the store, a cedar smell is distributed. Consumers are first attracted by this scent, and then by the product range. Cedar scent was chosen because the smell of wood is closely connected with nature and represents a brand identity (Krofiánová, 2008).



Source: Krofiánová, D., 2008. Jak působit na všech pět smyslu zákazníka? (How influence on all senses of customer?).

PRACTICAL IMPLICATIONS

Apple computers

- ✓ Buyers of Apple computers, iPhones and other products, know them too well, even the smell of a new device.
- ✓ This very specific smell is rumoured to come from inside the devices, but some have suggested that the packaging is responsible for it. However, the plastic iPhone has the same smell as the aluminium MacBook, so the scent is probably not added to the plastic.
- ✓ Apple has never owned up to these tactics, but an Apple Mac scent has been produced by the Air Aroma company, combining the smells of cardboard, ink and other ingredients (Bever, 2013).



PRACTICAL IMPLICATIONS

Kraft Foods

- ✓ It sponsored a special holiday issue of People magazine.
- ✓ Five of its ads in the issue allowed readers to rub a spot to experience the smell of a product being advertised, such as Chips Ahoy and Philadelphia Cream Cheese (Solomon, 2010).



Source: Brumfield, C.R., 2008. *Whiff! The revolution of scent communications in the information age*. NY, USA.

PRACTICAL IMPLICATIONS

Coty: off-screen activity

- ✓ The international campaign of a cosmetics group 'Coty' was done in a popular chain of cinemas in the Czech Republic, Slovakia, and Hungary.
- ✓ Spots were projected on movie screens and were supported by non-standard off-screen activities relying on techniques aroma marketing. Coty spots were placed on 316 movie screen in 22 cities in three European countries.
- ✓ The campaign was aimed at promoting perfumes in foyer cinemas. This was parallel added by ads of Calvin Klein, Chloé, Davidoff, Guess, David Beckham and Katy Perry perfumes. The results of this promotion are not published by Coty (Marketingové noviny, 2014).



PRACTICAL IMPLICATIONS

Sony: "to smell what the actor smells at that point in the movie"

- ✓ The company Sony joined the fragrance battle with using a scent combining an admixture of mandarin and vanilla. This flavour was chosen not by chance, but because the company is interested in attracting the female audience. This invention will allow olfactory content to be overlaid onto the content of video games (Powell, 2014; Strategistmedia, 2015).



Source: Powell, M., 2014. The power of smell: scent marketing meets the future of gaming and internet surfing.

PRACTICAL IMPLICATIONS

Digital flex media leader in CD and DVD

- ✓ Announced the launch of a line of Rub'n Smell discs. These discs help businesses, marketers and advertisers to cost-effectively connect and influence their target markets with scent marketing. The scent was incorporated into the ink and varnish was used to coat the company's disks.
- ✓ Scents such as fresh fruit, flowers, coffee, pizza, chocolate and custom scents and fragrances supplied by clients were used on the disks. The scent was activated when rubbed and lasted for a few seconds each time.



PRACTICAL IMPLICATIONS

Bloom grocery stores: "smell of grilling steak"

- ✓ Designed by ScentAir Ltd. in Mooresville, NC, USA.
- ✓ Billboard displays impaled piece of beef; inside this billboard a fan was installed that scatters to the surroundings the smell of black pepper and charcoal, which customers use when cooking the beef (Frucci, 2010).



PRACTICAL IMPLICATIONS

LG chocolate phone

- ✓ The campaign used chocolate-scented point-of-purchase store displays, accomplished by embedding plastic, scent-infused strips into the displays and by adding a scented varnish into the information posters.
- ✓ Bowls of Hershey Kisses chocolates also were placed on the counter, next to the phone displays, although the chocolate scent was inconsistent with the mobile phone product category.



Source: Krishna, A., 2010. *Sensory marketing: research on the sensuality of products*. Taylor and Francis Group, Abington, UK.

CLIMATE CONDITIONS

- Climatic conditions (temperature, humidity, dust and ventilation) are an integral part of the shops internal environment. The greatest influence on the shoppers has the temperature.
- Excessive heat can cause the fatigue of shoppers, which can reduce their concentration on the goods. Conversely, the low temperature shortens the time spent in the store.



APPLICATION OF NEUROMARKETING IN VISUAL MERCHANDISING

Neuroscience research provides relevant answers to the questions in the field of visual merchandising and communication at the point of sale:

- Attractiveness of the shop's exterior (storefronts, entries, banners)
- Attractiveness of the shop's interior (design, atmosphere, illumination)
- Attractiveness of merchandising and its tools (displaying, organization of goods, POP and POS materials)
- Consumer behaviour and decision-making process at the point of sale (immediate vs planned purchases)

Behavioural studies in natural purchasing environment:

- Eye tracker
- EEG

➤ Application of neuromarketing in visual merchandising in the retail can contribute to uncovering and understanding of real consumer preferences in grocery stores and significantly increase their competitiveness.

APPLICATION OF NEUROMARKETING IN SERVICE

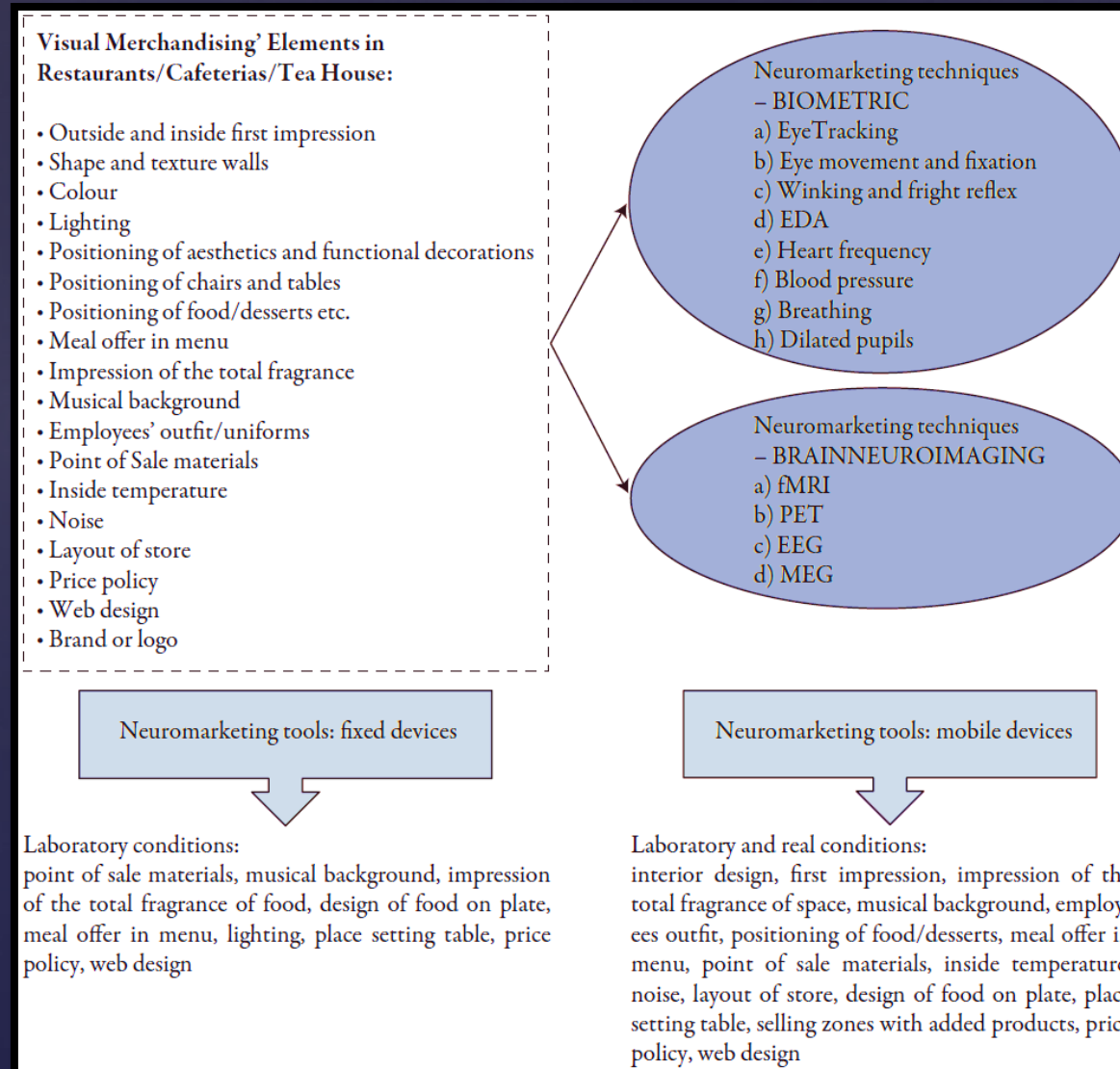
- Restaurants are great test labs for testing neuromarketing techniques. It's easy to change offerings, menus, and pricing, and one gets immediate feedback on what's working and what's not.
- Suitable biometrics methods must be selected:
 - Heart rate variability monitoring – HRV
 - Eye movement – Eye tracker
 - Facial expressions – FaceReader
 - Monitoring electrical brain activity – EEG
- Neuromarketing can measure consumer perception of interior decorations, chairs and tables design, positioning as well as location of food/desserts in showcase, that are largely automatic, emotional and outside host conscious awareness.

APPLICATION OF NEUROMARKETING IN SERVICE

- ✓ In restaurants, Neuromarketing has had a great success using colours to increase quest's appetite even further, even to find a way to make consumers leave fast.
- ✓ Some examples of this are red and yellow (colours that increase appetite), a very strong lighting as well as a very hard sound makes guest decide to eat quickly and leave.
- ✓ In case of music is important to consider the best possible matching of the intensity, frequency, music genre and tempo.



MAJOR AREAS WHERE NEUROMARKETING IS BEING APPLIED



VISUAL MERCHANDISING SUCCESS FACTORS

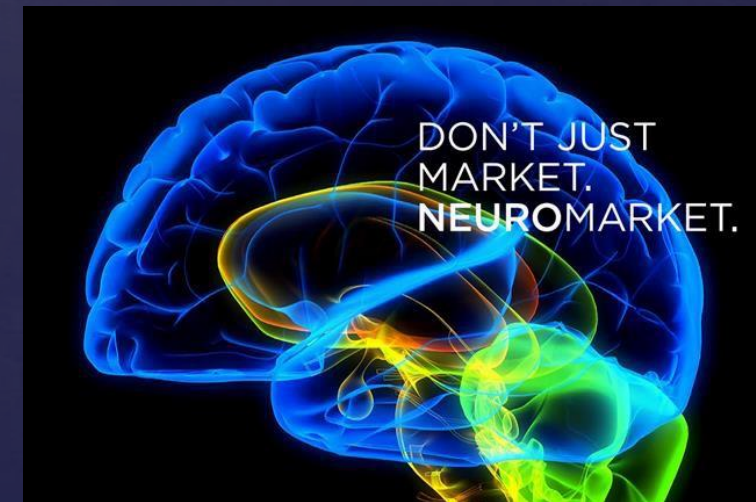
Visual Merchandising Elements	The Most Measured Emotions in Consumer Behavior and Neuromarketing Techniques in Practice of Restaurant, Cafeteria, Tea House
Outside and inside first impression	Exterior and interior (Eye tracking, EEG, GSR, EKG, laboratory: fMRI, MEG, PET, FMA)
Shape and wall texture	Design and materials (Eye Tracking, testing of forced withdrawals)
Colours	First impression, combination with lighting (Eye tracking, EEG, GSR, EKG, laboratory: fMRI, MEG, PET, FMA)
Lighting	Technical types and colours (Eye tracking, EEG, GSR, EKG, laboratory: fMRI, MEG, PET, FMA)
Positioning of aesthetics and functional decorations	Design and materials (Eye Tracking, testing of forced withdrawals)
Positioning of chairs and tables	Visible exposition of products and its right location (Eye tracking, EEG, GSR, EKG, laboratory: fMRI, MEG, PET, FMA)
Positioning of food/ desserts	Visible exposition of products and its right location (Eye tracking, EEG, GSR, EKG, laboratory: fMRI, MEG, PET, FMA)
Meal offer in menu	Price, weight, photos, allergens, visual background (PET, EEG, facial expression, eye movement and fixation, blood pressure, dilated pupils)

VISUAL MERCHANDISING SUCCESS FACTORS

Visual Merchandising Elements	The Most Measured Emotions in Consumer Behavior and Neuromarketing Techniques in Practice of Restaurant, Cafeteria, Tea House
Musical background	Different style of music or sound inside (facial expression, heart frequency, fMRI, EEG)
Employees' outfit/ uniform	Number of staff, behaviour, image, outfit (Eye tracking, EEG, GSR, EKG, laboratory: fMRI, MEG, PET, FMA)
Point of sale materials	Design and materials (Eye tracking, testing of forced withdrawals), level of attention (Eye Tracking, EEG), emotional reactions (EMG, analysis of facial expression, EEG)
Inside temperature	Changing the temperature per day
Noise	Measured with mobile application
Layout of place	Product range and price offering (Eye tracking, EEG, GSR, EKG, laboratory: fMRI, MEG, PET, FMA)
Price policy	Discount or prices in selling zones, sale offer on the Table (Eye tracking, EEG, Face Reader)
Web design	On-line advertising (Eye tracking, facial expression, EMG), using adaptation of web pages (Eye tracking, EMG, EEG, fMRI)
Brand or logo	fMRI, EEG, emotions affective priming, EMG, Face Reader, behavioral studies

REASONS WHY TO APPLY NEUROMARKETING

- **Emotional-cognitive processing:** neuromarketing can help to analyze the attention and cognitive processes which take place in the brain.
- **Neurolinguistics:** to optimize text and language in menu or drinking card.
- **Neuroscientific personality research:** to identify certain consumer types.
- **Neuroscientific gender/ age research:** to determine the affects of differences in thinking style, emotional structure and behaviour for marketing purpose.
- **Testing neuromarketing**
- **Identify advertising elements:** that trigger positive feelings, assess the logo and brands, etc.
- **Help avoid elements:** that should not be present in the communication.



REASONS WHY TO APPLY NEUROMARKETING

- **Selection of visual features:** as well as the timing and selection of appropriate media.
- **Determine neural processes:** are involved in the brain during the processing of brand information.
- **Potential to identify the causes of purchasing disorders such as compulsivity:** through the listed visual merchandising elements in restaurants, coffee or tea houses.
- **Determination of prices:** a similar price level can be regarded in two different ways by the consumer.
- **Underlying consumption loyalty:** in a study using fMRI, consumers had to choose the service brands they would like to visit and spend the time.



CONSUMER AND HIS SENSE IN SERVICE MARKETING

Sight: From using colours for their psychological triggers, to leveraging lighting, symmetry, balance, contrast, and focus to direct and control where a customer looks and for how long, it's one of the most fascinating components of merchandising.

Sound: The music played in store has a profound yet subtle effect on how customers behave in the store.

Touch: The feeling, that consumer feels, is different with various types of flooring: rubber, carpet, ceramic or marble.

Smell: Smell is considered to be a fast track to the system in brain that controls emotion and memory, two very prominent factors behind why consumers choose one brand over another.

Taste: Taste can work magic in the business of selling consumables, giving people the chance to taste and sample before they buy is the equivalent of letting people try on clothes, a general and effective best practice.

VISUAL MERCHANDISING IN SERVICES

Visual merchandising engages all the senses, such as hearing, sight, scent, touch and taste. The more senses we engage, the more people respond to our operation, stay longer and buy more.

Related fields in the service sector:

- Tradeshow / Exhibition design
- Food presentation
- Product styling
- Events
- Malls
- Restaurant planning
- Point-of-sale materials



VISUAL MERCHANDISING IN SERVICES

Ambient variables:

- **External variables**; Size of building, entrance, garden, exterior signs
- **General interior variables**; flooring and carpeting, colour schemes, temperature
- **Lay-out and design variables**; space design and allocation, placement of merchandise
- **Point of purchase and decoration variables**; pictures, artwork, certificates
- **Human variables**; employee characteristics, employee uniforms, privacy

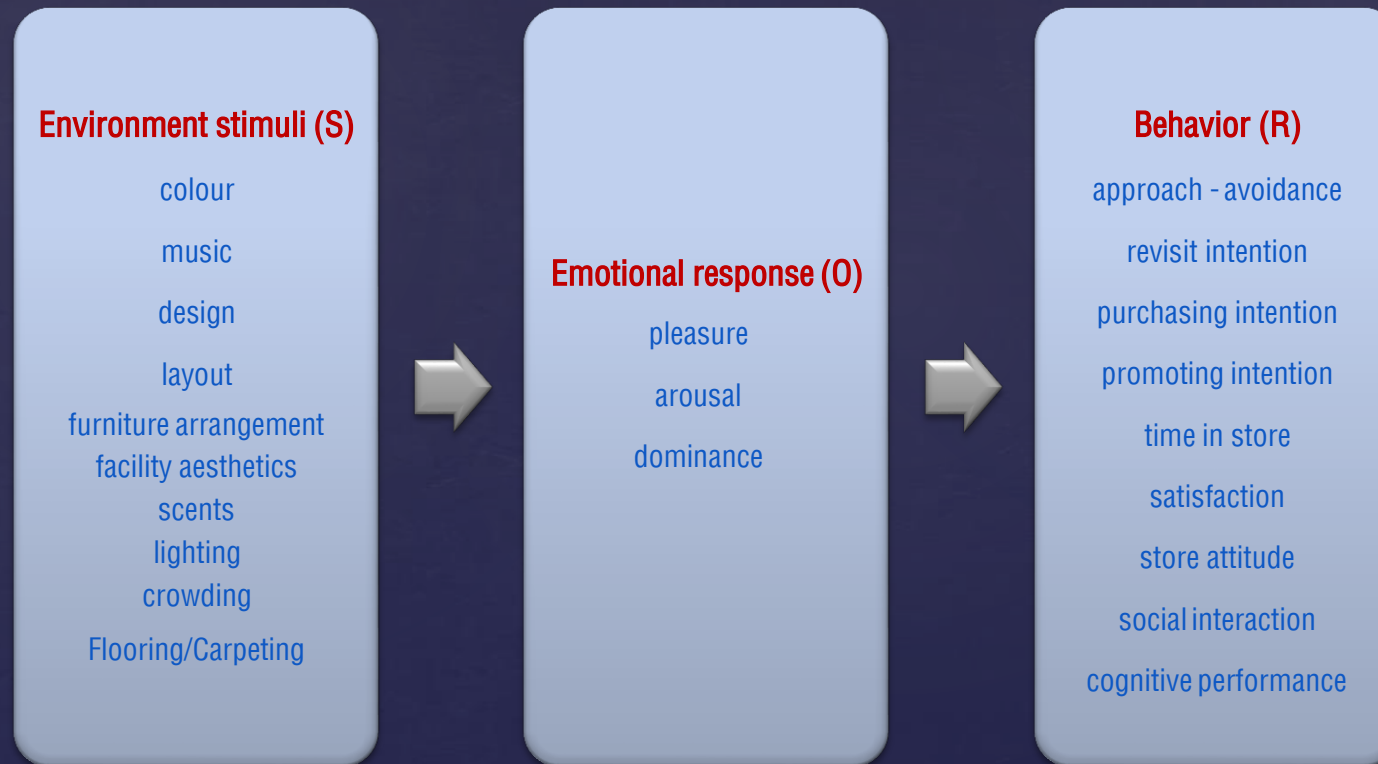
Components of the Physical Environment:

- **Ambient factors**; Air quality, noise, scent, cleanliness
- **Design factors**; aesthetic, functional
- **Social factors**; customers, service personnel



VISUAL MERCHANDISING IN SERVICES

To explain the impact of these factors on behaviour of customers in the restaurant, one can use **SOR** model modified by Mehrabian and Russell:



SUMMARY

In this section the following topics were discussed:

- ✓ The definition of Merchandising
- ✓ Visual merchandising
- ✓ Sensory merchandising; climate, aroma, hearings, colours
- ✓ Application of neuromarketing in visual merchandising
- ✓ Application of neuromarketing in service
- ✓ Reasons why to apply neuromarketing
- ✓ Ambient variables
- ✓ Components of the physical environment
- ✓ SOR model

谢谢

TEŞEKKÜR EDERİM

ΕΥΧΑΡΙΣΤΩ

БЛАГОДАРИЮ ВАС

MERCI

شكرا جزيل

GRACIAS

GRAZIE

متشكروم

GRATIAS TIBI

ANY QUESTIONS?

DZIĘKUJĘ CI

DANKE

THANK YOU

SALAMAT

DANK JE

ΠΑΚΚΑ ΠΕΡ ΦΥΡΙΡ

நன்றி
ありがとうございました

JE VOUS REMERCIE

고맙습니다