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**Application of neuromarketing techniques in FMCG industry**

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## 1 INTRODUCTION

As the market expands and the competition for goods, products and services increases. Due to a large number of choices, consumers have become avoidant and fickle in their choices. Neuromarketing using neurophysiological tools that can monitor physiological signals of consumer behavior can help to promote the growth of commercial goals in such circumstances. According to Banerjee (2019), the foundation of neuromarketing can be traced back to the 1957 book “The Hidden Persuaders” (Vance Packard). Packard explored how advertising agencies employed psychological methods to tap into consumers' subconscious desires, persuading them to purchase the products being promoted (Packard, 1957)<sup>1</sup>.

Later, in 1984, David W. Stewart's “Physiological Measurement of advertising effect: an unfulfilled promise” emphasized that physiological measures could reveal individuals' authentic reactions to marketing information. This marked the beginning of ongoing investigation and advancements in the field of neuromarketing<sup>2</sup>.

The term “neuromarketing” itself was first coined by Ale Smidts, a professor at the University of Erasmus in Rotterdam. It referred to the application of neuroimaging techniques in market research (Smidts, 2002)<sup>3</sup>. In the late 1990s, Harvard professor Gerald Zaltman developed the Zaltman Metaphor Elicitation Technique (ZMET), a groundbreaking research method that combined neuroscience, psychology, and marketing (Zaltman, 2003). ZMET aimed to uncover consumers' deep-seated, subconscious thoughts and emotions by analyzing their visual and verbal metaphors<sup>4</sup>. This innovative approach laid the groundwork for future neuromarketing techniques (Goyal et al., 2021). Professor Gerald Zaltman emphasized that purchasing decisions are often motivated by human emotions that they place on a particular product rather than solely brand preferences or prices<sup>5</sup>.

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<sup>1</sup> From book “*The hidden persuaders*” (1<sup>st</sup> ed., p.29) by Vance Packard, 2017

<sup>2</sup> From “*Physiological measurement of advertising effects*” by Wiley Online Library, 1984 (<https://doi.org/10.29173/eureka7786>)

<sup>3</sup> From “*Neuromarketing: the next step in market research?*” by Christopher R Madan, 2010 (<https://doi.org/10.29173/eureka7786>)

<sup>4</sup> From book “*Using the Zaltman Metaphor Elicitation Technique to understand brand images*” (vol. 21, p. 501-507) by Robin Higie Coulter and Gerald Zaltman

<sup>5</sup> From “*The Subconscious Mind of the Consumer*” (And How To Reach It) by Manda Mahoney, 2003 (<https://hbswk.hbs.edu/item/the-subconscious-mind-of-the-consumer-and-how-to-reach-it>)

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The investigation will be carried out using the practice of Magnum, Small and Galmart supermarkets since this chain is considered the largest FMCG chain in Kazakhstan.

Neuromarketing can help FMCG companies create more engaging and persuasive marketing campaigns by understanding the emotional and cognitive factors that drive consumer behavior, to create more targeted and personalized marketing campaigns, addressing individual consumer preferences and needs.

By understanding how consumers perceive and respond to different product attributes, FMCG companies can develop products that better cater to consumer preferences, ultimately driving sales and market share and to optimize in-store marketing efforts, such as product placement, shelf positioning, and point-of-sale displays, to maximize consumer engagement and sales.

### *1.3 Research Objectives and Questions*

The purpose of the study: To determine the impact of neuromarketing on sales of FMCG sector in supermarkets.

#### *Research objectives:*

1. Estimate the theoretical foundations of neuromarketing and its application in the retail industry.
2. Identify the most effective neuromarketing techniques used to increase sales of everyday products in supermarkets.
3. Develop a questionnaire to determine the impact of neuromarketing techniques on the behavior of buyers in supermarkets.
4. Process and analyze the obtained data in order to determine the degree of influence of color, sound and smell on the sale of everyday products in supermarkets.
5. Formulate recommendations for supermarkets on the use of neuromarketing techniques in order to increase sales of everyday products.

#### *The research questions are as follows:*

1. How well-suited are neuromarketing approaches to the study and forecasting of FMCG consumer preferences and behavior?
2. How do the main socioeconomic, cultural, and political influences on consumer responses to neuromarketing stimuli in the FMCG industry vary from those in other markets?

3. What ethical considerations should be taken into account when implementing neuromarketing techniques in the FMCG sector in Kazakhstan, and what challenges might companies face in the process?

4. How can fast Moving Consumer Goods companies in Kazakhstan use the results of neuromarketing research to inform their marketing plans, product development procedures, and competitive advantage?

5. In comparison to conventional marketing techniques, how much is the success of FMCG items in the Kazakhstani market influenced by neuromarketing strategies?

6. How do consumers in Kazakhstan perceive the use of neuromarketing techniques in the FMCG sector, and does this perception affect their purchasing decisions and brand loyalty?

#### *1.4 Purpose of the research*

The authors aim to explore the current status of neuromarketing in the FMCG sector. To investigate its impact, to identify the level of development and application. Comparison with traditional marketing methods will reveal its weaknesses and strengths. Study the underlying psychological and physiological factors that influence consumer behavior and decision making in the context of the FMCG sector. Advices and recommendations will be presented that marketing companies should consider. They will be in a better position to comprehend their target market and enhance their marketing initiatives.

#### *1.5 Hypothesis*

This research will be based on several hypotheses.

*Hypothesis 1: Not all companies have adopted neuromarketing in their business.*

*Hypothesis 2: Only leaders and large companies use neuromarketing.*

*Hypothesis 3: Neuromarketing in sector FMCG has a positive impact on sales.*

Explanation the concept of neuromarketing is given in literature review. Section 3 describes the methodology of the research. Section 4 presents the major findings of the research conducted. Finally, Section 5 provides a conclusion.

## 2 LITERATURE REVIEW

### 2.1 Theoretical Background of Neuromarketing

#### 2.1.1 Definition and Evolution of Neuromarketing

Neuromarketing, a relatively recent concept (emerging primarily in 2002), has been rapidly gaining traction among marketers. This marketing technique utilizes brain activity measurements to help researchers and scientists enhance their predictions of consumer behaviour and gain an unparalleled understanding of brain function.

Neuromarketing is a science formed at the intersection of marketing and neuroscience. In other words, it uses neuroscientific techniques, specifically those related to cognitive research, in the context of marketing (Robaina-Calderín and Martín-Santana, 2022)<sup>6</sup>. The goal of this discipline is to create a robust neuropsychological framework that helps explain consumer behaviour by integrating neuroscientific approaches, behavioural theories, and experimental models recognized in consumer psychology (Plassmann et al., 2012)<sup>7</sup>. Furthermore, neuromarketing expands our comprehension of consumer responses to marketing stimuli by examining brain processes (Bakardjieva and Kimmel, 2017)<sup>8</sup>. This unique blend of neuroscience, psychology, and marketing contributes to the field's multidisciplinary nature (Royo-Vela and Varga, 2022)<sup>9</sup>.

As neuroscience progresses and its applications extend to marketing and advertising, marketers are increasingly utilizing various neuromarketing tools. Although it's infeasible to investigate every tool, this paper seeks to examine a selection of them, particularly in relation to Fast Moving Consumer Goods (FMCG), with real-world examples. Successful brands often employ “multisensory stimulation,” leveraging smell, taste, and visual elements to captivate consumers. Interestingly, incongruities between these sensory cues can occasionally enhance a brand's appeal to consumers (Anbazhagan, 2020).

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<sup>6</sup> From “*A review of research on neuromarketing using content analysis: key approaches and new avenues*” by Robaina-Calderín and Martín-Santana, 2022 (10.1007/s11571-021-09693-y)

<sup>7</sup> From “*Consumer neuroscience: Revealing meaningful relationships between brain and consumer behavior*” by Hilke Plassmann and Uma R Karmarkar, 2012 (10.1017/CBO9781107706552.006)

<sup>8</sup> From “*Neuromarketing research practices: Attitudes, ethics, and behavioral intentions*” by Bakardjieva, E., & Kimmel, A. J., 2017 (<https://doi.org/10.1080/10508422.2016.1162719>)

<sup>9</sup> From “*Unveiling Neuromarketing and Its Research Methodology*” by Royo-Vela and Varga, 2022 (<https://doi.org/10.3390/encyclopedia2020051>)

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In 2003, Read Montague, a professor of neurology at Baylor College of Medicine, conducted pioneering research in neuromarketing that significantly contributed to the field. His study, commonly referred to as the “Pepsi vs. Coke” experiment, sought to understand the neural basis of brand preference and decision-making in consumers (Montague, 2006).

### *2.1.2 Primary and Secondary data*

#### **Primary data**

Primary data is information that a researcher gathers from first-hand sources. A primary source is acquired initially from original source. It isn't affected by the opinions or judgments of others. Primary data are collected through: autobiographies, experiments, diaries, movies and interviews. In this research authors conducted several in-depth interviews, surveys, using it as a primary data collection method.

#### **Secondary data**

Secondary data refers to any dataset gathered by someone, and it involves using already existing data. Secondary data includes: essays, journals, reviews. Information obtained from studies, or tests carried out by other persons or for other study.

### *2.1.3 The multidisciplinary nature of neuromarketing*

The term “neuromarketing” combines the concepts of “neurobiology” and “marketing”. Smidts believes that neuromarketing allows one “to better understand the consumer and his reaction to marketing stimuli by directly measuring the processes in the brain” and to increase the “effectiveness of marketing methods by studying the reaction of the brain”.

Neuromarketing determines the consumer's attitude to the product at the subconscious level, before he realizes his preferences, and suggests methods of influencing buyers.

### *2.1.4 Key neuromarketing techniques and methods (e.g., eye-tracking, facial coding, EEG)*

Marketers may enhance their plans by utilizing these approaches to generate more successful commercials, product designs, and overall marketing experiences that resonate with customers. (Table 1).

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According to Zaltman, the use of neuromarketing technologies in entrepreneurial activity involves 4 stages (Zaltman, 2003)<sup>10</sup>.

The entrepreneur formulates the task - the search for the target audience, the study of the brand's position in the market, and others. In the second stage, the neuromarketing company gives advertising agencies a description of the target audience and selects potential consumers for special research. In the third stage, the investigated consumers are invited to a specially equipped laboratory for research using special, high-precision equipment. With the help of devices, neurophysiological changes are recorded in terms of parameters in the human body:

- eye trackers register changes in eye movement and track the coordinates of the point of view (exactly the area where the consumer is looking) to study the interest and attention of the participants in the experiment,
- a special high-resolution camera helps to collect micro mimic data to accurately determine emotions (fear, surprise, irritation, joy, and others),
- the polygraph is used to record heartbeat, respiration, and cardiovascular rhythm indicators and to assess the physical and emotional involvement of exam participants (buyers in the future),
- an electroencephalograph is used to record the bioelectrical activity of the brain.

The fourth stage includes formulating a final conclusion on consumer decision and preferences.

Table 1 Key neuromarketing techniques

Technique	Description
fMRI (Functional Magnetic Resonance Imaging)	A neuroimaging technique that measures brain activity by detecting changes in blood flow. It's used to identify the brain areas activated during exposure to specific marketing stimuli.
EEG (Electroencephalography)	A technique that records electrical activity in the brain using electrodes placed on the scalp. It measures the brain reactions to marketing stimuli in real time and provides information on attention, engagement, and emotional responses.
Eye Tracking	A method that monitors and records eye movements and gaze patterns. It's used to assess visual attention, revealing which elements of an advertisement, website, or packaging design draw the most attention.

<sup>10</sup> From "How Consumers Think : Essential Insights into the Mind of the Market" by Gerald Zaltman, 2003 ([https://www.researchgate.net/publication/31737863\\_How\\_Consumers\\_Think\\_Essential\\_Insights\\_into\\_the\\_Mind\\_of\\_the\\_Market\\_G\\_Zaltman](https://www.researchgate.net/publication/31737863_How_Consumers_Think_Essential_Insights_into_the_Mind_of_the_Market_G_Zaltman))



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Facial Coding	A technique that analyzes facial expressions to assess emotional responses to marketing stimuli. It's used to determine if the intended emotional impact is achieved and to identify areas for improvement.
GSR (Galvanic Skin Response)	A method that measures changes in skin conductance due to sweat gland activity, reflecting emotional arousal. It's used to assess the intensity of emotional responses to marketing stimuli.
Biometrics	A set of techniques that measure physiological responses such as heart rate, blood pressure, and respiration rate. These measurements help to understand the emotional and cognitive responses to marketing stimuli.
Implicit Association Test (IAT)	A psychological test that measures the strength of subconscious associations between concepts, revealing implicit biases and preferences. It's used to explore the unconscious associations between brands, products, and consumer emotions.

Source: (Gill and Singh , 2013)

The influence of sensory systems through specific marketing tools allows companies to affect consumers and develop a form of “conditioned reflex”. This idea was first proposed and implemented by Martin Lindstrom . Five primary areas of influence are identified: color – affecting the visual system, sound – impacting auditory analyzers, scent – influencing olfactory processes, and tactile and taste sensations, which require specific actions from the buyer. Lindstrom believes that the proper use of sensory marketing tools can increase sales volumes. Some research findings are presented below (Table 2), illustrating the effects of these sensory marketing techniques.

Table 2 The effects of sensory marketing techniques

<b>Condition for tool effectiveness</b>	<b>Percentage increase in willingness</b>
Purchase accompanied by pleasant sounds	65%
Pleasant taste of the product	23%
Pleasant scent	40%
Product is pleasant to touch	26%
Product is visually appealing	46%

Source: (Krishna, 2011)

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Music and sounds play an important role in neuromarketing. Marketers use music to create a certain atmosphere in stores or in commercials. Music can influence mood, shopping speed, and brand perception. Audible cues, such as clicks, calls, or voices, can also be associated with certain products or services, evoking emotion and stimulating the desire to buy. According to Julia Dmitriyeva, business consultant and specialist in marketing, analytics, strategies from Astana, some cafes use *the “cut track” effect*. The last 3/5/10 seconds of each tune are cut off.

This effect creates the need to terminate the process. Artificial slip, incompleteness that needs to be addressed. This approach is deliberately applied during peak hours in order to increase the number of landings. Visitors do not want to linger and cannot relax, and therefore quickly leave. Despite the questionable ethics, we recognize the effectiveness of this method.

For a beauty salon, SPA, or retail store, this approach can be devastating. Clients leave without experiencing a sense of satisfaction and relaxation, and intuitively begin to look for alternatives.

If long-term and relaxed contact with customers is important for a business, then musical compositions should smoothly transition into each other. If the goal is to emphasize a short contact, such as a quick and efficient tire change, it is necessary to create noticeable breaks (1-3 seconds) between tracks or a strong contrast in dynamic recordings.

If there are harsh, unpleasant sounds in the space, such as a phone ringing or app alerts, be sure that in the limited space of an office or store, they are at least distracting, and in the worst case, they can lead to a deal breaker. After several such sudden calls, the visitor loses the thread of communication, he is distracted, and he leaves or makes a purchase, but already with irritation. Since this irritation is more emotional than rational, it is problematic to correct the misunderstanding that has arisen.

Tactile perceptions are related to the perception of textures, temperatures and shapes of products or services. Using tactile perception marketers can create emotional context and atmosphere for consumers. For example, the use of soft fabrics or warm materials can evoke a sense of comfort and security, which in turn influences the purchase decision.

It is essential to examine the store environment while keeping sensory experiences in mind. Removing materials that are clingy, scratchy, or unpleasant can potentially improve sales. Conducting an experiment by placing such materials in the background for a week may provide valuable insights into customer reactions.

Paying attention to details, such as using memorable materials in packaging, delivery, take-out services, or business cards, can add an emotional dimension to the purchasing

experience. As one-third of customers rely on touch when making choices, it is crucial to cater to their preferences and provide a variety of tactile experiences.

The presence of roughness and texture, even when not immediately visible, can influence customers' perception. Surfaces that are too smooth or have protrusions can reduce the number of interactions. Glossy finishes should be carefully considered and complemented with other elements to create a balanced and appealing environment.

Visual perception is one of the most important channels for influencing consumers. Marketers use colors, designs, images, and other visual elements to grab attention, create associations, and influence consumer emotions. Visual content can evoke strong emotional responses, which in turn can influence (Baños-González et al., 2020)<sup>11</sup>.

Julia Dmitriyeva:

*“...If you need to focus the audience on a more respectable one and exclude low- and middle-income people from visiting the office/shop, just put a wide, light-colored carpet with a large pile in front of the entrance.*

*If you need a “middle class” too, put a thin, gaudy carpet in dark colors.*

*If your flow of "budget" buyers is lower than desired, pay attention to how the entrance is designed. Even a standard carpet path, or white tiles, or even a light-colored parquet board, limit the first step of these people. It is physically difficult for them to step on and enter, and when they enter, they want to escape as quickly as possible.*

*Why?*

*- You can't walk on carpets in shoes.*

*- My dirty shoes will leave marks on their clean floors.*

*Attitudes, limitations, basic guilt. And you don't care where this nuance comes from, just use it correctly in your business.*

*The lighter the color and the higher the pile, the more respectable are the people who allow themselves to step on it without hesitation.*

*If your space is carpeted, literally and figuratively, there can be no talk of any mass flow of people.*

*If this "carpet" cannot be ruled out, create something to lift the buyer's eye from the floor to the ceiling or the top of the wall. I look at the top - I go in easily”*

Naturally, a skilled architectural designer is crucial for creating the desired ambiance in a space, while the marketer's role is to identify the problem to be addressed and determine the specific goals of the lighting solution. Some potential marketing objectives may include:

1. Directing focus towards specific areas to increase attention and sales of products
2. Encouraging customers to spend more time in the space, leading to higher spending

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<sup>11</sup> From “*Evaluation of Emotional Responses to Television Advertising through Neuromarketing Evaluación de las respuestas emocionales a la publicidad televisiva desde el Neuromarketing*” by Baños-González and Antonio Baraybar Fernández, 2020 (10.3916/C52-2017-02)

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3. Reducing visit duration to increase overall foot traffic
4. Adjusting the emotional state of customers to enhance sales performance or comprehension of information

Possible lighting solutions for a retail environment may involve:

- Employing double lighting to accentuate clearance areas or essential products, ensuring that these zones have brighter illumination
- Avoiding overemphasis on secondary products to prevent a decrease in overall sales
- Creating a sense of muted intimacy, which can be effective in alcohol boutiques, cafes, and restaurants, allowing customers to lose track of time and relax
- Utilizing bright daylight in fast-food zones or dining areas to encourage quick visits and turnover

If the ceiling design does not align with the business objectives, alternative solutions can be considered. For instance, if the goal is to create a sense of smaller space for visitors, placing lamps closer to the floor rather than the ceiling can achieve the desired effect by dimming the upper part of the room.

As Anghel (2019) claims, marketers actively use the results of NLP, in particular, it is possible to single out some psychological techniques by which scientists influence consumers.

Neuro-Linguistic Programming (NLP) is a set of techniques that aim to understand and change human behavior patterns by focusing on the connection between language, cognition, and behavior. Some NLP techniques used in neuromarketing include:

1. Anchoring: Associating specific stimuli
2. Rapport building: employing empathy language, matching tone and tempo of speech, and mimicking body language to build trust and understanding between the marketer and the customer.
3. Reframing: Changing the way a situation or product is perceived by presenting it in a different context, which can lead to a shift in the consumer's attitude or beliefs.
4. Pacing and leading: Gaining the consumer's trust by matching their thoughts and emotions (pacing), and then gradually introducing new ideas or suggestions (leading).
5. The use of metaphors: Utilizing metaphors or storytelling to communicate complex ideas or emotions more effectively.
6. Embedded commands: Incorporating subtle suggestions or commands within a conversation, which can influence the consumer's behavior or decision-making process.

7. Swish pattern: A technique for replacing an unwanted behavior or emotional response with a more desirable one.

8. Visualization: Encouraging the consumer to imagine a positive outcome or experience related to the product or service, which can create an emotional connection and increase the likelihood of purchase.

## *2.2 Neuromarketing in the FMCG Sector*

### *2.2.1 Application of neuromarketing techniques in FMCG product development and Marketing*

In the fast-moving consumer goods (FMCG) industry, establishing brand awareness is a critical aspect of successful marketing execution. Although numerous strategies aim to enhance brand awareness, comprehending consumer brand preferences can be challenging due to their fluctuating opinions. Marketers must identify the factors that influence consumers to favor a specific product in a given situation. Since these factors are not static, organizations must consistently adapt to comprehend consumers' shifting preferences. A tool that continuously assesses customer preferences towards brands is greatly needed. Often, consumer preferences are driven by indirect, unseen forces, commonly referred to as the subconscious mind. This complexity necessitates the application of neuromarketing in the FMCG sector (Thangaraja, 2015)<sup>12</sup>.

Studying consumer orientation in a store helps to determine how they locate specific products and whether they can find them easily. Various tools, such as banners, signs, end-of-aisle displays, and branded blocks, can guide shoppers to the items they need. For instance, research has revealed that additional displays placed on the right side tend to attract the most attention from customers. Examining consumer orientation on shelves helps to determine the time they spend locating desired products and how long they take to make a choice. Research shows that if shoppers struggle to find what they need on the shelf, the likelihood of them making a purchase significantly decreases.

Heatmaps of shelves can reveal which elements on a shelf grab the most attention from consumers. As a result of such studies, some Russian brands had to change not only their shelf placement strategies but also their packaging design. By implementing recommendations provided by neuromarketing experts, spontaneous purchases of those brands' products increased.

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<sup>12</sup> From journal "Fast Moving Consumer Goods distributors' source of information and marketing intelligence system on customer feedback"(vol. 2, issue 1) by Thangaraja. A, 2022

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Investigating consumer attention to point-of-sale (POS) materials helps to determine if in-store advertising is within the shoppers' line of sight, whether they focus their attention on it, and which elements of the advertising material are most appealing to them. By understanding which types of offers and discounts are most appealing to customers, retailers can create more targeted and engaging promotional campaigns that drive sales and customer loyalty. Another area of interest is the impact of store layout and product placement on consumer behavior. Neuromarketing can help identify the most effective layouts and product arrangements that encourage exploration and increase the chances of consumers discovering and purchasing new items.

### *Main neuromarketing tricks used in supermarkets*

Considering in more detail the similarities in the use of neuromarketing tools, we can highlight the most obvious:

#### 1) Non-food essentials are located at the end

Supermarkets place these products at the back of the store so that shoppers who come for bread and essentials go through other departments of the store and buy those goods that they would not notice if they were located at the beginning. However, the smell of freshly baked bread is felt even when entering the store, which affects the olfactory receptors and increases salivation.

#### 2) Arrangement of fruits and vegetables at the entrance

Supermarkets have a department with vegetables and fruits at the entrance to the supermarket, i.e., at the beginning of the shopping area.

#### 3) Calm music and energetic music in the background

When a customer enters a store and hears soothing music, he feels that he has nowhere to rush in this place, and the cycle of hectic everyday life has remained outside the supermarket. In addition, the buyer will be inclined to take a closer look at the goods, which in the end may push the purchase. Also, both supermarkets are changing the playlist to a more energetic one during high-demand hours and before the supermarket closes: firstly, so that customers can shop faster; secondly, to give employees an incentive to serve customers more efficiently

#### 4) The system of rewards and incentives

Supermarkets have most of the sweets at the end of the sales area and at the checkout. The reason: when going to the store, the buyer, after going around all the departments, gets tired and subconsciously wants to reward himself when he leaves, when the shopping is over.

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The fact that these goods are cheap, very tasty, usually in bright packaging and stimulate the release of dopamine pushes visitors to spontaneous purchase as a sign of encouragement for a perfect purchase.

### 5) Updating and changing the interior of supermarkets

Every few years, supermarkets carry out renovation work, updating the interior design of the location of the departments of the store. The reason is to push customers to the realization that a particular supermarket is a new, fresh store that they want to go shopping more often. Moreover, often people are curious and therefore they go to the updated store to look at the arrangement and find out what has changed. Considering that in a familiar setting, shoppers often go straight for the product they came for and are oblivious to other products and the mental tricks the store plays on us as visitors, this move is likely to drive up sales.

### 6) Product layout level

Supermarkets position products in such a way as to most effectively influence various members of the target audience, thereby increasing the likelihood of an emotional purchase. Products to be sold are often placed at eye level. Basic goods and essential products are placed on the upper or lower shelves, so that the buyer, in search of the desired item, pays attention to neighboring goods.

### 7) Influence through colors and numbers

Supermarkets influence the visual organs of customers through the psychology of color perception (in the interior, on the logo) and numbers. Different colors and their combinations in a certain way affect the emotions, mood and consciousness of a person. In turn, setting a price ending in 9 is an effective method, as this creates a sense of urgency to buy, and also encourages the buyer to unconsciously underestimate the price, thinking about the benefit.

### 8) Free antiseptics and magazines at the entrance

At the entrance to supermarkets, visitors are offered to disinfect their hands for free and use disposable gloves. It is also possible to borrow magazines informing about the latest news and great offers from the supermarket with recipes. This approach allows the buyer to feel surrounded by care and attention, which enhances the sense of obligation to pay for a free service.

### 9) Location of cheap products in line with expensive ones

In both retail chains, high-end items are lined up with low-price or discounted items. Reason: a person will unconsciously pay attention not only to products marked with catchy red or yellow price tags but also too expensive and exclusive products nearby. As a rule, people

are suspicious of expensive products in supermarkets and tend to ignore them. As a result, such a tool will lead to an increase in the share of the sale of expensive goods.

However, there are a number of fundamental differences in approaches to the use of neuromarketing tools in the presented retail chains:

### 1) Parking

Providing the opportunity to park a car is not only a manifestation of signs of courtesy and courtesy towards customers but also the purpose of influencing the psychology and visual organs of a person.

### 2) Carts

Supermarkets offer customers to use capacious carts at no additional cost, thereby affecting the human visual organs and psychology: when a customer uses a cart for free, he has a subconscious sense of duty to pay for the free service, as well as a feeling of the need to fill the cart in order to obtain satisfaction from the purchase and saving time. This tool is effectively used together with the provision of free parking spaces.

### 3) Photos at the entrance

When entering supermarkets, visitors are greeted with photos of happy and joyful workers. Such a tool pushes the buyer to the realization that he is welcome in this supermarket. What's more, the employees' uniforms, which contain the same colors as the retail chain's logo, give people the idea that they are in the caring and reliable hands of a team of professionals.

### 4) Cooking and food court

Having a moderately priced in-house kitchen not only gives supermarkets an advantage in terms of product line diversity but also encourages shoppers to buy by creating an environment that is both socializing and relaxing after shopping. Moreover, with the help of this tool, supermarkets act on the visual and olfactory receptors of customers, strengthening the positive image of the supermarket.

In summary, analyzing consumer behavior in stores through neuromarketing methods can provide valuable insights to optimize in-store experiences, improve product visibility, and create more effective advertising and promotional materials. Ultimately, these efforts can lead to increased sales and customer satisfaction.

## *Light*

Light is a powerful trigger for attracting the attention of buyers, and the main object is the psycho-emotional state of the buyer. The human nervous system perceives 80% of light, while vision is only 20%. From this, we can conclude that by creating the right light accents,



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both static and dynamic, it is possible to increase the conversion of the trading floor from 20 to 60%. It should be remembered that light causes quite strong emotions among consumers, affects feelings and mistakes in organizing Trade lighting can linger in the mind of the buyer indefinitely and have a lasting effect.

The most common types of mistakes in the organization of lighting and placement of accents:

- Insufficiently thought-out lighting. In many retail outlets, accents or the direction of light are incorrectly placed, for example, many pay great attention to the lighting of the aisles (the path along which the buyer moves on the trading floor) but forget about the directional light on racks, shelves or showcases. Particular attention should be paid to this issue when selling exclusive, niche products sold at the highest echelons of the market.

- Incorrect color temperature. Everyone knows that there are "Warm" and "cold" products, goods, colors and they need to be highlighted with the appropriate colour of the spectrum. Back to associations, most consumers associate cool white with hospitals and operating rooms, but sometimes they help create a feeling of freshness and luxury, while warm colors are associated with home, and cozy family holidays, but sometimes they give a feeling of wear and dilapidation.

- Use of obsolete fixtures. In the age of innovative and breakthrough technologies, everything is changing very quickly, and using the old uneconomical ones that give dim light and do not allow you to adjust the intensity, temperature and direction of lighting is not just a mistake, but an irresponsible part of retailers.

There are some documents that regulate the lighting standards for office premises, which provide and create favourable conditions for employees. Artificial lighting in trading floors should be organized in several zones. Each of them has its own standard of illumination, measured in lux (lux):

- Checkout area - 300-500 lux.
- Showcases – 300 lx.
- Trade stalls and counters with goods in shops without self-service – 300 lx.
- Trading floors of supermarkets – 500 lx.
- Food shops with self-service – 400 lux.
- Novelty zone (mannequins or racks) – from 500 to 1500 lux.

— Fitting rooms – from 300 lux.

With the help of 4 types of main lighting, all tasks for customer service and staff work are solved. In addition, retail premises must be equipped with emergency and optional auxiliary (duty) lighting systems. Ambient lighting is intended for the comfort of both the staff of the trading enterprise and the customers themselves, therefore, it fulfils the tasks of increasing the efficiency of the employees of the trading floors and creating a positive, pleasant atmosphere for visitors (customers). This lighting is not related to zoning, or the placement of accents, it should be as diffuse, anti-glare and uniform as possible. The walls of the premises should also be illuminated, this lighting allows you to zone the space, highlighting the trade sections and the passages between them. Shop windows, both on the street and in shopping centres, should also be highlighted with light, their main purpose is to attract and hold the attention of passing customers, the level of illumination of some areas of shop windows in shopping centres can be 2-3 times higher than the general or working lighting of the store, however, when designing street windows, one should adhere to the approved standards so as not to create interference and discomfort for city transport drivers. Here the principle of light contrast is applied when the accent is achieved not by increasing the level of illumination, but by shading the background.

### *Music*

Marketing specialists have identified the following basic principles for working with sound on the trading floor:

- Music is selected depending on the concept of the store and the assortment presented in it.

In supermarkets, customers are best influenced by classics and retro hits. Research agency Magram Market Research claims that a measured composition with a rhythm of about 60 beats per minute provokes people to spend 36-40% more on purchases than planned. This kind of music is recommended for medium and high-price shops. Their clients can afford unplanned expenses. In inexpensive stores, it is better to use energetic music (90-110 beats per minute), under which people decide to make a purchase faster, and during peak hours, dynamic music forms the pace and provokes a purchase.

- Slow compositions should be alternated with fast ones so as not to lull the attendants to sleep. Modern technologies allow creating your own musical accompaniment in each

department, to lead the buyer from one shopping area to another. Under the influence of sound, sales can not only grow but also decline. Most consumers note that music in stores interferes and distracts them from shopping.

- When choosing melodies, it is necessary to avoid unnecessary associations among buyers. They should not capture the explicit meaning of the song, otherwise, they will delve into the meaning of the words, distracting from shopping.

- When compiling a music program, it is necessary to take into account the preferences and age categories of buyers. If it matches, people spend approximately 20% more time in the store.

- It is better to refuse to use the radio station. A sharp change in tone (alternating a song, the voice of a radio host, advertising) can cause a negative reaction.

- It is productive to use sound effects that contribute to the appropriate mood of customers (the sound of the surf in the fish department, the clink of crystal glasses in the alcohol department, etc.).

### *2.2.2 Examples of successful neuromarketing campaigns in the FMCG sector*

Walmart, a leading retail giant, has been embracing neuromarketing techniques to gain a better understanding of customer behavior and improve the shopping experience. One way they might apply neuromarketing research is by optimizing product placement on shelves to increase the visibility of high-margin items or promote new products. Analyzing customer eye movements and brain activity helps Walmart create a more efficient and visually appealing shelf layout (Espinoza and Gallegos, 2018).

In addition to optimizing shelf placement, Walmart may use neuromarketing insights to improve the overall store layout, creating an environment that encourages exploration and efficient navigation. By understanding how customers move through the store and which areas receive the most attention, Walmart can strategically place high-demand or promotional items for maximum exposure (Bonanno & Goetz, 2012). Neuromarketing can also play a role in enhancing Walmart's private-label brands, such as Great Value and Equate. By testing different packaging designs and analyzing customer reactions, Walmart can develop packaging that stands out on the shelves and appeals to their target audience.

Another area where neuromarketing research could prove valuable is in evaluating the effectiveness of in-store advertising materials like posters, digital displays, and end-of-aisle

promotions. This data helps Walmart design more engaging and persuasive marketing materials that capture customer attention and influence purchasing decisions.

Walmart may also explore the impact of sensory marketing techniques on customer behavior. Using neuromarketing insights, they could develop strategies that engage customers through visual, auditory, olfactory, and tactile stimuli. This creates a more immersive and enjoyable shopping experience, which ultimately benefits both Walmart and its customers.

### *2.2.3 The current state of neuromarketing adoption in Kazakhstan's FMCG sector*

Research for neuromarketing, as far as we know, has not yet received much distribution either. Although we know that a number of companies have declared and conducted test studies with EyeTrackers in practice.

Two main reasons for this:

- 1) the method is quite expensive
- 2) the tasks for which the eye tracker is used rarely arise in Kazakhstani companies.

There are cases when local teams involve specialists, experts from other countries in projects, where these tasks are solved on a regular basis. According to our estimates, there are approximately 8-10 such research teams in Kazakhstan, which can be innovative and flexible in solving client problems.

In 2017, at Almaty Management University, the neuromarketing laboratory project was successfully defended in front of the president of the university. As part of this project, an eye tracker was purchased in Copenhagen, a device that determines the orientation of the optical axis of the eyeball in space. The eye tracker is used to track elements of interest to consumers when choosing products, evaluating the design of the site, account and commercials. The creation of a neuromarketing laboratory became possible thanks to the sponsorship of Magnum Cash&Carry LLP. With their support, the atmosphere of the store inside the laboratory was recreated. Visitors to the lab can experience similar experiences to visiting Magnum, with shelves, merchandise, and products that can be replaced or supplemented with test items.

In addition, the laboratory allows you to conduct applied research for business. The university has established active ties with leading scientific centers in Russia and Europe. Sandwich programs were launched jointly with KazNMU named after S.D. Asfendiyarov and media agency Qamalladin Media. Despite many benefits of using neuromarketing in sales, there are some contradictions in researcher's opinions. According to Addie (2011), as a result

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of electrodes being positioned on the scalp, EEG can only effectively measure brain activity on the surface, while numerous mental processes, such as those managing emotions and forming memories, take place deep within the brain, beyond the scope of EEG. Consequently, the current methods employed in neuromarketing are not ideal for their intended objective. Nevertheless, even without these limitations, an accurate and holistic understanding of brain function is required for proper interpretation and comprehension of the results, which is also an aspect where we presently lack sufficient knowledge.

### 3 METHODOLOGY

The aim of the study is to investigate the impact of neuromarketing on consumer behavior and sales in the FMCG sector in Kazakhstan in the example of Magnum, Small supermarkets. To accomplish this goal, the authors used a mixed-approaches strategy that included quantitative and qualitative research methods.

The quantitative research component will involve conducting a customer survey, which will be designed to gather data on consumer demographics, purchasing habits, product preferences, and the influence of neuromarketing techniques on their decision-making process. Participants will be recruited through a combination of convenience and snowball sampling methods to ensure a diverse representation of consumers in Kazakhstan (citizens of Almaty, Astana and Shymkent). As for **sample size**, due to the formula the population of three cities (Astana, Almaty and Shymkent) was taken as the basis, it is 3710035. Because margin of error 9.6 , sample size is equal to 105. This approach allowed to achieve diversity in the audience and take into account multiple groups and preferences, making our study more representative and informative.

For qualitative research, the authors conducted **in-depth interviews** with experts in the fields of marketing, consumer psychology, and neuroscience to gain insights into the application of neuromarketing techniques in the FMCG sector in Kazakhstan. These experts were selected for the interview based on their experience in FMCG and retail:

*Expert Mariya Moon, founder and CEO of @noto\_agency marketing agency,*

*Expert Artur Elscheidt, Dostyk Plaza Marketing Manager,*

*Expert Yelena Naumchik, Marketing Head Magnum,*

*Expert Natalya Tregubova, Marketing Head at Mega Alma-Ata,*

*Expert Andrey Lebedev, from Magnum project team.*

*The exploratory method of visual analysis* is an approach to the study of various aspects of society, culture or economy through the observation, evaluation and interpretation of visual elements such as images, media, design or visual space. In the context of supermarket marketing, visual analysis can be used to study how store design, product placement, colors, banner ads, and other visual elements affect shopper behavior and increase sales.

As for visual analysis, the supermarket “Small”, located at the address: 44 Chingiz Aitmatov Street, Astana, will be considered. All neuromarketing methods will be analyzed and reviewed.

## 4 RESEARCH FINDINGS AND ANALYSIS

### 4.1 Findings on the impact of neuromarketing on FMCG sector

#### 4.1.1 Findings of survey analysis

A total of 103 people participated in the study. Table 1 and Figure 1 show the gender and age distributions. There were 18 closed questions with answer options in this question. Respondents from different cities and different ages for an objective conclusion. Therefore, 47 women and 56 men participated in the survey. This approach allowed to achieve diversity in the audience and take into account multiple groups and preferences, making our study more representative and informative.

Table 1. Distribution of respondents by sex and age.

Category	Frequency	Share, %
<b>Gender</b>		
Female	47	45,6%
Male	56	54,4%
<b>Age</b>		
18 - 24 years old	24	23,3%
25 - 34 years old	26	25,2%
35 - 44 years old	23	22,3%
45 - 54 years old	17	16,5%
55 - 62 years old	10	9,7%
63 years and over	3	2,9%

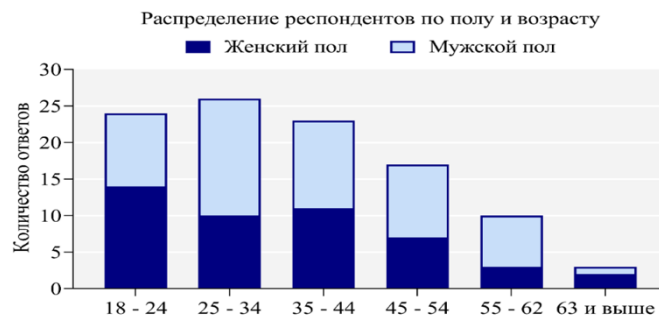


Figure 1. Distribution of respondents by sex and age

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A hypothesis was advanced on the potential existence of a link between consumer preferences for the sort of business they visit, the environment in which they shop, and the ability to make purchasing decisions based just on smell. The most frequently chosen type of store was supermarkets and hypermarkets (52.9%), as well as convenience stores or neighborhood stores (32.4%).

The respondents were quizzed on their awareness of store background music, the value of atmosphere when selecting a business, and the degree to which scents influence their inclination to purchase specific items. 51% of respondents indicated that scents play a large part, 24.5 % indicated that odors don't matter, and the rest respondents indicated that they either don't detect odors (12.7%) or don't like strong smells (11.8%). A hypothesis was advanced on the potential existence of a link between consumer preferences for the sort of business they visit, the environment in which they shop, and the ability to make purchasing decisions based just on smell. The most frequently chosen type of story was supermarkets and hypermarkets (52.9%), as well as convenience stores or neighborhood stores (32.4%).

The respondents were quizzed on their awareness of store background music, the value of atmosphere when selecting a business, and the degree to which scents influence their inclination to purchase specific items. 51% of respondents indicated that scents play a large part, 24.5 % indicated that odors don't matter, and the rest respondents indicated that they either don't detect odors (12.7%) or don't like strong smells (11.8%).

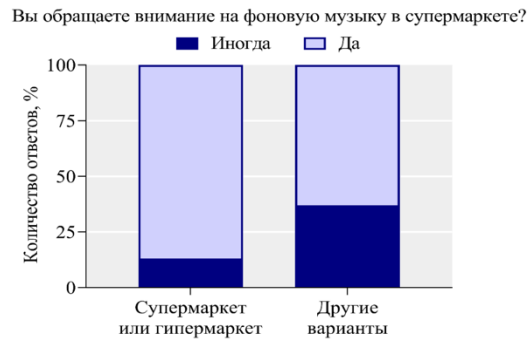
A supermarket's or hypermarket's choice and the effect of smells on customers' willingness to purchase particular goods are frequently positively connected. Customers are therefore more inclined to rely their purchasing decisions in supermarkets and hypermarkets on fragrance. It also follows from these results that respondents, for whom the smell of goods plays a certain significant role in the choice, more often prefer to visit supermarkets and hypermarkets than other trading platforms.

Table 3. Attitude of respondents to smells

The influence of smells on the desire to purchase a product	Frequency	Share, %
Yes, smells make a big difference.	52	51%
No, smells don't matter	25	24,5%
I don't notice smells	13	12,7%
I don't like strong smells	12	11,8%



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Data from the survey suggests that the propensity to impulsive purchases does not affect the choice of store, and visitors to all trading platforms can make impulsive purchases equally. Consequently, customers with impulsive behavior are more likely to pay attention to the atmosphere in the store. It also suggests that a favorable store environment can encourage shoppers' impulsive shopping behavior.

In addition, young people often shop under the influence of their friends, celebrities or bloggers. Therefore, it is important to use promotional formats such as recommendations, reviews, influencer marketing and co-branding. Recommendations and reviews help build trust in a product and make sure it's quality. Influencer marketing allows you to communicate the brand's unique offering to your target audience with the help of influencers and popular personalities. Co Branding is collaborating with other brands that have similar or complementary target groups and values. Respondents between the ages of 18 and 24 do not plan a shopping list, so they tend to make more impulsive and spontaneous purchases. The survey revealed that people of this generation prioritize brand quality, product packaging, the way the product is presented, and location.

This indicates that various marketing tools such as advertising, design, loyalty and social media should be used to attract the attention of young consumers. Packaging design should be attractive, user-friendly, and reflect the brand values. Loyalty can be increased through bonus programs, discounts, gifts and personalized offers. Social media plays a key role as a communication channel with the youth audience. In addition, it's vital to create active and ongoing communication around the brand, publishing useful and entertaining content, running contests and promotions to keep consumers engaged.

One interesting group of consumers is the 25–34-year-old. This is the average person that most advertising campaigns are aimed at. Of course, in the future they will be replaced by Generation Z. But at the moment they are the core of the entire audience in Kazakhstan. The survey shows that they visit supermarkets. Compared to a younger audience, they try to stick to their budget and buy what they need. They behave more rationally and are not prone to

spontaneous purchases. Sometimes they can afford to buy something. Their parents are 45-50 years old, and it is worth emphasizing the similarity in their outlook on life and the fact that their upbringing influenced this category. People born between 1979 and 1988 and belonging to the so-called Generation X. It is important for companies to know the consumer behavior of different age groups and adapt their marketing strategy to them. The 35-44 generation has its own characteristics of consumer behavior in supermarkets, which can be distinguished by the following aspects: Frequency of visits. The 35-44 generation visits supermarkets once a week (41%) or several times a week (36%). This is because these people are busy. People between the ages of 45 and 54 also compare prices in different stores and choose those that offer the best deals. They don't tend to experiment with new products or brands, but prefer those they trust and have tested on themselves.

#### *4.1.2 Findings of Interview with Experts*

When organizing interviews with experts there were highlighted three questions to work with:

- 1) *What neuromarketing methods or tools (for example, eye-tracking, face recognition, etc.) does your company use?*
- 2) *How do you choose the right methods or tools for different goals or campaigns?*
- 3) *How do you measure the effectiveness of neuromarketing campaigns and what indicators do you take into account?*

There was a qualitative analysis in the form of an in-depth interview, where experts explained the specifics of neuromarketing, showed specific examples, and also explained the tools that are involved in their work. The experts were experts in the field of neuromarketing.

Answers of **Mariya Moon**, founder and CEO of @noto\_agency marketing agency

***What neuromarketing methods or tools (for example, eye-tracking, face recognition, etc.) does your company use?***

Generally, the interview with expert #1 refutes the hypothesis that all large companies use neuromarketing. There are a number of reasons for this, such as the high cost of testing the effectiveness of these interventions, the complexity of implementation, and the lack of an evidence base.

An expert can attribute music as neuromarketing tool:

*"We used various music and recorded special tracks to create a certain atmosphere in stores. Our goal is not to extract more money from the customer but to increase his loyalty to*

*our store and create a pleasant customer experience that will encourage them to buy from us not only now but also in the future. To do this, we try to offer quality service, attractive prices and a comprehensive product offer so that customers buy everything they need from us."*

Otherwise, the supermarket's marketing department resorts to traditional tools to increase sales, such as televisions at the checkouts.

*"We use the TVs that we have now hung up, and they show ads at our checkouts. We are just looking at one supermarket to see how these TVs affect the turnover. We also look at the demand from partners. For example, is it interesting to buy programs on these TVs? If this is a story, then we give time to live. If it shows the effect that we expected, then we roll it out on others. We take into account not only these indicators but also others that are also important for evaluating the effectiveness "We don't have a focus group as such. You can't experiment on one at all."*

***How do you choose the right methods or tools for different goals or campaigns?***

***How do you measure the effectiveness of neuromarketing campaigns and what indicators do you take into account?***

In order to select the appropriate methods or tools for different goals or campaigns, the marketing team analyzes the situation, defines goals and puts forward hypotheses. They then use various techniques such as focus groups, control group testing, and data analysis, and look at examples of best practices and industry trends to determine the best approach to solve the problem.

Answers of ***Artur Elsheidt, Dostyk Plaza Marketing Manager***

***What neuromarketing methods or tools (for example, eye-tracking, face recognition, etc.) does your company use?***

To evaluate the effectiveness of neuromarketing campaigns, the team uses various indicators such as sales growth, increased customer loyalty, increased brand awareness, increased conversions, etc. They also use data analysis techniques such as A/B testing to compare the results of experimental and control groups. All tests are audited by financiers, who must confirm the effectiveness of marketing campaigns. Glasses technology is used to track their gaze at the screen, as well as track the movement of people in stores through cameras. These tools allow you to analyze consumer behavior both in the online environment and in offline stores.

***How do you choose the right methods or tools for different goals or campaigns?***

When choosing methods and tools for different goals and campaigns, the marketing team must consider many factors, including product type, target audience, campaign goals, and budget. Neuromarketing technologies can be useful in testing the design of packaging and retail shelves, as well as in analyzing consumer behavior when viewing online content.

***How do you measure the effectiveness of neuromarketing campaigns and what indicators do you take into account?***

Various metrics can be used to measure the effectiveness of neuromarketing campaigns, including conversion, brand awareness, engagement metrics, and sales. You can also use eye-tracking technologies to understand which content items users are looking at the most. In the case of analyzing consumer behavior in stores, indicators such as the time spent in the store, the number of visits to certain areas and the number of sales of certain products can be used.

Answers of *Yelena Naumchik, Marketing Head Magnum*

***What neuromarketing methods or tools (for example, eye-tracking, face recognition, etc.) does your company use?***

Different neuromarketing tools were used: "When a person enters a store, usually in well-organized stores they are greeted by a scent. It's the smell of coffee, it's the smell of baked goods in most of them it's aroma marketing. Secondly, we are immediately greeted by light colors and fresh layouts, fruits and vegetables. And definitely a sense of light in the space. That's what gives us the impression. And it comes right away, unconsciously. We don't analyze it in any way, but we understand that the food here is fresh, it's delicious."

***How do you choose the right methods or tools for different goals or campaigns?***

The expert noticed the arrangement of the goods on the shelf. Those below eye level are the more budget-friendly products, and a little higher are the products of the premium segment: "Customers should be very comfortable and comfortable looking at the premium goods, but a little bit from the bottom upwards. So if we want to increase, say, the saleability of an expensive product, we can lower it a little, and then it will be among the budget products. If a private customer does not pay attention to the top shelves, because he thinks we are expensive, then at

the sight of our product lower, in this case, he already noticed it. Conversely, often products that are just entering the market, tend to stand up higher. They pay special money for that.”

***How do you measure the effectiveness of neuromarketing campaigns and what indicators do you take into account?***

Through A/B testing. If we have two stores with similar profits and assortment, in one store we will apply neuromarketing tools to compare the increase in sales compared to the second store.

***4.1.3 Findings of visual analysis***

Figure 2 – the photo was taken at the entrance to the “Small” supermarket. Vegetables, fruits, and greens are laid out on showcases near the entrance.

By laying out vegetables and fruits closer to the entrance to the supermarket, the store management pursues several marketing goals:

- Creating a Positive First Impression: Vegetables and fruits are usually bright, fresh and attractive, so placing them at the entrance helps create a pleasant and fresh impression of the store, which can encourage shoppers to spend more time and money inside.
- Association with freshness and healthy eating: Placing vegetables and fruits in a prominent place can be associated with a healthy lifestyle and emphasize that the store cares about the quality of the products offered to customers.
- Psychological effect: After buying fresh fruits and vegetables, shoppers may feel more conscientious and may be able to afford to buy something less healthy or more expensive further down the route.
- Encourage Impulse Buying: Displaying fruits and vegetables at the entrance can encourage shoppers to make impulse purchases, especially if the products are presented with attractive promotions or discounts.
- Slowing down the pace of buyers: Vegetables and fruits often require careful selection, and buyers usually spend time choosing the best products. This can slow down the pace of shoppers, which in turn can lead to additional purchases.

Thus, placing vegetables and fruits closer to the entrance to the supermarket is a marketing strategy aimed at creating a positive store experience, stimulating impulsive shopping and increasing overall revenue.

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In Figure 3, we can observe a large number of goods sold by a promotion. Yellow price tags and prices ending in 9 and 5 are also common marketing gimmicks used by retailers to grab customer attention and encourage purchases.

**Yellow price tags:** Yellow is generally associated with warning, activity, and attention.

**Prices ending in 9:** The so-called "9 effect" **Prices Ending in 5:** This marketing technique is similar to the 9 effect and is based on the psychology of price perception. Prices ending in 5 (for example, 4.95 or 9.95) can give the impression that the product is being sold at a reduced or attractive price, which can also encourage purchases.

Figure 4 shows that the supermarket uses deep large carts. Deep carts in supermarkets are also part of a marketing strategy to encourage shoppers to buy more. Here are a few aspects related to using deep carts for marketing purposes:

**Visual Perception:** Deep carts can give the impression that shoppers haven't bought enough items yet, even if the cart is already full. This can encourage shoppers to keep adding items to their cart, increasing their total purchases.

**Convenience:** Deep carts provide more space for product placement, making shopping more comfortable for shoppers. If shoppers feel more comfortable, they may be inclined to spend more time in the store and make more purchases.

**Bulk shopping targeting:** Deep carts can also psychologically motivate shoppers to buy more items, especially if the store offers volume discounts or special offers.

**Behaviour Normalization:** The presence of deep carts in a store can create the feeling that large purchases are the norm or expected behaviour of shoppers. This may encourage shoppers to make more purchases to match this expected behaviour.

Different lighting in a supermarket can also be used as a marketing tool to attract the attention of customers, create a certain atmosphere and stimulate sales. As we can see from Figures 2 and 5, there is a presence of accent lighting in an area of vegetables and fruit. Accent lighting can be used to highlight specific products or areas of a supermarket, drawing the attention of shoppers to special offers, new arrivals or seasonal products. This can encourage buyers to pay attention to these products and possibly make a purchase. The main area of the entrance and walking area are also lighted brightly.

**Creating an Atmosphere:** Lighting can also be used to create a specific atmosphere or mood in a supermarket.

**Shelf Lighting:** Illuminating product shelves can make them more attractive and visible to shoppers, making it easier to select products and encourage purchases.

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Decorating a supermarket with a holiday theme, as shown in Figure 6, is another marketing gimmick that is used to capture the attention of shoppers, create a festive atmosphere and increase sales. This can stimulate purchases and increase overall sales.

**Holiday associations:** Holiday decorations can remind shoppers of the upcoming holiday and be associated with gifts, treats, and family traditions. This can encourage shoppers to purchase holiday-related products such as gifts, decorations, holiday food, and other seasonal items.

Having free parking with a map is another marketing tool that supermarkets can use to attract and retain customers (Figure 7). There are several reasons, why Small uses parking:

**Convenience for shoppers:** Free parking simplifies the process of visiting the supermarket, making it more convenient and comfortable for shoppers. This can increase the likelihood that customers will choose this particular store for their purchases, instead of competing stores with no parking or with paid parking.

- **Attract New Customers:** Having free parking with a scheme can attract new customers who are looking for a convenient parking spot during their shopping. The parking map can also help new visitors find a free parking space quickly and save time.
- **Increased time in store:** If shoppers aren't worried about the cost of parking, they'll probably spend more time in the store, which in turn can lead to more purchases and revenue.
- **Increasing customer loyalty:** Free parking can serve as an additional incentive for repeat store visits and build customer loyalty.

## 5 DISCUSSION AND CONCLUSION

### *5.1 Discussion of Results*

The previous chapter has provided an analysis of the data gathered during the survey. Promotions as they pertain to attitudes and purchasing behavior in comparison to each other have been reviewed and from the insight gained, a better understanding of how purchasing behavior is affected by different promotions and how attitudes towards promotions affect the purchasing behavior associated with those promotions has been obtained. This chapter will discuss the findings of the research and offer recommendations on improvements to promotions.

#### *5.1.1 Limitations of the Study*

The FMCG industry is distinguished by its swift pace and substantial scale, where consumer conduct holds a notable influence over its functioning. The limited range of their practicality could present a difficulty, specifically for comparatively minor enterprises functioning in the swiftly evolving consumer goods industry. Furthermore, these methodologies are distinguished by a substantial time commitment, which includes both the data collection process and the ensuing analysis stage. The matter of generalizability poses a challenge in neuromarketing research due to the restricted number of participants typically engaged, which is frequently attributed to the substantial time commitments involved. The limitations of neuromarketing pertain to its capacity to provide valuable insights into immediate, subliminal reactions to marketing cues, while it may not fully encompass more intentional, conscious cognitive processes that significantly impact consumer behavior. The nascent field of neuromarketing is presently encountering the obstacle of non-standardization, which has led to a dearth of consistency in the methodologies employed. The absence of uniformity may present a difficulty with regards to the comparison of results across varied research undertakings.

In conclusion, while neuromarketing exhibits potential for providing valuable insights into consumer behavior, its integration within the fast-moving consumer goods (FMCG) industry poses specific challenges. It is essential to consider these limitations when examining results obtained from neuromarketing investigations and integrating them into marketing strategies.



### *5.1.2 Discussion of the questionnaire results*

The outcomes presented suggest that the sensory environment of a store, such as ambient music and fragrances, exerts a certain degree of influence on a customer's store preference.

The most commonly preferred store types were supermarkets and hypermarkets, followed by convenience or neighborhood stores. The options of online stores, markets, or farmers were the least preferred among the participants. The aforementioned observation implies that consumers exhibit a preference for retail establishments that offer a diverse range of choices and the convenience of obtaining multiple items in a single location, as exemplified by supermarkets and hypermarkets.

A tenuous positive correlation exists between the selection of a supermarket or hypermarket and the level of attentiveness towards background music. The findings indicate that individuals who exhibit a higher level of awareness towards background music are inclined towards selecting supermarkets and hypermarkets as their preferred shopping destinations. Conversely, a feeble adverse correlation exists between the preference for farmers' markets and attention towards background music. The aforementioned observation implies that individuals who exhibit a decreased level of awareness towards ambient music are inclined towards selecting markets and farmers as their preferred shopping destinations.

On average, a positive correlation can be observed between the selection of a supermarket or hypermarket and the impact of olfactory stimuli on the inclination to acquire specific products. This implies that individuals who place greater emphasis on olfactory cues when selecting products are more inclined to opt for supermarkets and hypermarkets. The research revealed that there is no statistically significant association between store type and impulsive purchasing behavior. This implies that the act of making impulsive purchases does not have an impact on the selection of the type of store. Irrespective of the type of store they patronize, customers exhibit a similar propensity for making impulsive purchases.

The significance of the store atmosphere is moderately correlated with impulsive buying behavior. The aforementioned statement implies that individuals who engage in spontaneous buying behavior are inclined to place a higher significance on the ambience of the retail establishment. This implies that the establishment of a positive retail atmosphere through neuromarketing tools could potentially stimulate impulsive purchasing tendencies.

### 5.1.3 Discussion of the Interview

The findings from the interviews with the two experts suggest differing attitudes and approaches towards neuromarketing in their companies.

**Expert Mariya Moon**, founder and CEO of @noto\_agency marketing agency :

This expert's company seems to use more traditional marketing methods, although they do make use of music as a neuromarketing tool. This use of music is intended to create a pleasant atmosphere and increase customer loyalty, rather than explicitly to boost sales. Other traditional tools, such as televisions at the checkouts displaying advertisements, are also utilized. Expert's company is careful with its approach and tests the effectiveness of its strategies before rolling them out across all stores. They seem to focus more on creating a comprehensive shopping experience with quality service, attractive prices, and a wide product range. The expert doesn't mention explicitly using any neuromarketing technologies like eye-tracking or facial recognition. This could be due to the reasons mentioned earlier: the high cost of these technologies, the complexity of their implementation, and the lack of an established evidence base supporting their effectiveness.

**Expert Artur Elscheidt**, Dostyk Plaza Marketing Manager:

Unlike Expert Mariya Moon, Artur Elscheidt's company does make use of more advanced neuromarketing technologies. They track consumer movements in their businesses with eye-tracking eyewear and cameras. This may indicate that they are more eager to comprehend the specifics of customer behavior and how it influences their purchasing decisions. For various campaigns, they take into account variables like the product kind, target market, marketing goals, and budget while deciding on strategies and tools. They assess the success of their neuromarketing initiatives using a range of indicators, including conversion rates, brand recognition, engagement metrics, and sales. In-store behavior analysis is used to evaluate variables like time spent in the shop and visits to certain locations. They also employ eye-tracking data to discover what customers focus on the most. The two specialists' divergent strategies are a reflection of the many viewpoints that exist in the industry about neuromarketing. While some businesses, like the one represented by Expert Mariya Moon, could be more conservative and depend more on conventional techniques, others, like the one represented by Expert Artur Elscheidt, are more receptive to utilizing cutting-edge neuromarketing technology.

This underlines the reality that there is no universally applicable method to marketing and that the most effective tactics rely on a range of variables, including the particular aims of

the business, the type of the goods or services it provides, its target market, and its financial constraints.

**Expert Yelena Naumchik, Marketing Head Magnum :**

The expert has a clear understanding of neuromarketing tools and has already applied them in his experience. One of the companies where our expert worked applied face reading in order to be more client-oriented. She told us that it's important to consider factors that can affect the results, such as lighting, if the lighting is not right it can affect the determination of age and emotion. She also talked about the positive application of aroma marketing and the impact of proper lighting. Like second expert for different purposes, they take into account the type of product, the target market and the budget. They also used data from emotion tracking to understand customer satisfaction. Unlike expert Mariya Moon, the companies where our expert worked are more loyal to new technologies and try to incorporate neuromarketing technologies into their strategy.

**Expert Natalya Tregubova, Marketing Head at Mega Alma-Ata**

This expert doesn't consider neuromarketing as a separate discipline, it's more of a tool that exists, but he shared his opinion and that he has applied methods. For example a light that illuminates the meat with a special halo so that its freshness and color attracts the customer. But he mentioned that in such shops the turnover increases by 10-20%, and it depends on the overall positioning. That is, to raise sales, you need to use comprehensive neuromarketing tools, aroma marketing, light, shelves, etc. You can't make an impact from one method alone, you have to change the concept completely. To test them, like other experts, he believes it is worthwhile to conduct pilot runs, do an AB analysis and carry out research. He is primarily driven by the desire to satisfy the customer, to show something familiar from a new perspective and to attract attention. He stresses that all tools, including neuromarketing tools, must be ethical.

**Expert Andrey Lebedev, from Magnum project team**

As for expert Andrey Lebedev shared opinion and that has methods in use. For example, a lamp that illuminates meat with a special halo, so that its freshness and color attracts the buyer's attention. But he noted that in such stores the turnover increases by 10-20%, and it depends on the overall positioning. That is, to increase sales, you need to use comprehensive neuromarketing tools, aroma marketing, lighting, shelving, etc. You can't make an impact with just one method, you have to completely change the concept. In a context where the main

objectives are to appeal to all the senses in order to make the consumer feel comfortable, this has an impact on key performance indicators such as: traffic, time spent, overall sales turnover, reviews and mentions. The most important catalyst for the goods turnover in neuromarketing is the music according to this expert as a rule at the weekend is more dynamic music, thus it makes it possible to regulate the consumption of customers and sales dynamics

#### *5.1.4 Discussion of the visual analysis*

The examination of the arrangement of fruits and vegetables in the supermarket's layout, particularly their proximity to the entrance, exposes various fundamental tactics employed in retail marketing. The visual appeal of fresh and vibrant fruits and vegetables can significantly influence shoppers' initial perceptions. The aforementioned phenomenon generates a constructive first impression of the retail establishment, potentially influencing customers' psychological inclination towards a satisfactory shopping encounter. The emphasis on fresh produce conveys a prioritization of healthy lifestyle choices and superior product standards. The act of positioning can serve to strengthen the store's dedication to excellence and appeal to individuals who prioritize their health and well-being. The phenomenon of prioritizing the purchase of healthy items leading to the creation of a "health halo" effect has been observed. This effect can result in shoppers experiencing a sense of virtuousness regarding their healthy choices, which may subsequently lead to a perceived justification for indulging in less healthy options later during their shopping excursion. This has the potential to enhance the sales of more luxurious or costly products. The presentation and promotional strategies of fresh produce have the potential to elicit impulsive buying behavior. An aesthetically pleasing arrangement of recently harvested produce has the potential to attract clients and stimulate impulsive buying behavior. The act of choosing fresh produce typically necessitates a considerable amount of time, as consumers tend to scrutinize these commodities for their level of freshness and overall quality. The decelerated tempo of shopping can potentially prolong the duration of customers' stays in the store, thereby augmenting the probability of supplementary purchases.

The practice of pricing products with a final digit of 9 or .99 is commonly employed in retail settings to create a perception of value among customers. This is due to the phenomenon of customers tending to round down and perceive such products as being less expensive than their actual price. Prices that terminate in 5 or .95 can create a comparable impression of value, which is frequently interpreted as a reduction or bargain, thereby stimulating sales. The

utilization of deep carts has the potential to induce a sense of scarcity among customers, thereby engendering a feeling of inadequacy in their purchase even when the cart is fully loaded. This phenomenon has the potential to stimulate increased expenditures. Moreover, the practicality of possessing a spacious cart can facilitate more convenient shopping experiences, which may result in customers prolonging their stay in the store and increasing their buying frequency. The existence of these carts may potentially establish a standard for bulk shopping behavior, prompting patrons to procure additional items in order to comply with this perceived convention.

The supermarket's strategy accomplishes a variety of goals. The implementation of accent lighting within a retail environment serves to highlight particular merchandise or designated areas, such as promotional items or fresh produce, thereby stimulating customer interest and potentially increasing sales through further exploration and subsequent purchases. The general illumination within a retail establishment can potentially establish a distinct ambience or effect, whereby diverse lighting techniques may evoke varying affective reactions and degrees of ease. Illuminated shelving enhances visibility and facilitates product identification and selection, thereby enhancing the overall shopping experience for customers. Moreover, the utilization of lighting can be employed to augment the perceived caliber of commodities, particularly in the case of perishable goods. Enhancing the visual appeal of these products can potentially augment the probability of their purchase by customers.

#### *5.1.5 Conclusion*

In this paper, both qualitative and quantitative research methods were conducted. As a result, it was possible to build an understanding of the market of Kazakhstan, and the use of neuromarketing in the FMCG sector. The best way to do this was through interviews, the selected experts proved that they have an understanding of neuromarketing and know how to implement it.

This study was based on several hypotheses.

*Hypothesis 1: Not all companies have implemented neuromarketing in their business.*

*Hypothesis 2: Only leaders and large companies use neuromarketing.*

*Hypothesis 3: Neuromarketing in the FMCG sector has a positive impact on sales.*

The first hypothesis is confirmed, the difficulty of implementing neuromarketing is its cost of research. More often than not, companies implement some tools that are exceptionally

suitable for them and not very costly. There is a specialist and marketing manager - Elena Naumchik, she said that in her experience was the use of eye tracking and aroma marketing. Also it was confirmed by experts from Magnum, first of all these actions are aimed to improve service. But for example Maria Moon, founder and CEO of a marketing agency said that not all companies use neuromarketing, and other experts have confirmed it. And it is worth noting that some companies use neuromarketing without fully understanding its actions, they know that the smell of baking attracts customers but they are not going to study it deeper. They think that the increase in profits is not so big for such costs.

The second hypothesis is that "only leaders and large companies use neuromarketing. It is also confirmed, and in general it follows from the first hypothesis, because they are interrelated. Leaders have a lot of outlets, they are interested in profits for the future, so such costs are recouped over time. Also, they use the research already done, because, as previously cited, in the first place, their goal is to improve service to customers. Aroma marketing and neuromarketing tools related to light are used most often.

The third hypothesis was also confirmed, all of the experts used A/B tests. Thanks to Split testing we found out which of the tools are the best, and further used on all retail stores. Also, pilot launches are often used in relation to the implementation of neuromarketing. Some neuromarketing techniques have been used for a long time, like yellow price tags and shelf arrangements with aroma marketing. From all the results obtained, it becomes clear that the use of neuromarketing tools creates a pleasant atmosphere in the FMCG sector, which encourages people to make spontaneous purchases and spend a long time. Increased sales are associated with shoppers being more likely to notice products on the shelves or feel in a favorable environment. Also, the correlations in the survey show that people in supermarkets with neuromarketing spend more and make spontaneous purchases, thus increasing the revenue of the place.

This study and the confirmation of the hypotheses shows that the application of neuromarketing is worth paying attention to, the authors used quantitative and qualitative research methods. Drawing from the analyzed information, the following conclusions are derived with respect to the research inquiries: The use of neuromarketing techniques, including eye-tracking and facial recognition, has demonstrated efficacy in comprehending consumer behavior. Consumer behavior research provides valuable insights into the subconscious reactions of consumers, which can serve as a reliable predictor of their purchasing decisions. Notwithstanding, these methodologies are frequently intricate and costly and necessitate a well-defined evidentiary foundation to establish their efficacy.

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A variety of cultural, economic, and social factors have an impact on how consumers react to neuromarketing stimuli. These factors include local traditions and preferences, income levels, price sensitivity, peer influence, and societal norms. The distinctive demographic and socio-economic context of the Kazakhstani market may result in variations in these factors compared to other markets.

The ethical dimensions of neuromarketing encompass the principles of safeguarding consumer privacy, disclosing the application of neuromarketing methods, and preventing the exploitation of susceptible populations. Organizations may encounter obstacles, such as opposition from customers who are uneasy with these methodologies and regulatory impediments, in the absence of well-defined standards pertaining to neuromarketing methodologies.

Neuromarketing research results can assist FMCG companies operating in Kazakhstan in customizing their marketing strategies to better align with consumer behavior, creating products that cater to subconscious preferences, and achieving a competitive advantage by providing a shopping experience that is more attuned to consumers' psychological requirements. The potential effect of neuromarketing tactics on the efficacy of fast-moving consumer goods in the market of Kazakhstan, in contrast to conventional marketing methods, can be significant. Although conventional marketing methods can be successful, neuromarketing tactics possess the capacity to access subconscious consumer behavior, thereby resulting in more efficacious marketing campaigns and increased sales.

To summarize, the field of neuromarketing presents potential opportunities for comprehending consumer actions and enhancing marketing results in the fast-moving consumer goods industry. However, it is crucial for corporations to adopt an ethical and transparent approach towards this practice while considering the distinct cultural, social, and economic circumstances of their intended audience.

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## APPENDICES

### Appendix A

#### Customer Survey on Neuromarketing in the FMCG Sector in Kazakhstan

*Please take a few minutes to complete this survey about your experiences and preferences regarding Fast Moving Consumer Goods (FMCG). Your answers will help us understand the impact of neuromarketing on consumer choices. All responses will be kept confidential.*

#### Section 1: Demographic Information

1. What is your age?
  - 18-24
  - 25-34
  - 35-44
  - 45-54
  - 55-62
  - 63+
2. What is your gender?
  - Male
  - Female
3. What is your employment status?
  - Student
  - Employee
  - Retired
  - Business Owner
  - Self-employed
  - freelancer
  - unemployed
4. What is your approximate monthly income?
  - 150-250K
  - 251-300K
  - 300-350K
  - 350-400K
  - 401-450K
  - 450-550K
  - 550K+
5. What city do you live in?
  - Almaty
  - Shymkent

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- Astana
  - Aktobe
  - Karaganda
  - other
6. What kind of products do you purchase the most?
- Food
  - Beverages
  - Personal care items
7. Where do you most often buy groceries?
- In a supermarket or hypermarket
  - In a convenience store or in the neighborhood
  - In a specialized store (for example, meat, fish, bread, etc.)
  - At the market or at the farmers' place
  - In the online store
8. Which supermarket do you visit?
- Magnum
  - Galmart
  - Small
  - Minimarket
  - other
9. How often do you visit supermarkets?
- Several times a week
  - Once a week
  - Several times a month
  - Once a month
10. What factors influence the choice of a particular store?
- convenient location
  - pricing policy
  - product range
  - interior/exterior
  - shop concept
11. What impressions does the store where you most often shop leave?
- Large assortment
  - Competent division into zones according to the type of product
  - Bright, spacious, clean room
  - Pleasant music
  - The products are neatly laid out
12. How much do marketing campaigns influence your decision to purchase FMCG?
- Great influence
  - Some influence
  - Negligible impact

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- No impact at all
13. On a scale of one to five, where from 1 (negative, it annoys me) to 5 (I like it), rate the marketing activities carried out in the supermarket
14. How often do you buy something you didn't plan to buy when you went out to get groceries?
- Very often
  - Quite often
  - Sometimes
  - Rarely
  - Never
15. Do you pay attention to the background music in the supermarket?
- Yes
  - No
  - Sometimes
  - I find it difficult to answer
16. How important is the atmosphere (lighting, sound, smell, convenience of laying out goods) in the supermarket when choosing a store to buy groceries?
- Very important
  - Important, but not decisive
  - Not very important
  - It doesn't matter at all
17. Do you pay attention to the presence of a discount when choosing a product?
- Yes, the discount is an important factor when buying an item
  - No, the discount does not affect my product selection
  - Depends on the type and quality of the goods
  - Depends on the size and conditions of the discount
  - Depends on my budget and needs
18. Do smells affect your desire to purchase certain products?
- Yes, smells are strongly influenced
  - No, smells don't matter
  - I don't notice the smells.
  - I don't like strong smells.

**Thank you for participating in our survey. Your responses will help us better understand the impact of neuromarketing on consumer behavior in the FMCG sector in Kazakhstan.**

Please provide any additional comments or feedback about your experience with this product or brand: \_\_\_\_\_



## Appendix B

### Script of Interview with Expert #1

1) *What neuromarketing methods or tools (for example, eye-tracking, face recognition, etc.) does your company use?*

2) *How do you choose the right methods or tools for different goals or campaigns?*

3) *How do you measure the effectiveness of neuromarketing campaigns and what indicators do you take into account?*

"Я понимаю тему вашей дипломной работы. Но я думаю, что это больше относится к маркетингу, хотя возможно, операционный департамент, ответственный за торговлю внутри торгового зала, также имеет свое мнение по этому поводу. Я хотел бы спросить, знакомы ли вы с блогером Тихоном Смирновым и его каналом на YouTube, где он делится интересными видео про супермаркеты в России и объясняет тарифы и другие непонятные моменты для клиентов. Например, он говорит о том, почему для отмены покупки на кассе нужно вызывать сотрудника с ключом. Он также объясняет, почему выпечка ставится в конце магазина, а не у входа, где запах может привлечь покупателей. Но это не значит, что торговый зал проектируется для того, чтобы максимизировать прибыль. Это просто миф. Клиентам удобнее покупать товары, если они расположены на оптимальном пути. Никакого заговора нет.

Я работаю в маркетинге крупнейшего ритейлера в стране и уверен, что мифы о том, что бизнес-злодеи пытаются обмануть покупателей, не имеют никаких оснований. Некоторые клиенты не доверяют розничным магазинам из-за небольших ошибок в ценообразовании, акциях или начислении бонусов. Но это обычные технические проблемы, которые могут возникнуть в любой компании."

Потому что в конце концов любой человек со зрелыми взглядами на бизнес понимает, что нужно сделать самый удобный сервис для клиента, и тогда он к тебе придёт. Мы не на рынке один день, чтобы сегодня ободрать клиента такими нейромаркетинговыми инструментами, чтобы увеличить прибыль и маржу, а завтра потерять этого клиента, когда он раскусил все наши хитрости. Конечно нет. Это вот те мифы, в которые хочется верить народу. На самом деле мы стараемся угодить клиенту, дать ему самую низкую цену, самую понятную навигацию, самый лучший сервис, самые чистые залы, самые удобные полки, самые хорошие акции, которые мы сотрудничаем с партнерами, специально для клиентов, и так далее.

В общем, только предпочтения для клиентов, потому что мы понимаем, что только так можно обеспечить долгосрочную вход для лидерства, которое мы имеем на текущий момент. Мы всегда очень аккуратно подходим к каким-то новым экспериментам. Всегда их тестируем очень аккуратно, потому что клиент тоже это всё чувствует. Потом начинаются разговоры о том, что мы специально сделали этот запах, чтобы из меня больше денег выйти. На самом деле нам это не надо. Если вы посмотрите на нашу миссию, мы наполняем жизнь, и мы хотим дать полезный сервис людям, чтобы они могли тратить свободное время на семью, карьеру и действительно важные вещи. Мы хотим быть неотъемлемой частью их жизни и хотим быть любимыми, а не так, чтобы мы применяли какие-то штучки, чтобы увеличить продажи. Интересно на уровне теории, но когда вы пойдёте в практику и будете каждый день идти бок о бок с

конкурентом, вы поймёте, что нужны более понятные и простые вещи. И даже их реализовать качественно в масштабах – это не простая задача.

Интересно на уровне теории, но когда вы пойдёте в практику и будете каждый день бок обок идти с конкурентом, вы поймёте, что на самом деле нужны более понятные и более простые вещи. И даже их реализовать качественно в масштабах - это не простая задача. Поэтому говорю "тестировать", то очень часто применяется это слово. Мы допустим за прошлый год выросли два раза - 250 супермаркетов. Мы не можем просто потому, что кто-то верит и считает, что это хорошая идея, пойти и раскатать ее на 250 филиалов масштабов. Например, аромамаркетинг. А если он не сработает, мы столько денег вложили. Мы будем тестировать его на ком-то филиале, касательно таких вещей. *Мы используем телевизоры, которые мы сейчас повесили, и они у нас на кассах показывают рекламу. Мы всего лишь в одном супермаркете смотрим, как именно влияет на товарооборот эти телевизоры. Так же смотрим, какой спрос со стороны партнёров. Например, интересно ли выкупать программу в этих телевизорах? Если это история, то мы даём время пожить. Если она показывает тот эффект, на который мы рассчитывали, тогда мы раскатываем ее на других. Мы учитываем не только эти показатели, но и другие, которые также важны для оценки эффективности. Как таковой фокус-группы у нас нет. На одном вы не можете экспериментировать на всех. Вы используете контрольную группу вот от сегмента. Для чего нужна? Вы берёте сегмент, например, мужчины от 30 до 40 лет, которые пьют алкоголь, и у нас есть закрытый клуб "Party Club" для алкоголиков-табачников. Там мы, например, на них отправляем какую-то коммуникацию, чтобы купить "Nemiroff" и получить бонусы. Мы отправили push-уведомления и смотрим, что именно происходит среди этих людей. В этом сегменте было 5000 человек*

Для тестирования мы используем контрольную группу, например, в одном сегменте. Например, мы можем взять сегмент мужчин от 30 до 40 лет, которые пьют алкоголь, и отправить им коммуникацию о том, что если они купят Nemiroff, то получат бонусы. Мы отправляем push-уведомления и смотрим, как это влияет на покупку. Если мы также берем контрольную группу из этого сегмента и не даем им коммуникацию, то мы можем сравнить результаты и понять, как эффективно была проведена акция.

Аналогично мы можем проводить тесты на филиалах, беря аналогичный филиал с такой же торговой площадью, количеством посетителей и средним чеком. Мы смотрим, насколько растет товарооборот при рекламе определенного продукта.

*Все тесты проходят аудит через финансистов, которые должны подтвердить эффективность маркетинговых акций. До момента финансирования мы предполагаем гипотезы и используем фокус-группы.*

Как здесь в отделе маркетинга получается, они выдвигают какие-то гипотезы или постфактум ставят ещё?

Ну, очень по-разному. У нас очень динамичный бизнес, очень операционный маркетинг в ритейле. Вот каждый день на другой не похож. В один день мы решаем увольнение и меньшую проблему PR, там кто-то нашёл какую-то дохлую мышь в носке, а иногда пилят там какую-то мошенническую схему, там кто-то делает, и она у нас занимает весь день. Иногда больше времени уходит на запуск кризисных коммуникаций и т.д. Так как я занимаюсь продуктом, у меня больше разработки. Но я это к чему говорю, что цели у бизнеса всегда ситуативные и всегда разные. Конечно, есть стратегическое представление и выведение, но могут быть разные цели, например, мы видим, почему-то у нас начинает падать товарооборот в Шымкенте. Мы там начинаем

думать над конкретной задачей: как повысить трафик в Шымкенте? И мы там со всех инструментов анализируем, что мы можем комплексно сделать и как мы об этом будем коммуницировать. Какой должен быть конечный эффект. Делаем пионер-финмодель. Только мы потратили на это денег. Сколько мы должны на этом заработать, если должны? Не только после. Вот таких вот просчетов, естественно, мы идём делать проекты.

Ну, то есть, я не могу Вам сказать конкретно. Вот вот так вот так пошли. Это абсолютно разные могут быть цели, конечно. В основном. Это нужно понимать, что всегда мы стремимся увеличить товарооборот, принести больше трафика в магазин, увеличивать средний чек, увеличивать долю лояльных клиентов, потому что нам нужно, чтобы люди пользовались картами лояльности. Может, для нас это оцифровано и чеки уже. То есть вы тогда видим, кто что покупает. Но что, пока он не в лояльности, мы этого не видим.

Какие конкретные методы нейромаркетинга, влияющие на зрение, слух, вкус, обоняние и осязание, вы использовали в своей практике?

На моей памяти мы не обсуждали методы, влияющие на вкус, обоняние и осязание. Потенциальные партнеры предлагали такие инструменты, но мы не придавали этому большого значения, так как не всегда есть острая потребность в таких методах. Я уверен, что в мире есть крутые кейсы использования нейромаркетинга, но это всегда нужно понимать четко и использовать их только тогда, когда есть конкретный эффект, который необходимо достичь.

*Мы использовали различную музыку и записывали специальные треки, чтобы создать определенную атмосферу в магазинах. Наша задача не заключается в том, чтобы вытянуть больше денег из клиента, а в том, чтобы увеличить его лояльность к нашему магазину и создать приятный клиентский опыт, который будет подталкивать его к тому, чтобы делать у нас покупки не только сейчас, но и в будущем. Для этого мы стараемся предложить качественный сервис, привлекательные цены и комплексное предложение продуктов, чтобы клиенты покупали у нас все, что им необходимо.*

Мы прочитали много бизнес-литературы, где говорится о том, как музыка может влиять на поведение клиентов в магазине. Прерывистая музыка заставляет людей быстрее уходить, а спокойная музыка может увеличить время, проведенное покупателями в магазине.

Однако мы не всегда осознаем, как музыка влияет на нас. Например, если мы слушаем приятную музыку, мы можем оставаться в магазине дольше, даже если не осознаем этого.

Некоторые ритейлеры используют музыку, чтобы ускорить поведение клиентов, но это не всегда лучший подход. Важно создавать приятную атмосферу в магазине, чтобы клиенты чувствовали себя комфортно и проводили больше времени внутри. Это может включать в себя чистоту и порядок в магазине, удобную навигацию, яркое освещение, понятные ценники и подсвеченные акции.

Важно понимать, что каждый магазин уникален, и не существует универсального решения для всех. Однако, понимание того, какие факторы влияют на поведение клиентов, может помочь ритейлерам создавать приятную атмосферу в своих магазинах и привлекать больше покупателей.

Также важно обратить внимание на такие очевидные вещи, как чистота и отсутствие неприятных запахов в торговом зале. При этом нужно также понимать, что кроме музыки, на клиента может влиять интерьер магазина, его дизайн и навигация,



подписанные категории товаров и ценники, а также качество освещения и расположение товаров на полках.

В итоге, чтобы привлечь больше клиентов и увеличить продажи, необходимо уделять внимание всем аспектам создания комфортной и удобной атмосферы в магазине.

Тем более в такое кризисное время. Сейчас в России выходит новый формат магазинов, называемый "чижик-пыжик". Он предлагает базовый ассортимент товаров по низким ценам. Магазины с уникальным ассортиментом и премиальным алкоголем, как, например, "Галамарт", конечно, приятны для покупок, но дороги для большинства людей. Наш магазин позиционируется как "Народный", но мы стараемся иметь лучший интерьер, чем у конкурентов, чтобы покупателям было приятнее находиться в наших торговых залах. Любые желания сделать магазин лучше и красивее надо оценивать по стандартам и деньгам, иначе можно потерять ценовое лидерство и потерять покупателей. Ритейл - это низкомаржинальный бизнес, поэтому мы очень тщательно пропускаем любые идеи через финансовый контроль. Хотя мы хотим угодить клиенту, но иногда происходит наоборот, и мы получаем дефекты. Мы думаем о нашей небольшой марже очень хорошо, прежде чем ее сжигать в каких-то проектах.

Такое тоже бывает. Поэтому, знаете, я бы посмотрел на вашем месте не только на теорию. Что мы прочитали там так классно вообще, что это такое в теории, все потенциальные инструменты, но посмотрел бы на реальные кейсы, которые были на рынках, причем не обязательно в Казахстане. Посмотрите в России, в Европе. Может, там Wildberries, какие-то Волмарты и в Америке какие делали классные кейсы? Вот нейромаркетинг, почему? Обратите внимание, когда будете смотреть такие кейсы, почему они чаще всего заканчиваются какими-то тестами? Почему, например, мы не знаем ни одной сети, в которой во всех филиалах пахнет свежо, когда Хлоя или фруктами, я не знаю, кафе, выпечкой. Почему этого нет? Всё-таки, если это все так классно, почему кто-то не сделает это постоянным стандартом своего сервиса? Значит, есть, наверное, какие-то причины, почему это не нужно? Вот, например, те же запахи. Вот, один раз я приду, это как с парфюмом. Вы почувствуете запах приятного парфюма, вам будет приятно. Второй раз почувствуете, скажете: "Вода? Интересно, действительно?" Третий раз попросите, уже четвертый раз. Он вам уже надоест, а в пятый раз он вам будет неприятен и отвратителен, уже в шестой раз. Соответственно, вот такие вещи, они могут быть в рамках каких-то промо-кампаний, таких узконаправленных, типа три дня или неделю классно пахнет, приходите на "нюхать", и через неделю это всё пройдет. Зато останется впечатление, имидж. Но это какие-то проекты, кейсы. Когда мы что-то сделали прикольно, контент сняли, везде под хэштегом их разместили, имидж создали, интересная, посмеялись, забыли.

Если вы хотите узнать, есть ли у магнума красный цвет, то можно попытаться найти скрытый смысл во всем, что делается в маркетинге, и это направлено на стимулирование прибыли и воздействие на психологию клиента. Однако я, как маркетолог со своим опытом, не верю в такие вещи. Я считаю, что рациональный клиент понимает ценности, которые вы предлагаете, за какую цену, и знает свои потребности. Я не считаю, что их подсознание может быть обмануто цветом или логотипом.

Мы всегда стараемся четко и ясно общаться с клиентом, а не пытаться провоцировать его эмоции зеленым цветом или другими подобными приемами. Мы думаем о том, как наиболее четко объяснить механику наших действий клиенту, чтобы он мог легко и просто получить то, что ему нужно.

Недавно мы совместно с крупнейшим в СНГ московским агентством по стратегическому брендингу разработали новую этику для нашей компании. Мы изменили цвет нашего бренда на более трендовый и молодежный gentoo, чтобы

привлечь новое поколение клиентов. Все наши решения принимаются на основе рациональных соображений и проработки стратегии, а не на основе эмоций и подсознания клиентов.

Правительство совместно с нашими коллегами-бренд-менеджерами, вот это всё проработали. Конечно, они старались отразить наше позиционирование и корпоративные ценности в айдентике, быстром, честном и надёжном, но я не верю во всякие псевдонаучные исследования, в которых говорится о том, что 40% людей кликают на оранжевую кнопку. Я считаю, что это полная чушь. Если у вашего бренда оранжевый цвет, то, может быть, сделать кнопку оранжевой цветом лучше, чем фиолетовой, но если вы, например, используете цвет маджента, то сделаем кнопку маджентового цвета. Если кнопка не активна, сделаем её серым цветом. Есть общие вещи, которые у людей ассоциируются с чем-то, например, жёлтый цвет у людей ассоциируется со скидками. Это уже такой негласный стандарт на рынке. Если вы хотите подсветить скидку, сделайте ценник жёлтого цвета. Это не нейромаркетинг, а просто выработанная привычка взаимодействия с цветом и культурой. Так мы всем рынком дружно начнём продвигать скидки на зеленом цвете или через 5 лет люди будут искать скидки на всём зеленом. Сами же чаще всего за этим стоит первый бренд. Например, копировальная машина называется ксероксом потому, что первая компания, которая выпустила ксерокс, была так названа. Точно так же какой-то большой бренд когда-то давно начал использовать жёлтые ценники и вызвал привычку у потребителя. Дальше его конкуренты, чтобы не использовать этот эффект, начинают использовать жёлтый цвет, чтобы не тратить свои ресурсы на то, чтобы переобучить клиента. Таким образом, в один день это становится стандартом. Если бы изначально эта компания пошла с другим цветом, цвет был бы другим.

Сказать, что ваш профессионализм недостаточен, но, например, в Америке школьные автобусы жёлтого цвета, потому что именно жёлтый привлекает внимание, а не красный. Это связано с темой внимания. Например, жёлтый баннер лучше заметить, чем какой-либо другой цвет. На пляже жёлтый и голубой баннеры считаются самыми заметными. Важно учитывать цвета и их ассоциации у людей. В то же время не стоит принимать за знания псевдоисследования и статьи, написанные блогерами, а не профессиональными маркетологами. Необходимо обращаться к экспертам и реальным данным, а не кликбейту и псевдонаучным статьям.

Маркетолог, например, там, который работает над конкретными бизнес-задачами он не ведёт параллельный блок, где он рассказывает всё, что там реально действий, которыми он в компании делится делают то, что это конфиденциальная информация.

### **Script of Interview with Expert #2**

“Мы используем специальные технологии для тестирования всего, что связано с онлайн контентом, включая UX/UI сайтов, приложений и онлайн рекламы. Мы используем очки, которые надеваются на глаза респондентов, чтобы определить на какие места на экране больше всего падает взгляд. Так мы можем понять тепловую карту и определить, что именно привлекает внимание больше всего. Эта технология также используется для тестирования товаров на полке, а также для тестирования дизайна упаковок FMCG товаров. Мы можем тестировать все виды контента, включая рекламу, упаковки, креативы, фото, видео и дизайн сайтов и приложений. Эта технология позволяет нам тестировать все, на что смотрит глаз, как виртуально, так и в реальном мире.

Вот теперь речь идет о похожей технологии, которая позволяет отслеживать движение людей онлайн через камеру. Это аналогично технологии, которая используется в магазинах, где устанавливают камеры для отслеживания движения людей на торговой площади. С помощью таких камер можно узнать, в какой части магазина люди проводят больше/меньше времени и т.д. Такая же технология может использоваться для отслеживания движения людей и определения того, как различные факторы, такие как запахи и музыка, влияют на поведение потребителей. Это позволяет точнее тестировать и определять, сколько времени проводят люди в магазине, какие товары покупают и т.д. В итоге, такая технология позволяет более точно анализировать поведение потребителей в офлайн-магазинах.”

### Script of Interview with Expert #3

Когда человек входит в магазин, как правило, в хорошо организованных магазинах их встречает запах кофе, это запах выпечки в большинстве своём это аромамаркетинг. Сложно с помощью кофемашины наполнить это огромное пространство воздуха, поэтому, как правило, это масло, которое используется через пульверизатор. Во вторых нас встречает сразу же светлые тона и нас встречает fresh выкладка, овощи и фрукты. И обязательно ощущение света пространства. Вот это нам даёт впечатление. А оно идет сразу с соответственно, неосознанно. Мы его никак не анализируем, но мы понимаем, что здесь свежая еда, здесь вкусно. Продукты должны выглядеть максимально аппетитно и разнообразно. Теплота света должна быть разной на разных товарах. То есть, если мясные товары, детские, мясные деликатесы, там будет чуть чуть розоватый цвет. Потому, чтобы мясо был такой розовенькая, вот соответственно, там, где зелень должен быть более холодный. Есть еще один интересный кейс несколько лет назад Пятёрочка ввела новую фишку, наложив на пол принт. Вот вся изломанная, и смотреть на это реально больно. В России до сих пор используется это, вот на него смотреть неприятно, но сделано это специально чтобы посетители смотрели на полки, а не вниз. Так что нейромаркетинг, новые исследования, выводы, они очень активно применяются в бизнесе очень и активно берутся на вооружение. Также большое внимание уделяется расположению товаров на полке. Какой должен быть товар? Вот это то, что премиальные товар повыше, но не совсем наверху, потому что будет трудно дотянуться. Вам должно быть очень удобно и комфортно смотреть на премиальный товар, но при этом чуть чуть снизу вверх. А товар соответственно, не премиальный должен быть пониже. Поэтому если мы хотим повесить, допустим, продаваемости дорогого товара, мы можем его чуть-чуть снизить, и он тогда будет среди бюджетных. И это, наверное, золотая жила, и одно из самых важных направлений. Вот поэтому он, конечно же, если входит на рынок какой-то новый товар, такой средний бюджетного класса. Например, вот у меня был был исследование для маленькой розничной сети. У меня много консультировала в России. Вот была такая торговая сеть, которая из фермерских продуктов, точнее хорошего мяса. Клиент открыл в Подмоскowie свою сеть магазинов. И они быстро поняли, что качество ассоциируется с фермерством. Удивились немножко, потому что у них было ощущение, что фермерство это антисанитария и не нестабильный уровень качества и всё это тоже правда. В магазине у дома немало товара, это неплохо, но им интересно всё таки получать, какой то комплекс. Вот и мы проводили исследования, у нашей фокус группы мы спрашивали ваши первые впечатления, детские впечатления с магазином. И мне рассказывали, например что они бы хотели чувствовать что

## Application of neuromarketing techniques in FMCG industry

магазин это маленькая кладовка, где есть все самое необходимое. После этого возникает вопрос, как это проявить. Мы решили сделать из этого магазина более домашнее место, добавить деревянные стеллажи и возможно другие атрибуты которые будут напоминать об уюте. Как измерять эффективность? Как и эффективность любых других. В первую очередь А/Бтесты . Стоит понимать что фуд ритейл это очень. Если хотим проверить гипотезу, то начинаем тестирование сравнения две торговые точки со схожей прибылью и отслеживаем результаты и изменения. Если мы видим прирост в продажах, то соответственно, масштабируем.



Figure 2 Photo from a Small supermarket



Figure 3 Shelves with promo products



Figure 4 Photo of carts from Small supermarket

Application of neuromarketing techniques in FMCG industry



Figure 5 Lighting in a Small supermarket



Figure 6 Holiday decorations in a Small supermarket



Figure 7 Parking area of Small supermarket