



The legitimization of the use of Neuromarketing by food companies

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Abstract

Dissertation Title: The legitimization of the use of Neuromarketing by food companies

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The objective of this thesis is to understand the usage of neuromarketing by food companies and to answer the following research question: How do food companies legitimize the use of neuromarketing? To answer the research question, I conducted a comparative case study. The findings show the understanding of the companies' current marketing strategy and determines the evolvement they took in form of neuromarketing. Using Neuromarketing changed their marketing strategy and helped understand their consumers and adapt their strategy accordingly. This established understanding the current trends such as the importance of being sustainable to the consumers. The interviews also showed me the gap between reality and expectations in their brand communication to their consumer's vs. in their company. The findings revealed the current status and gave room for future recommendations.

Resumo

Título da dissertação: A legitimação do uso do Neuromarketing por empresas alimentícias

Autor: Katharina-Luise Köhler

O objetivo desta tese é compreender a utilização do neuromarketing por empresas de alimentos e responder à seguinte questão de pesquisa: Como as empresas de alimentos legitimam o uso de Neuromarketing na indústria de alimentos? Para responder à pergunta da pesquisa, conduzi um estudo de caso comparativo. Os resultados mostram a compreensão da estratégia de marketing atual das empresas e determinam a evolução que elas tiveram na forma de Neuromarketing. O uso do Neuromarketing mudou sua estratégia de marketing e ajudou a entender seus consumidores e adaptar sua estratégia de acordo. Isso estabeleceu o entendimento das tendências atuais, como a importância de ser sustentável para os consumidores. As entrevistas também me mostraram a lacuna entre a realidade e as expectativas na comunicação da marca para o consumidor em comparação com a empresa. As descobertas revelaram a situação atual e abriram espaço para recomendações futuras.

1 Introduction

Researchers and marketers have always strived to optimize marketing strategies by learning as much as possible about the consumer through market research, explicit surveys, and study of their preferences and buying habits (Asif Ali Safeer et al., 2021). However, economists and marketers often run up against the limits of what is comprehensible. That is why when we reach the topic consumption, the company and the manufacturers satisfy the consumer's needs based on their predictions and potential trends by analysing the market in which their target lives in. The company has to invent a product that serves the desires of their consumers. In order to create and sell a product that perfectly fits to their consumers, the consumer has to be thoroughly researched. By simply asking the consumers what they like has never created enough insights for a company because of numerous reasons such as the fact that the consumer might not even know what he wants until the supplier created it (Joy, 2018). Therefore, marketing research started to analyse their target groups by combining neuroscience and marketing, which gave rise to neuromarketing (Stanton et al., 2017a). Innovative in both method and approach, neuromarketing enables companies (often for the first-time) to grasp honest and instinctive reactions. It gives insights to the way the outside stimuli from advertisements, or their own product is being perceived by the emotional, intuitive part of the brain and how in-turn this influences decision making (Sung et al., 2020).

The potential of neuromarketing is inventing foods or beverages that are perfectly matched with the consumer's desires.

Within literature, the inter-disciplinary subject of neuromarketing has gained increasing interest and importance, since it was first coined by Read Montague, professor of Neuroscience in 2003, with his study of people drinking Pepsi or Coca Cola while brain scans in an fMRI machine were detecting their activity (Morin, 2011). The study manages to give an insight about the activity as to when the brain lights up depending on if you are aware of the brand or not (Morin, 2011). Perhaps owed to the increasing interest in understanding the real reasons in what ways we make choices or the increased interest in the food consumption in relation to health or the desire to find out more about our implicit decision making that are mainly unconsciously done (Jookyung Kwon & Jiseon Ahn, 2021), the food industry has similarly seen an increase in the importance of understanding their consumers thoroughly (Asif Ali Safeer et al., 2021). Inextricably tied to our very human existence, food consumption is essential for our survival. So, in consideration of the ongoing impacts of the pandemic, at a

moment where many of us reconsidered our access to foods; perhaps now more than ever, the food industry and thus neuromarketing in the 21st century has the potential to hold more salience than ever in both theory and praxis.

Whilst an exciting moment for the industry, ethical limitations of this persist for several reasons (Stanton et al., 2017a). First, could this method potentially create a food that is so irresistible that it then could lead, or add to devastating health problems (Joy, 2018) ? Second, the use of neuromarketing by private companies can be seen as jeopardizing the consumer's own autonomous decision-making process, giving access to a part of the human that marketers and nobody should have access to, because it can potentially create problems such as insights into some niche feeling that could lead i.e. to exploitation of a group or an individual (Stanton et al., 2017a). Therefore, I propose to answer the following research question:

How do food companies legitimize the use of neuromarketing?

To answer the research question, I used a qualitative research approach. I carried out a multiple case study on eight food companies. Every selected company is using neuromarketing as a marketing tool to optimize their product placement and ultimately sales.

This research demonstrates that food companies use neuromarketing similarly and also share similar arguments on the use of neuromarketing: the gain a competitive advantage, a mean to better serve consumer's needs, a tool that is based on the free will of participants, and finally they see it as a tool useful to contribute to consumers' health.

The structure of this thesis starts by a general overview of the literature in the literature review of the topics buying behaviour, neuromarketing and its viewpoint of legitimacy. After that the methodology chapter presents and validates the technique of a qualitative approach. Following this the data collection and analysis will be set forth. Subsequently the empirical setting chapter provides information about the selected companies to accomplish an understanding of the backgrounds and contexts of the companies and the following findings. The following chapter about the findings represent the outcomes of the research by answering the research question. In the discussion chapter the findings will be accompanied with future recommendations and in the last chapter the overall results will be concluded, and limitations will be introduced in order to gain and put the research into perspective.

2 Literature Review

In this chapter consumer buying behaviours are analysed, the rise of neuromarketing and its legitimacy is explained.

2.1 The rise of neuromarketing

In this chapter the term neuromarketing and its meaning in this research is defined by closely looking into the field of consumers buying behaviour and the role of motives and emotions in this process.

2.1.1 The role of neuromarketing in buying behaviour

Defined as a “look” into the customer's brain and in search of understanding the purchasing decision making process, the goal of neuromarketing is to create the most efficient advertising methods possible (Lee et al., 2007). Neuromarketing is often reduced to the use of brain scanners for market research purposes, but this seemingly narrow definition does not reflect the potential of the method (Joy, 2018). The field is defined as an interdisciplinary approach that combines knowledge from neurology, medicine, psychology, biology, economics and cultural studies and transfers it to marketing theory and practice (Alsharif et al., 2021).

Despite the neuromarketing research and implementation of Wells the ultimate “buy button” was not found (Wells, 2003). The term “buy button” is here used as an imaginary button that researchers and marketers can click within the consumer’s internal decision-making process which makes the consumer “buy”. Instead, research continued to prove that brands and their related effects are directly linked to the emotions of consumers and that preferences and thus ultimately purchase decisions are made much more unconsciously and possibly even more unintentionally than previously assumed (Morin, 2011). So whilst the initial efforts of neuromarketing did not open the door to the brain of the consumer, it does continue to support marketing research in its pursuit of attention and activation of potential customers, their long-term loyalty and how brands influence their buying behaviour (Wells, 2003).

In order to better understand and assess the consumer, conventional economic approaches are increasingly drawing upon interdisciplinary methods from other scientific areas including neurosciences and cognitive sciences. The neuromarketing approach thus applies the findings

of research into the functioning of the human brain in order to better understand the effect of brands and the behaviour of customers (Lee et al., 2012).

To understand how a consumer's behaviour is influenced and formed, the following section will demonstrate the way of buying behaviour functions within the consumer.

2.1.2 The manner of buying behaviour mechanisms

To understand where neuromarketing can begin, it is vital to investigate human consumption and buying behaviour. The stimulus-organism-response (SOR) model can be used by including an internal process such as emotional states, pleasure, arousal, dominance in the organism (Sultan et al., 2021, p.).

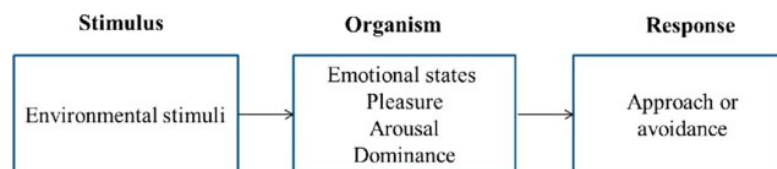


Figure 1. Stimulus Organism Response (SOR) Model (Venter de Villiers et al., 2017)

Furthermore, a differentiation is made between cognitively more strongly (limited or extensive) and less influenced (impulsive or habituated) purchase decisions. The majority of the purchase decisions are made unconsciously and implicitly (Jookyung Kwon & Jiseon Ahn, 2021). This implicit system includes not only sensory perceptions, learning processes, emotions and intuition but also brand associations and unconsciously formed brand imagery (Stumpf & Hix, 2010), which leads us to the importance of the role of the implicit system for buying behaviour and the motives and emotions that form it.

2.1.3 The role of emotions and motives for buying behaviour

To understand where buying behaviour is rooted in and which “ingredients” it requires in order to successfully recognize where neuromarketing can be implemented, the origin of the words emotion and motive are being defined: The etymology of “emotion” originates from the Latin word *emovere* “to move” and the Latin *emovere* “move out, move, shake, stir up” seems to indicate that people are driven or moved by emotions. In the PONS dictionary there is “emotion” as “psychological excitement, emotional movement, feeling, emotion” (PONS, 2001-2021) defined.

Similarly, according to the PONS dictionary, “motive” means “reflection, emotion, circumstance, etc., through which someone feels moved to do something specific, motivation comes from the word lat. *motivum* “cause, drive, motivation” and this in turn from the lat. *motio* “movement, emotion, excitement, impression” (PONS, 2001-2021). As a result, these two words denote the same origin and a very similar area of usage, which is why they are often used interchangeably, where an emotion is something that motivates people (Ross A. Thompson, 1994).

Emotions can be evoked by a direct stirring stimulus, but also by remembering an event in the past and are in any case the result of an activation paired with a cognitive interpretation (Moors, 2009). Therefore, by linking it to neuromarketing, emotions are defined as strong driving factors that control our mind, body and our goals of buying products according to our needs. In contrast, motives, are somewhat more concrete and effective at driving us, steering us emotionally and cognitively depending on the situation at hand (Fishbach, 2021). Accordingly, emotions are the basis for thinking (cognition) and therefore a result of people’s actions.

Neurobiologist and theorist António Damásio worked on “somatic markers” coined in 1996 which remain ever salient. “Somatic markers” are all experiences that are made in the course of a human life and stored in a so-called ‘emotional experience memory’ known as somatic markers (Damasio, 1996). Caused by bioregulatory processes that trigger emotion, these markers help individual’s decision making and weigh up alternatives by making use of individual experiences (Dunn et al., 2006). Damasio also explains that emotions help the brain when the decision-making-process is very complex and has a lot of uncertain aspects, circling back to the thought that decisions are made unconsciously and intuitively by uncontrolled and innate emotions (as mentioned in 2.1).

Brand expert Martin Lindstrom defines somatic markers as “bookmarks for quick access in our brains” because they simplify and accelerate the decision-making process. What is particularly interesting about this work is that “brands can function as somatic markers even before a decision-making process takes place” (Ahmed, 2010, p.256).

This in turn tells us what brain research shows: without emotions, no decisions can be made, since a person’s set of values and ultimately their decision are only determined by an emotion (Sayegh et al., 2004). That is why the emotional system and basic motives are such important

considerations for research in understanding purchase decisions (Dunn et al., 2006). However, in order to understand how exactly motives and emotions and thus ultimately decisions arise, it is first necessary to take a closer look at the human brain.

2.1.4 The limbic System and target groups of the limbic system

The goal of many models in marketing research is to gain a better understanding of consumer behaviour (Gordon R. et al., 2021). As Neuromarketing investigates on an internal level by analysing brain activities, tracking eyes or paths, it promises to give the research manager the clearest insight into the consumer's behaviour.

One of the theories to explain consumer behaviour is the limbic approach: This approach defines the human brain as the reason for its actions. Thus, the limbic approach developed three areas of brain activity from brain research and showed this as the limbic map.

The limbic map is a map of emotions. It aims to depict the various areas of human emotions and characteristics into a general overall model, to ultimately understand buying behaviour (Michael Gestmann, 2001). The limbic map consists of three areas: Stimulant, Balance and Dominance.

While the dominance and stimulant play a more expansive and activating role of urge risk and action, balance acts as a counter position: Preserving and inhibiting (as seen in figure 2). In regard to consumption decisions, this contradiction is obvious, since customers are encouraged to buy a product through stimulus and dominance signals, whereby the balance force works against it. The three “stimulant, dominance and balance” act mostly independently in influencing all decision-making processes, but there are often blends of the three.

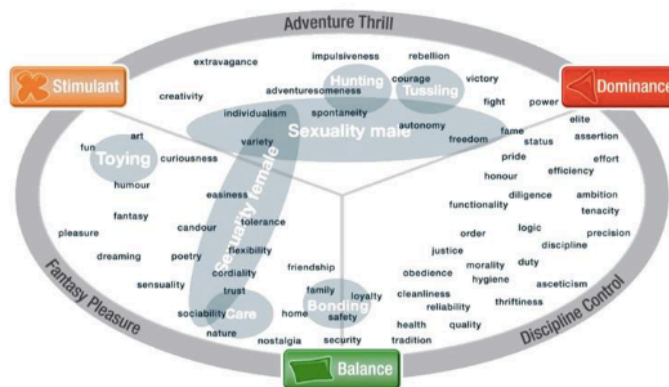


Figure 2: Limbic Map (Adlmaier-Herbst & Musiolik, 2015, p.25)

“Adventure Thrill” is the composition of dominance and stimulant. Here, the dominant part of the person wants to prove and outshine the competitors and surpass their own expectations. The stimulus-power, on the other hand, strives for variety, revolution and renewal. At the intersection of balance and stimulant we find “Fantasy Pleasure”. Here, we see the stimulation system determining an active search for new and previously unknown pleasures. Finally, the constellation of balance and dominance, which is called “Discipline Control”, has to be explained. The balance force strives for order, calm, habit and stability, while the dominance system aims to have power over all processes. However, this in turn represents the basis for any control. This mixture, which is characterized by an analytical way of thinking, strives for constancy and predictability as well as the desire for self-determination and influence at the same time (Häusel, 2005).

Armed with this knowledge marketing researchers become equipped in preparing for these different brain types and consequently their different approaches to decision-making processes, whether they are interacting with hedonists, adventurers, disciplined people, traditionalists or harmonizers. Nevertheless, it is advised for marketing researchers to have a deep understanding of their own target group because variants of gender and age amongst many others will perpetually exist and evolve (Häusel, 2005).

This is the reason why target groups are defined by using the basis of character traits, the motive and emotion systems in our brain, i.e. dominance, stimulation and balance as well as the various combinations in between. These are present in all people; however, their severity varies depending on the specific limbic type (Häusel, 2005). Consequently, this means the personality of a consumer can be represented as a mix of different strengths within their emotional system. In most cases, a clear focus can be identified so that various target groups or types devised in a practical manner. In consideration of this, the following seven limbic types can be drawn from this according to Häusel (Häusel, 2005):

- The traditionalists: tradition and security (balance & discipline / control);
- The harmonizer: Harmony and care (focus on balance & binding / care);
- The open connoisseurs: openness and enjoyment (balance & stimulant);
- The hedonists: fun and creativity (focus on stimulants);
- The adventurer: adventure and risk (stimulus & dominance);
- The performer: success and status (focus on dominance);
- The disciplined: discipline and control (balance & dominance)

The knowledge of the seven limbic buying types enables you to have an understanding of the different buying types, which leads us to the gap between explicit methods such as surveys to understand the consumer and neuromarketing which provides additional knowledge about the implicit buying behaviour (Wells, 2003).

2.2 The use of neuromarketing by food companies

Food companies are interested in Neuromarketing as a marketing tool to fully understand the implicit buying behaviours of consumers to avoid i.e. placing advertisements and products to the wrong target groups.

2.2.1 Responsibility of the food industry

The food industry is a complex network that is responsible for not only the mere transportation and supply of food (Howse et al., 2021). More importantly it carries a big responsibility because it makes decisions upon whether diets that are higher in salt and have a lower nutrition density are being produced or sold through a price range only accessible to a certain income type that can afford this food (Howse et al., 2021). The food industry is therefore responsible for making those decisions before the consumer gets a chance to decide. This can lead to children receiving less nutritious foods in their daily lives which leads to less overall health conditions and a disadvantage to parents that can afford organic food that are higher in nutrition density (Howse et al., 2021). Consequently, we need to find a product that is desired by the consumer and optimally adapted to them. This leads us to the following topic the usage of Neuromarketing in this Industry.

2.2.2 The role of neuromarketing in the food industry

At present, the vast amount of supply and array of food products can make the consumer's decision-making process harder than ever. This presents challenges not only for the consumer but also for supplier as they seek to grasp the ever-changing market and the needs of the consumers (Manik et al., 2014). Conventional methods that are used are feedback loops in terms of surveys that consumers fill out and send back to the firm (Mousavi et al., 2015). But this data collection can be difficult to verify, and it is of insignificant use because the consumer can be unable to even know what his favourite odour, taste or touch experience is (Joy, 2018). Here Neuromarketing and a direct detection of areas in the brain that become stimulated could

help the food industry as well as the consumers (Stanton et al., 2017a). Thus, it is important to consider what connects neuromarketing in food industries and its potential effects not only for the consumer but also for the supplier in the following chapter.

2.2.3 Importance of neuromarketing in the food industries

Consumers make decisions and decide far less rationally or consciously than they think they do according to current literature: Emotions are not only significantly influencing all decisions of the consumer; they also manage to make decisions for them (Jookyung Kwon & Jiseon Ahn, 2021). By embracing neuroscientific methods, it is possible to research what happens between stimulus and response (see chapter 1) and consequently better understand the consumer and his behaviour. By acknowledging and centring the important role of the emotion system it signifies for marketing research and practices to consider the potential drivers of emotions and motives that lead to creating the optimal product or brand image. According to Häusel, this is most effectively communicated by a brand, because a brand is “just a place in the human brain”. Further, considering a brand being “a place in the human brain” it appears convincing to apply neuromarketing because neuromarketing aims at accessing the human brain directly. However, the intimate method of neuromarketing such as direct brain scanning leads us to consider the invasiveness and the boundaries of the consumer’s privacy, leading to the topic of legitimacy. Because of the brain area that is examined it is valid to ask whether this is a legitimate procedure or if it is too intervening in the consumer’s privacy. This leads us to the topic of the viewpoint of legitimacy and therefore the limitations of the neuromarketing.

2.2.4 Limitations of neuromarketing

Apart from the critics that are raised against neuromarketing there are certain limitations to its use and implementation. Aside from the ethical concerns there has to be a certain skill set available. On one hand you must have a high theoretical quality of knowledge and also equipment that is expensive and you have to have staff that is experienced in conducting these experiments and being able to decode this information into usable content to a company. The main limitation that has to be discussed before and is time consuming is making sure that you are informing the participants of every data collection and the agreement to the terms and conditions that could potentially violate their privacy. This development of thought leads to the research question.

2.2.5 Critics of the implementation of neuromarketing

By implementing neuroscience in the conventional marketing research raises critics. The two main critics are predicting and influencing consumer choice (Stanton et al., 2017b). Predicting the choice of the consumer is potentially violating the privacy of the consumer. By seeing neuroscience as a medium that can see into consumer's brain and see information and gain insights of the individuals that they themselves did not know existed is seen as a violation of privacy (Stanton et al., 2017b).

Furthermore, the second critic of the use of neuroscience as a marketing tool builds upon the first critic. It is not only predicting the choices but also influencing their choices. This is seen as a form of deprivation of their own control over their decisions and choices which then in turn makes a product not resistible and lead to an over consumption and to potentially uncontrollable health issues such as obesity. Another potential concern is that by using neuroscientific methods it can create an irresistible food because it is so well adapted to the consumer's needs that it could lead to obesity, a devastating health issue (Joy, 2018).

The application of neuromarketing by private companies may threaten the consumer's ability to make autonomous decisions because the marketers have access to the consumer's brain that the consumer himself is not even able to verbalize, which can lead to problems such as i.e. to an exploitation of a group or an individual (Stanton et al., 2017a).

To better understand the use of neuromarketing by food companies despite the critics, I propose to answer the following research question: How do food companies legitimize the use of neuromarketing?

To answer the research question, I will introduce the literature on legitimacy.

2.3 Legitimacy

According to legitimacy theory, organizations report their activities voluntarily if their management perceives that those activities are expected by the communities where they operate. In fact, legitimacy theory is based on the idea that there is a "social contract" between a company and its society (Charbel Chedrawi et al., 2020). This theory explains why companies employ social initiatives and publish information about their approach and activities voluntarily. For them to be regarded as a value-adding part of society, they must respect the values and norms (Charbel Chedrawi et al., 2020).

2.3.1 The definition and significance of legitimacy

Legitimacy can be defined by the legitimacy theory of Deephouse and Suchman. It says: „Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions.” (Deephouse & Suchman, 2008, p.51). Therefore, companies have to be aware of the social challenges with the attached legitimation strategies in order to maintain the legitimacy. As society has expectations that are of a moral and economic nature, the company ultimately creates prosperity for society due to the economy where the people (society) work in and also the other way around because the company depends on the resource who are the people that work (in society). Ultimately, this creates an interdependency between the company and the society (Deephouse & Suchman, 2008). This theory explains why companies take social and environmental factors into consideration and making information about their actions available. Companies have therefore a strong relationship with the society they work in. They need to respect the norms and values and expectations of the society to make sure that they add value and therefore be seen as legitimate and keep themselves economically effective by gaining legitimacy.

2.3.2 The importance of legitimacy in the field of neuromarketing

Scientists have long criticized neuroscience research that emphasizes localized brain functions instead of the widespread deployment of neural networks. Even neuromarketing sceptics recognize that neuroscience offers valuable insights into significant phenomena like attention, emotion, and memory, which are crucial to motivating consumers. But without legitimacy underlying these methods, the area of neuromarketing is viewed critically and cannot expand its usage in the consumer research (Bartholomew, 2018).

3. Methodology

This chapter will outline the research method that was implemented for this thesis and furthermore will justify the use of the method in order to answer the research question. Additionally, it will outline the data collection and analysis, respectively.

3.1 Justification of the research method

To answer the defined research question and guided by Bergs' recommendations (Berg, 2009) my interviews followed a semi-structured format so as to guide, yet not restrict the questions asked. In doing so, enriched data and new paths of enquiry were explored which originally may not have been considered by the researcher (Berg, 2009).

The result is a more open question answer interview style because therefore there is no "interviewer effect" or socially desirable behaviour (Pratt, 2013). This enables the interviewer to receive information and real viewpoints about neuromarketing. That way it gives an insight as to how they actually perceive the topic by trying to eliminate socially desirable behaviours and an interviewer effect. I used the multiple case study format which helps to find similarities and differences between companies who all already implemented neuromarketing as a marketing tool in their food companies. This gave me an insight as to whether they are having similar viewpoints on neuromarketing.

After 11 of pre conducted interviews with a sample of interviewees from the food companies and mostly managing and marketing research positions, I narrowed it down to the ones that I can access valuable information from concerning my research question, which left me with 8. I interviewed the companies from the food industry that either partly owned the company or had executive positions. I interviewed them in order to gain a sample size and valuable information. By interviewing not only one company, I got a bigger variety and therefore perspective on the viewpoint of neuromarketing. The answers of all 8 of them served as the basis of analysis and discussions and conclusions.

Interviewee 1: Casimir Rob co-founder of Every Foods (not used because did not implement neuromarketing)

Interviewee 2: Christopher Carusso founder of Vacay (not used because did not implement neuromarketing)

Interviewee 3: Philipp Preussen Wallters (not used because did not implement neuromarketing)

Table 1: Overview of all eight interviewees and their positions, company name and interview length

Name	Position	Company	Interview Length
Interviewee 4: Guido Pallini	Entrepreneur	La Maremmana	35 minutes
Interviewee 5: Anonymous owner	Restaurant owner	-	30 minutes
Interviewee 6: Claudia Kleyboldt	Head of Market Research and Insight Management	Rügenwalder Mühle	40 minutes
Interviewee 7: Anonymous Marketing Manager	Marketing Manager Anonymous spread company	-	31 minutes
Interviewee 8: Marketing Research Manager	Marketing Research Manager at anonymous spices company	-	35 minutes
Interviewee 9: Anonymous Manager chocolate company	Anonymous Manager chocolate company	-	38 minutes
Interviewee 10: Susanne Jansen	Brand strategy consultant	Susanne Jansen Markenberatung	36 minutes
Interviewee 11: Thomas Ebenfeld	founder and managing partner	Concept m research + consulting GmbH	35 minutes

The Interviewees were contacted by phone and previously checked via WhatsApp and email if available at that time. It was in some cases a face-to-face interview via zoom and in others a phone call of minimum 30 Minutes.

3.2 The data collection

The collection of data started with the first draft of my interview script and a beverage company called Vacay where I had the chance to interview the founder. From this point onwards I

understood that I have to narrow it closely to my research field, namely the food industry. I also understood that I have to narrow it down to actually ask questions that will give me answers to my research question.

Table 2: Thematic categories guiding the interview

Thematic category	Description	Interview questions
Theme 1: The companies neuromarketing strategy	The company's marketing strategy concerning the already existing use of neuromarketing for their brand	Nr.1, Nr.2, Nr.3
Theme 2: The companies view on legitimization concerning neuromarketing in food industries	The company's view about the legitimization of the implementation of neuromarketing and within the food industry and their concerns/challenges.	Nr.4 Nr.5, Nr.6, Nr.7
Theme 3: Economic benefits of neuromarketing	The company's benefits of using neuromarketing economically concerning their own goals	Nr.8, Nr.9, Nr.10

I created a new interview format to combine the theory and the empiric that has the three themes. This process helped me gain good-quality research data from the interviewees. As the interviews were semi-structured which means that I had a clear structure that I could refer back to but allowed the interviewee to speak openly which allowed them to flow and share information that are maybe not asked but relevant for their specific brand and brand's evolution. This kind of information is particularly important in this case because I need to find out their opinion and honest views about the implementation of neuromarketing. The companies are not based in Portugal, that is why the interviews took place through phone calls and before a briefing about the subject, which enabled me to build an importance and connection with the interviewees, which additionally added to an in-depth understanding. Furthermore, data triangulation served the data collection process which is adding strengths to the research's quality. Secondary data was unable to receive through the companies because companies do not want to reveal anything publicly about the usage of neuromarketing. Secondary data was unavailable for the companies I reached out to.

3.3 Data analysis

After receiving permission of the participants, I recorded the interviews to be able to go back to them when transcribing them. The collection of data happened was provided in primary data that was gained through the interviews. The transcription first happened from German to English, so that no important key information pieces got lost. I created a code-system to be sure to have all the key aspects mentioned. This code-system was used to analyse the content. Every relevant answer of the interviewee to the interview question was allocated to the matching codes. This made it possible to identify often used, related and contrasting statements throughout the interviews. I used the deductive-inductive content analysis technique because therefore I could use the codes and have categories that were determined by the research carried out (Fridberg et al., 2021). I created in excel a table that contains all the important aspects of each question answered by the interviewee which are assigned to the codes respectively. This helped me to identify statements across all given statements for that question. The identifications of similar and of different statements were enabled this way. Therefore inductive and deductive content analysis was used which enabled the coding and the development of categories (Andersson et al., 2015). This development was determined by the research question and the answers of the interviews. With this I created a map based on the three main categories and subcategories. For instance, I defined the code “implicit behaviour” and I assigned this code to the statements of the anonymous spread company, “We found out how consumers view butter, namely they are rational about this decision and they put it mostly in the health segment. They look for healthy comments on the packaging”. Another example that was assigned based on the primary data collection by Claudia Kleyboldt, “ At the end of the day by using these methods and going deep on the consumer’s implicit system we are able to create products that are more wanted by the consumer”, the code: legitimate because products can be created that are adapted to consumer needs was assigned. From this I was able to collect findings from the data set and with this map the findings, results and further recommendations was evaluated. In the appendix every interview can be found and the list of the codes, in the tables 1 and 2 the themes and categories can be found.

4 Empirical Setting

To answer the research question, I interviewed 11 companies, 8 of which were used because these eight implemented neuromarketing. I will present some key facts and findings about the companies that were used.

Starting with **La Maremmana** which is an artisanal cheese factory located in Grosseto, it was founded in 2017. But it has been a family business since the 1980's. It produces and sells buffalo mozzarella and other buffalo products. The cheese factory is part of a historical family owned dairy farm that produces cereal, herds' buffaloes, offers tourist accommodation in its agritourism's and produces renewable energy. They manage to create a cycle in the food industry and therefore reach out to have a sustainable plan for the future food industry that proves itself to be successful since the 1980's with increasing production of cereal and fodder for animal feeding on their land, breeding buffalos, producing buffalo milk, making cheese with the buffalo milk and use all the by-products to produce renewable energy and use this energy to power the whole business. I interviewed Guido Pallini to understand what his views on neuromarketing are in terms of thorough research in the first place and activating this form of neuromarketing which they did in terms of eye-tracking in their shop where you can taste the variety of cheeses and wines and local products to understand what people were interested in the first place while entering and they found out interesting findings, for example that the sustainability idea is a strong suit while marketing the products (La Maremmana, 2017).

After this an **anonymous restaurant owner** was interviewed. The restaurant is a wine and beef restaurant that opened right after the first big covid-19 lockdown in the fall of 2020. They are offering a small selection of wines and biologically fed cow meat at a high quality. They were in the beginning reaching customers through word of mouth and then after the first big start, they were starting to feel a slight empty wave in terms of new customers. They are now targeting more through media such as Facebook and content creation on Instagram. The visibility has to be much higher and is improved through neuromarketing in the near future in order to understand how customers actually react to certain new flavour combinations and menu changes.

Claudia Kleyboldt is working at **Rügenwalder Mühle** which is a German sausage producer, which are successfully undergoing a transformation from a purely meat-based company to

transforming parts of their core business into plant-based products. Since 2014 Rügenwalder Mühle sees the substitutes to meat as benefits to the environment as it also averts CO2 emissions. Rügenwalder Mühle increased their sales from 191,6 million euros in 2019 to 233,7 million euros in 2020. The company focuses on two successful areas equally, namely the classic meat and sausage products and the vegetable protein substitutes. Both equally represented the growth in terms of revenue (Rügenwalder Mühle, 2021).

The **spread company** that wants to stay anonymous as well is a company that produces all sorts of spreads and produces their strongest revenue through butter and margarine. They are economic friendly and biologically retrieving milk methods from local farms. They are growing and especially benefitting from the role of neuroscience methods.

The anonymous **spices company** is a relatively young company, more a start-up that specializes in spices and the compilation of spices to a certain dish. You don't only buy one spice that you mix yourself, you buy a spice that you can put over your chicken and then you have the full amount of spices for a "cordon bleu" for example. They have a big variety of spices that are filled with healthy ingredients and shock dried technique is used which preserves all the necessary vitamins and flavours. It has made good experiences with neuromethods.

The anonymous **chocolate company** is a traditional company that only newly started using neuroscience to understand their new younger target group that they normally have not sufficient enough means to advertise and find a channel to reach them. And even with using social media strategies they didn't know what their target group actually desires and what is important to them. They are understanding neuromarketing as a really important tool for them as the product is an emotional choice rather than a rational one, therefore the implicit behaviour is vitally important to understand and detect.

Susanne Jansen works at a brand strategist in her own **brand consultancy**. The path of getting her led her to work at various different companies where she worked as a Chief Marketing Officer at laverana GmbH and before that as a marketing strategist and before that in research and strategy companies where she worked with neuromethods. She works with food companies most of the times when they request consultancy about their brand which leads to the assumption which she also confirmed that the food industry is such an interesting field to

implement neuromarketing in because of the implicit decision-making process that you only detect by using techniques to analyse reaction stimulus measurements for example.

My last interview was with Thomas Ebenfeld who is the founder and managing partner of **concept m research + consulting**. He studied psychology and business administration and is trained as an analytical intensive consultant and is a graduate of the Cologne Academy for Market and Media Psychology (KAMM). He is working on becoming a psychological psychotherapist for 10 years (Marktforschung, 2006-2021). He looks at neuromarketing from a psychological point of view and used neuroscience since it first became a hype 10 years ago, as he told me. He views the methods more on a critical level and on a psychological level as he works as an in-depth psychologist and therefore has a critical standpoint towards this hype by using the neuroscience data. He has the opinion after all his research that the only thing one has to be careful with is making sure to put the data in context to the consumer.

5 Findings

As I mentioned above in the Literature Review the research concentrates on legitimization of neuromarketing by food companies and aims at answering the research question: How do food companies legitimize the use of neuromarketing in the food industry? To answer this question, I studied eight food companies. The analysis shows that food companies use for types of argument to legitimize the use of neuromarketing against possible ethical limitations.

5.1 A tool to better serve consumers' expectations

The overall similarity between all statements was the detection of the actual consumer reaction. Only through neuromarketing the companies are able to reach out to the consumer's needs and are able to understand the implicit behaviour and decision-making process of the consumer and therefore are able to act on it and create products and market them correctly for the consumer to be of value. This shows a positive view of this implicit behaviour being legitimate data for understanding the consumer.

As the Head of Market Research and Insight Management of Rügenwalder Mühle said: *“without knowing the implicit reactions through our stimulus response measurement of their consumer's they do not know what actually moves them and makes them interested in certain products.”* (Interview Claudia, question 3).

5.2 A tool primarily perceived as being based on free will

The interviewees describe neuromarketing as ethical because of the fact that everyone is able to participate in it with his or her own free will and therefore it is not viewed as if the methods are intrusively accessing consumer's brain or privacy. Only one interviewee (Thomas Ebenfeld) raised this subject with one vague answer: “Yes it is legitimate, but maybe difficult to have actual results because the moment you use them as a method the wording of it all changes as soon as you interpret the result and maybe attribute a word to an emotion that is not correct and then it changes the results” (Interview Thomas Ebenfeld, question 4). According to Thomas Ebenfeld there is a transcription limitation, because the moment you express emotions into words, actual meanings can get lost and ultimately lead to illegitimate outcomes because of wrong meanings that can be attached to the statement. According to all other Interviewees is that there are no issues of ethics, because they are solved by the consent

questions that they ask before conducting these methods. Another potential limitation could be that by asking the Interviewees for their consent, the actual questions that are following in the interview cannot be predicted by the Interviewee and therefore not be covered by the consent.

As Susanne the brand strategy consultant at Susanne Jansen Markenberatung explains: “...*Yes, in any case its ethical and legitimate to use it and the method is just better than the explicit ones because we look into what the consumer really wants. I don't see the ethical problem at all.*” (Interview Susanne, question 4)

5.3 A tool helpful for the health of the customers

The results show that food companies even go further and use the health argument. Neuromarketing is viewed as especially helpful in the food industry because it is an industry that depends on instinctive, implicit decision making that the company does not know before using neuromethods because consumer themselves most of the times do not know. Yet, the applicability also depends on the product: What I found through the different interviews was that products with a lower and more rational involvement including spices or spreads are less dependent on neuromarketing than products such as chocolate where the consumer is highly emotionally involved, owing to the ‘treat’ nature of the product. As opposed to this butter and other spreads tend to raise questions of health concerns and therefore require less impulsive decisions.

As the anonymous manager of a chocolate company says: “*Neuromarketing is so interesting in our segment due to its emotionally charged segment. It provides a challenge specially to identify the emotions and trying to understand why they are charged and react to certain stimulus.*” (Interview anonymous chocolate company, question 5).

5.4 A tool requiring data applicability and contributing to the competitive advantage of the firm

The findings show that the interviewees view neuromarketing as legitimate because they perceived it as a measure of economic effectiveness. Economic Benefits are placed above and after the legitimization. The main similarity was that every company agreed to neuro methods

helping them achieving the brands goal which was most of the time increasing brand awareness and increasing sales.

According to the findings there is a clear competitive advantage because of the amount of insights that you collected that would not be possible through normal marketing methods which gives you a clear advantage compared to firms that do not use it. It was only useful if you use it in combination with the context of your target group.

It was agreed by everyone that it can increase sales and therefore an implementation of neuromethods benefits the companies economically. Thomas Ebenfeld said that it would not increase sales alone only by combining it with the data of the context of the consumer. The data collected from neuroscience is only valuable by matching the results of neuroscience to the actual context of the consumer.

As the Head of Market Research and Insight Management of Rügenwalder Mühle said: *“I think it substantially increases sales. But not by using the mere data but more by having a good agency that combines the context of the consumer and the collected data about their implicit behaviors.”* (Interview Claudia, question 10)

6 Discussion

By looking at the interview statements and the theoretical framework in the literature review it can be assessed that the implementation of neuromarketing is viewed as a legitimate marketing tool by companies in the food industry. In respect on the earlier raised questions (see above Introduction) the results can be discussed as follows:

In respect of the question whether there are ethical limitations, it turns out that the vast majority of interviewees do not consider such concerns only one noticed an element which was more related to the technical applicability rather than an ethical limitation. However, the fact that companies were not open about publishing secondary data might to some extent question whether neuromarketing is as legitimate as the managers stated it was.

Further the question of potential health problems of creating irresistible foods was not directly answered through the interviews. But a link between health issues was found through the interviews because it occurs that using neuromarketing is more important when applying it to emotionally charged products such as chocolate rather than spreads such as butter because the more emotionally charged a product is the more implicit the internal decision making process becomes. Thus, neuromarketing could increase the consumption of unhealthy but emotionally charged products. The question whether neuromarketing intervenes into the consumer's brain was answered by the interviewees stating that through the consent asked by the conductor it is viewed to be ethical enough for using this as a method to analyse the consumer. Additionally the interviewees stated that by using neuromarketing the company's general marketing strategy is not solved because you need the analysis of your target group and the context of the consumer to be able to use neuroscientific data. It is also seen universally that it ultimately increases sales because of the insights that you gain to understand your target groups. Thus, the interviews conducted give an insight about a realm of research, namely having additional data about the consumer's information and stimulus-reaction-measurements. This shows that the research about the consumer and therefore using explicit methods such as surveys or interviews or questionnaires is still vitally important in order to successfully implement and work with neuroscience data as a marketing researcher.

7 Conclusion

In conclusion there is to say that this research successfully achieved the goal of understanding the views on legitimization of neuromarketing in the food industry. The ultimate purpose was to understand how food companies legitimate the use of neuromarketing despite ethical limitations.

The qualitative research showed that the managers have an in-depth knowledge and strong views about the use and implementation of neuromarketing. New brand- building purposes such as engaging festivals to activate your brand are vitally important to combine this with neuroscience in order to have a 360-degree understanding of the consumer. It is clear to see that the marketing strategies are not only there to use them unilaterally but more multilaterally.

There is to say that this work has limitations because of limited amount of time for the thesis and the multifaceted and controversial nature of the topic. Most companies that use neuromarketing do not want to reveal to which extent they use it and do not want to speak publicly about it. This is why interviews are difficult to schedule and published secondary data was unavailable for the companies I reached out to. An additional the absence of published secondary data from the companies, after an extensive research on collecting secondary data from the chosen companies. The thesis is conducted through semi-structured interviews which has the benefit of the interviewees being able to talk openly but guided. This can have limitations of people giving socially desirable answers which the interviewer cannot have an influence in. Nevertheless, the interviewees have an in-depth working experience with neuromarketing and serve as experts in this area and therefore these findings are there for future research for example through a focus group. Through a focus group you can explore the actual implementation areas of neuromarketing. It would be interesting to have more interviews in various companies first internally and then compare them across industries. After interviewing the different companies in this thesis it would be interesting for further research to interview them again in 5 years in order to draw a comparison between the results and the views that have changed and the industries that have evolved or changed and which factors still stay relevant.

8 Appendices

Appendix 1: Interviews

Interview with an anonymous restaurant 27.Oktobre at 3 pm for 25 minutes

1. What are the different marketing strategies that you implement?

I have worked mostly with consumer observation and a lot of research over the past decades. Especially consumer analysis through surveys and having an informal chat with them

2. What is the role of neuromarketing in these strategies?

We tried for example having wine degustation and trying to sell more of our French wines and had the idea of influencing our consumer's by playing French music and it really worked. This is what brought me to the idea of using neuroscience as a marketing research tool because it would give me the real insights rather than socially desirable answers in a chat with me that could be a bit biased. We used eye tracking movement.

3. How did you use your findings?

We use the findings to give to understand the implicit decision-making processes that we otherwise would have not found.

4. What comes to your mind when you think of Neuromarketing? Do you think its legitimate to use it?

I think of products that are actually perfectly suited to the consumer's needs. I dream about a restaurant where everyone is perfectly honest and has dishes and wines that they desire.

5. What do you think makes your food industry interesting for Neuromarketing? What challenges does it provide?

The food industry is the one most valuable for neuromarketing because people have to make good decisions and make decisions that automatically affects them because they are literally inserting this decision into their body. This is the one area where food decisions are almost completely made impulsively in my opinion from what I saw and observed through the years.

6. According to your own opinion, what factors play an important role for the food industry when it comes to neuromarketing?

What was so interesting for me to see was what actually made the consumer look more to one description on the menu than another wording. We used eye tracking on our menus.

7. Would you consider your store as part of an industry that clearly and effectively uses legitimate measures to market their products? Have you ever been in a situation where you felt this being violated?

I never found myself in a situation where this was violated. But I have to say that it is not only about having this data it is also about knowing how to read it and use because otherwise it is useless.

8. Do you think neuromarketing supports your marketing goal in your store for this year?

I think it definitely supported our goal because due to that we adapted our menu and increased sales and happiness.

9. How can having brain detectors and a lot of different neuromethods help to be better than your competitors?

You have a clear advantage because you can see and develop ideas that are built on the true raw data of the consumer without them even noticing this and knowing what they desire. You are one step ahead of them.

10. Do you think it could substantially increase sales?

In the long run it increases sales, but you have to be a bit patient. By knowing more about the consumer, it can only benefit you in the future.

Interviews with Guido Pallini (La Maremmana) 2. November at 4 pm 30 minutes

1. What are your different marketing strategies?

We have agriculture, farming, breeding and a cheese factory, a little shop and agritourism. And we follow only a marketing strategy for the agritourism and our shop because those are our B2C branches. For the agritourism we used a lot of word of mouth and social media and now increasing visibility on Instagram and for our shop its only Facebook and Instagram where we link our website.

2. What is the role of neuromarketing in these strategies?

The role of neuromarketing only applies to the shop where we managed to detect eye movements to understand what is important for the customer.

3. How did you use your findings?

We used it to understand and define the potential and the meaning of different buzzwords that we thought were important to the customers. We found out that products that indicated on a label that they were organically fed (our cow meet) or in the farm produced and had an extra sustainability remark on it were the ones the customers looked out for or these products grabbed their attention. Therefore we decided to leave these in places where the customers would not immediately have their eyes pointed to and leave products that were not so popular on the height of the eyes of the consumer which worked very well and ultimately we changed all the labelling to the ones mentioned above now.

4. What comes to your mind when you think of Neuromarketing? Do you think its legitimate to use it?

I think of using different kind of stimulus that act on the neuro-system to buy a certain product. I saw a Becks beer advertisement and it said it has a sour taste to it and in the ad they say bitter but honest which shows to me that they engaged in their target group and did research and tried to find out with which maybe also seemingly “bad” connotations like a bitter taste they could grab their audience. And therefore, it is definitely legitimate to use and the customer has the feeling of being listened to and in a way appreciated.

5. What do you think makes your food industry interesting for Neuromarketing? What challenges does it provide?

The industry in itself. (Cheese making) You have to know what your customers think about. The sustainability is so important, and it is part of the business. You need a feedback. You have to try and see how to be more sustainable. The processes have to be more sustainable. There is a lot of advertisement in cattle breeding. I have been reading about how to make this carbon negative. Research about the opinions. It is very important in general. To adapt to what your customers are interested in. Plastic: reduce. We have to follow the market trends. And be specialist in our fields because we are the ones that provide them with their nutrition's, and we know it better and make the choices before the customers even have the chance to make a choice. I am reading economic newspapers and adapt our business accordingly wherever I can to make it more profitable while listening to my target groups.

6. According to your own opinion, what factors play an important role for the food industry when it comes to neuromarketing?

I would want to know how the statistics are done. How big are the data sets? What is the economic level of the people they surveyed? The clients they use. The first thing is to validate the clients. How the statistics are made?

7. Would you consider your store as part of an industry that clearly and effectively uses legitimate measures to market their products? Have you ever been in a situation where you felt this being violated?

Yes, definitely increased our sales and I never found myself of this being violated.

8. Do you think neuromarketing supports your marketing goal in your store for this year?

It is a very useful tool. And it helped a lot and now we have to focus more on the implementation, but I would like to use these type of tools once every two years and do a broad research to optimize. We are not able to have a

constant neuromarketing team but If we could I definitely think it would increase our sales even more and increase our visibility which is our marketing goal especially now after Covid.

9. How can having brain detectors and a lot of different neuromethods help to be better than your competitors?

Simply because of the accuracy which demonstrates a clear competitive advantage in contrast to the usual methods such as interviews and conduction of surveys.

10. Do you think it could substantially increase sales?

If you manage to choose the right media it does improve our sales. We have seen a little bit of this and we are online and did some campaigns and we got a specialist and the impact on sales and commission and they provided us with already a substantial increase in sales.

Interviews with Claudia Kleyboldt (now working at Rügenwalder Mühle) 25. November at 8 am

1. What are the different marketing strategies that you implement?

I have worked mostly with Kantar TNS in the marketing research area and Kantar is one of the world's leading companies for data science, insights and consulting. And now at Rügenwalder Mühle. The marketing strategy I saw in food industry companies was such a wide range and so different according to the products and their target groups.

2. What is the role of neuromarketing in these strategies?

We used mostly path analysis and the recording and concrete eye recording. The role of Neuromarketing was essential in understanding the consumer's orientation in a store and what stimulus in terms of packaging grasp the consumer's attention. And if certain product function as so called Anker product that automatically stimulate the consumer's attention without them realizing because they have been set to the stimulus since their childhood for example. We had this phenomenon with Heinz ketchup. Therefore we could give the recommendation to modify the marketing strategy in terms of the shelf placements (which products are important and which products are a waste of shelf space because consumer's don't look in that direction anyways).

3. How did you use your findings?

We use the findings to give recommendations to the food industry because they rely very much on these results because without knowing the implicit reactions through our stimulus response measurement of their consumer's they do not know what actually moves them and makes them interested in certain products.

4. What comes to your mind when you think of Neuromarketing? Do you think its legitimate to use it?

In the beginning when I first started using these methods in 2005 in my internship, I thought about the effect it could potentially have in detecting behaviors and reveal unconscious behaviors. But then over the years I realized that everyone who participated, participated freely. At the end of the day by using these methods and going deep on the consumer's implicit system we are able to create products that are more wanted by the consumers. Therefore, I think it is very legitimate to use it because it is a win- win situation.

5. What do you think makes your food industry interesting for Neuromarketing? What challenges does it provide?

I think Neuromarketing is especially interesting in the food industry because it is an industry where people increasingly decide impulsively. And so often people didn't know what actually attracted them to this product and what made them chose it. Therefore, it is almost impossible to get these insights through surveys. The only challenge it provided was the usage of brain scans because it is expensive and at the end of the day we got similar results with our other methods eye scanning and path analysis and recordings because the context of the consumer is the variable that is vitally important. That is why mere brain scanning data is not really usable.

6. According to your own opinion, what factors play an important role for the food industry when it comes to neuromarketing?

Seeing the autopilot of the consumer. The impulsive short buys that happen without the ratio of the consumer. Seeing what the trigger points of the consumer are.

7. Would you consider your store as part of an industry that clearly and effectively uses legitimate measures to market their products? Have you ever been in a situation where you felt this being violated?

No, I never found myself in a position where I felt that I am violating the legitimization of these methods because in the marketing research method and work itself the consumer is a part of the research. He is seen as a research object which he agrees to be a part of. Everybody is free and free to walk away and not answer at any time. What is important is the education about the proceedings is important. Data protection is retained. It was interesting to see that most of the consumer did not participate in order to create a better product but more to simple have a voice that people are interested in which is clearly shown in the self-presentation trend that currently dominates also social media platform such as snapchat or Instagram or you name it. But in fact, the consumer will create for example a better shelf placement that helps him in the finding process and not being disturbed by 500 other products that he is not interested in and are irrelevant for the supermarket sales as well. Because it was also interesting to see that by doing research 80 % of the finding processes of consumers are not further proceeded in a supermarket for example because they cannot find it and do not have patience for it. This is why in my opinion ultimately the usage of neuromarketing is only beneficial and a win-win situation for both supplier and consumer. The supplier knows what will be put into shelves and the consumer gets what he wants.

8. Do you think neuromarketing supports your marketing goal in your store for this year?

The goal of the companies where clearly evaluated before and every time the goal was to increase brand awareness and sales at the end. Neuromarketing definitely helped achieving this goal because the data that we collected was otherwise not attainable through other methods. But the most important factor was putting it into the context of the consumer in general because you can have all the eye tracking and brain scanning data that you want if you don't understand your target group, you can't combine these two variables and the data becomes less useful. You have to understand the big picture and you can clearly only achieve your sales goals by adjusting your advertisement to your target.

9. How can having brain detectors and a lot of different neuromethods help to be better than your competitors?

You have a clear advantage because you have data about their implicit behaviours. This gives you an advantage but only if you have it as an add on and use your other data through surveys and engagements with your consumers as well. But through neuromethods you receive implicit and with secondary data as a combination you get the full picture of the consumer.

10. Do you think it could substantially increase sales?

I think it substantially increases sales. But not by using the mere data but more by having a good agency that combines the context of the consumer and the collected data about their implicit behaviours.

Interviews with anonymous marketing research manager for spreads (mostly butter and margarine) 1.Decemeber at 11 am

1. What are the different marketing strategies that you implement?

We are doing Point-of-Purchase (POP) Marketing and Social media Marketing and Direct Selling.

2. What is the role of neuromarketing in these strategies?

We used mostly concrete eye recording. The role of Neuromarketing was essential because we managed to understand this industry, how they actually feel about spreads and in turn what can we change to increase our sales.

3. How did you use your findings?

We use the findings only in combination with our consumers. We found out how consumers view butter, namely they are rational about this decision and they put it mostly in the health segment. They look for healthy comments on the packaging. Therefore, we knew that we have to advertise more in the direction of labelling the packaging with the key benefits that improves health such as bone-building calcium for example.

4. What comes to your mind when you think of Neuromarketing? Do you think its legitimate to use it?

I was opposed to the idea in the beginning but then I was in need of a change because I worked with all the other methods such as surveys and conversations with our target groups and focus groups and you name it and we didn't

increase sales because of the segment we are in. We only interviewed people who wanted to help and participate and therefore I think it is legitimate to use it because they wanted to have an improved product as well.

5. What do you think makes your food industry interesting for Neuromarketing? What challenges does it provide?

I think it is interesting for every industry that sells something because of the valuable insights you gain. But for the food industry especially interesting. It provides challenges, especially because you have to have a good researcher as a person that evaluates your data in combination with the consumer. This is the transfer you have to be able to have because the data alone is not helpful.

6. According to your own opinion, what factors play an important role for the food industry when it comes to neuromarketing?

Seeing the consumer as a person who decides according to their implicit system.

7. Would you consider your store as part of an industry that clearly and effectively uses legitimate measures to market their products? Have you ever been in a situation where you felt this being violated?

No, I never found myself in a situation of this being violated and I think we clearly and effectively use legitimate measures.

8. Do you think neuromarketing supports your marketing goal in your store for this year?

The goal was to increase sales and it did. It took a bit of time.

9. How can having brain detectors and a lot of different neuromethods help to be better than your competitors?

You have an advantage because of the detailed insights that are sometimes unreasonable but broadly happening amongst the target groups. Although our product is relatively rationally to be decided product and it doesn't involve a lot of emotions it is still an aspect regarding the packaging and the perceived value of it that makes the consumer decide whether to buy it or not.

10. Do you think it could substantially increase sales?

I think it substantially increases sales in our case, but you have to evaluate your data and have a bond to your target group because otherwise it is not that useful.

Interviews with anonymous marketing manager for spices 1.December at 11:30 am

1. What are the different marketing strategies that you implement?

We are doing Social Networks and Paid Media Advertising as well as Direct Email Marketing and POP Marketing.

2. What is the role of neuromarketing in these strategies?

The role of Neuromarketing was important because we managed to realize in which segment our industry is based and can adjust our marketing accordingly.

3. How did you use your findings?

We use the findings only to increase sales.

4. What comes to your mind when you think of Neuromarketing? Do you think its legitimate to use it?

I think it is a great way of understanding your consumer and it is totally legitimate because we inform everyone of everything. And I think it is legitimate.

5. What do you think makes your food industry interesting for Neuromarketing? What challenges does it provide?

For us there were so many hidden messages that we were not able to detect before using neuromarketing and I think this is a phenomenon especially important in the food industry because here you deal with products that require a lot of internal behaviors within the consumer that he himself doesn't even know of.

6. According to your own opinion, what factors play an important role for the food industry when it comes to neuromarketing?

The decision making processed, the stimulus that gets triggered by certain packaging, wording or ingredients.

7. Would you consider your store as part of an industry that clearly and effectively uses legitimate measures to market their products? Have you ever been in a situation where you felt this being violated?

No, I never found myself in a situation of this being violated and the measures we take are legitimate.

8. Do you think neuromarketing supports your marketing goal in your store for this year?

The goal was to increase sales and it did. It took a bit of time.

9. How can having brain detectors and a lot of different neuromethods help to be better than your competitors?

You have an advantage because of the sum of information that you receive of the consumer's decision done by their internal system.

10. Do you think it could substantially increase sales?

In our case we need more data about our consumers.

Interviews with anonymous marketing manager for a chocolate company 1.Decemeber at 12:30 am

1. What are the different marketing strategies that you implement?

We are doing Co-Branding, Social Media, POP marketing and Direct Marketing.

2. What is the role of neuromarketing in these strategies?

Our product is an emotional segment and more of a "treat yourself" product. We are placed in a luxurious area where people make decisions solely based on their emotions. That's why the insights of neuromarketing are so vitally important for us.

3. How did you use your findings?

We use the findings at the end of the day to increase sales.

4. What comes to your mind when you think of Neuromarketing? Do you think its legitimate to use it?

For us it is an optimal way of thoroughly understanding our consumer because otherwise we really can't collect enough data to understand how to place and advertise our product. In my opinion absolutely legitimate because the consumer is profiting and no one else.

5. What do you think makes your food industry interesting for Neuromarketing? What challenges does it provide?

Neuromarketing is so interesting in our segment due to its emotionally charged segment. It provides a challenge specially to identify the emotions and trying to understand why they are charged and react to certain stimulus.

6. According to your own opinion, what factors play an important role for the food industry when it comes to neuromarketing?

Food industry is such a well-chosen segment to implement neuroscience because the consumer does not know why certain things trigger him and sometimes wants to be oblivious about it where in fact as a marketing manager you need to know as much as you can about your consumer.

7. Would you consider your store as part of an industry that clearly and effectively uses legitimate measures to market their products? Have you ever been in a situation where you felt this being violated?

No, I never found it in any way violating against rules of legitimation in my opinion. We effectively use these measures and I am very happy that neuromarketing exists because otherwise I would not be able to have a touchpoint of the consumers emotionally based decision making system.

8. Do you think neuromarketing supports your marketing goal in your store for this year?

Yes, it definitely is a good add on. But we need the extra analysis of the target group.

9. How can having brain detectors and a lot of different neuromethods help to be better than your competitors?

There is an advantage just because of the additional information you receive.

10. Do you think it could substantially increase sales?

I think it is a great add on but not alone it would increase sales.

Interview with Susanne Jansen (Consultant) 1.December at 17:30 am

1. What are the different marketing strategies that you implement?

First of all, the tool that I use is the reward system. How do consumers perceive brands? Every brand has created its own brand universe, and everyone has viewed the system in their head according to the same scheme. There are different types for example disciplinary autonomy, the limbic types. Everything goes back to Kahnemann and the system 1 and 2 of the reward system is something we evaluate when talking about the systems.

2. What is the role of neuromarketing in these strategies?

The role of neuromarketing is finding the reward system of the consumer. The implicit market research. We use response time measurement. There are explicit parts. But when it comes to attitudes, motivation and emotions we use the implicit methods. Brand tracking, category methods. With regard to the categories. The reward room is the role of neuromarketing. There are many methods. But this the one that grants information.

3. How did you use your findings?

We use the findings at the end of the day to increase sales. We use it at first to give recommendations in terms of the restructuring of their marketing and their packaging for example.

4. What comes to your mind when you think of Neuromarketing? Do you think its legitimate to use it?

Yes, in any case its ethical and legitimate to use it and the method is just better than the explicit ones because we look into what the consumer really wants. I don't see the ethical problem at all.

5. What do you think makes your food industry interesting for Neuromarketing? What challenges does it provide?

There is the autopilot and pilot in every consumer. The pilot only determines 10 percent and the autopilot is unattended and this creates preferences and motivation. I need to know how System 1 works. And that's why I know how people work. Then you ask and you get the socially acceptable answers. Therefore, especially in the food industry it is vitally important to gain information about the implicit decision making through neuromarketing.

6. According to your own opinion, what factors play an important role for the food industry when it comes to neuromarketing?

What criteria are used to make a decision? You have to have the limbic system in your head in order to know how my consumer decide. I have to understand which reward systems consumer assessment systems are based on. Therefore neuromarketing is so good because it understands the true reward system.

7. Would you consider your store as part of an industry that clearly and effectively uses legitimate measures to market their products? Have you ever been in a situation where you felt this being violated?

It never violated against any rule. I think it just increases awareness for your consumer. I am a huge fan of neuroscience. For example in the car industry there are different reward systems within the same segment cars but hugely different between brand. For example autonomy or excitement. This is how you work as a consumer and for Mercedes it doesn't make sense to drive through the mountains. The codes are reward and therefore intuitively feasible by everyone.

8. Do you think neuromarketing supports your marketing goal in your store for this year?

Market research improves sales. Regardless of neuromarketing and marketing, and you always think about how to drive your consumers. With neuromarketing one understands better what makes him tick. At Beiersdorf it was because of that, but other methods can also be used.

9. How can having brain detectors and a lot of different neuromethods help to be better than your competitors?

Yes, definitely you have an advantage. What criteria are used to make a decision? You have to have the limbic system in your head in order to know how my consumer decides. I have to understand which reward systems consumer assessment systems are based on. There is no such thing as one product that makes everyone happy. That's why you do so many segmentations. You don't look at data and think perfectly. Just that. A multitude of optimal solutions. A human remains a human. There will always be different preferences, which is why it is so important to know your segmentation.

10. Do you think it could substantially increase sales?

Every marketing goal is to increase sales and understand your marketing segment better and better and, in my experience, and opinion it definitely increases sales.

Interview with Thomas Ebenfeld, 3rd of December at 1pm

1. What are the different marketing strategies that you implement?

I come from the psychological perspective and we mostly implemented in depth psychological interviews as a marketing strategy or eye tracking or facial recognition.

2. What is the role of neuromarketing in these strategies?

Eye tracking: Sometimes we use that. Sometimes it's predictable. These reception processes are nice to look at but not always valuable. Facial recognition only works if you make very extreme faces. You have to be very extreme in order for it to make a difference on the sensor. Clusters formed and then drawers. To the whole picture. Emotions as a trend: compassionate. Constantly overcoated and emotionally pornographed. Overemphasis. There is a deep longing for something real in society. In order for neuromarketing to work you need benchmarks. Eye tracking at a large scale with shopping is a good tool. It's not always that easy to read. Measurement under skin conduction resistance, psychophysiological measurement. In bio psychology this is interesting, but you need to be able to read the data correctly.

3. How did you use your findings?

Description, exchange, reconstruction.

4. What comes to your mind when you think of Neuromarketing? Do you think its legitimate to use it?

Limbic system and you have an activation in certain regions. This is a reduction of the soul into emotional spaces. For that a simplification is needed. New and different and exciting. Mental processes are attached to some processes in the body. In order to show the complexity of psychological reality, neural approaches are certainly interesting. There is a stimulation and a feeling of security and security that are tied to the theory of emotions. Normal areas of tension and first of all a bond and feeling held and that goes beyond that and then the autonomy and the will to be free.

Yes it is legitimate, but maybe difficult to have actual results because the moment you use them as a method the wording of it all changes as soon as you interpret the result and maybe attribute a word to an emotion that is not correct and then it changes the results.

5. What do you think makes your food industry interesting for Neuromarketing? What challenges does it provide?

When looking at it from an in depth psychological view, you can see that when looking at the marketing for cheese: Cheese is secure and regressive, maternal and therefore wood and green tones are used. Smoking is sensation seeking and beyond. In the mental, it is always about exploring motivational areas of tension. Chocolate has to be conveyed: Toblerone: painful but ferrero rocher: waffle, more cultured. Once on a very regressive one. It is a deterministic assignment. I find it a little bit overdone.

6. According to your own opinion, what factors play an important role for the food industry when it comes to neuromarketing?

It is difficult to evaluate the type of survey. Implicit measurement methods and people should type 1 and 0. And with certain measurement methods you can then see what is more liked. But for a human there is much more to it: A person has cognitive, motivational, emotional components. Therefore I think the factor that plays an important role is the determination.

7. Do you think neuromarketing supports your marketing goal in your store for this year?

Increase sales: neuro-methods: not necessarily. But not necessarily taking knowledge with you. It also has a plausibility.

8. How can having brain detectors and a lot of different neuromethods help to be better than your competitors?

It comes from a scientific perspective and how to deal with the brain and that is often due to marketing that has the wish to serve as a hierarchical method vs procedure. Neuromarketing sometimes pretends to have a scientific complexity and I do not think you have a direct competitive advantage by only using this method. It has to be put in context. But the combination certainly helps.

9. Would you consider your store as part of an industry that clearly and effectively uses legitimate measures to market their products? Have you ever been in a situation where you felt this being violated?

Yes of course.

10. Do you think it could substantially increase sales?

It certainly can increase sales if used appropriately after and analyzing it perfectly.

Appendix 2: Interview Transcription

Code	Interview Claudia Kleyboldt	Interview Guido Pallini	Anonymous restaurant owner	Anonymous spread company	Anonymous spices company	Anonymous chocolate company	Interview Susanne Jansen	Interview Thomas Ebenfeld
Marketing Strategies	data science, insights and consulting. And now at Rügenwalder Mühle. The marketing strategy I saw in food industry companies was such a wide range and so different according to the products and their target groups.	For the agritourism we used a lot of word of mouth and social media and now increasing visibility on Instagram and for our shop its only Facebook and Instagram where we link our website.	consumer observation and a lot of research over the past decades. Especially consumer analysis through surveys and having an informal chat with them	We are doing Point-of-Purchase (POP) Marketing and Social media Marketing and Direct Selling.	We are doing Social Networks and Paid Media Advertising as well as Direct Email Marketing and POP Marketing.	We are doing Co-Branding, Social Media, POP marketing and Direct Marketing.	First of all, the tool that I use is the reward system. How do consumers perceive brands? Every brand has created its own brand universe, and everyone has viewed the system in their head according to the same scheme.	I come from the psychological perspective and we mostly implemented in depth psychological interviews as a marketing strategy or eye tracking or facial recognition.
Techniques Neuromarketing	We used mostly path analysis and the recording and concrete eye recording.	we managed to detect eye movements to understand what is important for the customer.	using neuroscience as a marketing research tool because it would give me the real insights rather than socially desirable answers in a chat with me that could be a bit biased. We used eye tracking movement.	We used mostly concrete eye recording. The role of Neuromarketing was essential because we managed to understand this industry, how they actually feel about spreads and in turn what can we change to increase our sales.	The role of Neuromarketing was important because we managed to realize in which segment our industry is based and can adjust our marketing accordingly.	Our product is an emotional segment and more of a "treat yourself" product. We are placed in a luxurious area where people make decisions solely based on their emotions. That's why the insights of neuromarketing are so vitally important for us.	The role of neuromarketing is finding the reward system of the consumer. The implicit market research. We use response time measurement.	Facial recognition. Eye tracking at a large scale with shopping is a good tool. It's not always that easy to read. Measurement under skin conduction resistance, psychophysiological measurement. In bio psychology this is interesting, but you need to be able to read the data correctly.
Implicit behavior of the consumer only collected through neuromarketing. To ultimately understand the consumer and increase sales in the end	We use the findings to give recommendations to the food industry because they rely very much on these results because without knowing the implicit reactions through our stimulus response measurement of their consumer's they do not know what actually moves them and makes them interested in certain products.	we decided to leave these in places where the customers would not immediately have their eyes pointed to and leave products that were not so popular on the height of the eyes of the consumer which worked very well	We use the findings to give to understand the implicit decision making processes that we otherwise would have not found.	We found out how consumers view butter, namely they are rational about this decision and they put it mostly in the health segment. They look for healthy comments on the packaging.	We use the findings only to increase sales.	We use the findings at the end of the day to increase sales.	We use the findings at the end of the day to increase sales. We use it at first to give recommendations in terms of the restructuring of their marketing and their packaging for example.	Description, exchange, reconstruction.
It is legitimate because products can be created that are adapted to consumer needs	At the end of the day by using these methods and going deep on the consumer's implicit system we are able to create products that are more wanted by the consumers.	which shows to me that they engaged in their target group and did research and tried to find out with which maybe also seemingly "bad" connotations like a bitter taste they could grab their audience. And therefore, it is definitely legitimate to use and the customer has the feeling of being listened to and in a way appreciated.	I think of products that are actually perfectly suited to the consumer's needs. I dream about a restaurant where everyone is perfectly honest and has dishes and wines that they desire.	We only interviewed people who wanted to help and participate and therefore I think it is legitimate to use it because they wanted to have an improved product as well.	I think it is a great way of understanding your consumer and it is totally legitimate because we inform everyone of everything. And I think it is legitimate.	For us it is an optimal way of thoroughly understanding our consumer because otherwise we really can't collect enough data to understand how to place and advertise our product. In my opinion absolutely legitimate because the consumer is profiting and no one else.	Yes, in any case its ethical and legitimate to use it and the method is just better than the explicit ones because we look into what the consumer really wants. I don't see the ethical problem at all.	Yes it is legitimate, but maybe difficult to have actual results because the moment you use them is a method the wording of it all changes as soon as you interpret the result and maybe attribute a word to a person emotion that is not correct and then it changes the results.
Impulsive food decision making especially in the food industry	I think Neuromarketing is especially interesting in the food industry because it is an industry where people increasingly decide impulsively. And so often people didn't know what actually attracted them to this product and what made them chose it.	You have to know what your customers think about. The sustainability is so important, and it is part of the business. You need a feedback. You have to try and see how to be more sustainable.	The food industry is the one most valuable for neuromarketing because people have to make good decisions and make decisions that automatically affects them because they are literally inserting this decision into their body. This is the one area where food decisions are almost completely made impulsively in my opinion from what I saw and observed through the years.	I think it is interesting for every industry that sells something because of the valuable insights you gain. But for the food industry especially interesting. It provides challenges, especially because you have to have a good researcher as a person that evaluates your data in combination with the consumer. This is the transfer you have to be able to have because the data alone is not helpful.	For us there were so many hidden messages that we were not able to detect before using neuromarketing and I think this is a phenomenon especially important in the food industry because here you deal with products that require a lot of internal behaviors within the consumer that he himself doesn't even know of.	Neuromarketing is so interesting in our segment due to its emotionally charged segment. It provides a challenge specially to identify the emotions and trying to understand why they are charged and react to certain stimulus.	Therefore, especially in the food industry it is vitally important to gain information about the implicit decision making through neuromarketing.	marketing for cheese: Cheese is secure and regressive, maternal and therefore wood and green tones are used. Smoking is sensation seeking and beyond. In the mental, it is always about exploring motivational areas of tension. Chocolate has to be conveyed: Toblerone: painful but feroce rocher: waffle, more cultured. Once on a very regressive one. It is a deterministic assignment. I find it a little bit overdone.
Impulsive short buys in the food sector that is only able to analyze through neuromarketing	The impulsive short buys that happen without the ratio of the consumer. Seeing what are the trigger points of the consumer.	How big are the data sets? What is the economic level of the people they surveyed? The clients they use. The first thing is to validate the clients. How the statistics are made?	What was so interesting for me to see was what actually made the consumer look more to one description on the menu than another wording. We used eye tracking on our menus.	Seeing the consumer as a person who decides according to their implicit system.	The decision making processed, the stimulus that gets triggered by certain packaging, wording or ingredients.	Food industry is such a well-chosen segment to implement neuroscience because the consumer does not know why certain things trigger him and sometimes wants to be oblivious about it where in fact as a marketing manager you need to know as much as you can about your consumer.	You have to have the limbic system in your head in order to know how my consumer decide. I have to understand which reward systems consumer assessment systems are based on. Therefore neuromarketing is so good because it understands the true reward system.	Implicit measurement methods and people should type 1 and 6. And with certain measurement methods you can then see what is more liked. But for a human there is much more to it. A person has cognitive, motivational, emotional components. Therefore I think the factor that plays an important role is the determination.
neuro science data's only valuable with the context of the consumer	But the most important factor was putting it into the context of the consumer. In general because you can have all the eye tracking and brain scanning data that you want if you don't understand your target group, you can't combine these two variables and the data becomes less useful.	And it helped a lot and now we have to focus more on the implementation, but I would like to use these type of tools once every two years and do a broad research to optimize.	I think it definitely supported our goal because due to that we adapted our menu and increased sales and happiness.	The goal was to increase sales and it did. It took a bit of time.	The goal was to increase sales and it did. It took a bit of time.	Yes, it definitely is a good add on. But we need the extra analysis of the target group.	Market research improves sales. Regardless of neuromarketing and marketing, and you always think about how to drive your consumers. With neuromarketing one understands better what makes him tick. At Beierdorf it was because of that, but other	Increase sales: neuro-methods not necessarily. But not necessarily taking knowledge with you. It also has a plausibility.
using neuroscience is a competitive advantage	You have a clear advantage because you have data about their implicit behaviors. But through neuromethods you receive implicit and with secondary data as a combination you get the full picture of the consumer.	Simply because of the accuracy which demonstrates a clear competitive advantage in contrast to the usual methods such as interviews and conduction of surveys.	You have a clear advantage because you can see and develop ideas that are built on the true raw data of the consumer without them even noticing this and knowing what they desire. You are one step ahead of them.	You have an advantage because of the detailed insights that are sometimes unreasonable but broadly happening amongst the target groups.	You have an advantage because of the sum of information that you receive of the consumer's decision done by their internal system.	There is an advantage just because of the additional information you receive.	Yes, definitely you have an advantage.	It comes from a scientific perspective and how to deal with the brain and that is often due to marketing that has the wish to serve as a hierarchical method vs procedure. Neuromarketing sometimes pretends to have a scientific complexity and I do not think you have a direct competitive advantage by only using this method. It has to be put in context. But the combination certainly helps.
Neuroscience = Legitimate	No, I never found myself in a position where I felt that I am violating the legitimation of these methods because in the marketing research method and work itself the consumer is a part of the research. He is seen as a research object which he agrees to be a part of.	Yes definitely.	I never found myself in a situation where this was violated. But I have to say that it is not only about having this data it is also about knowing how to read it and use because otherwise it is useless.	I never found myself in a situation of this being violated and I think we clearly and effectively use legitimate measures.	No, I never found myself in a situation of this being violated and the measures we take are legitimate.	No, I never found it in any way violating against rules of legitimation in my opinion. We effectively use these measures and I am very happy that neuromarketing exists because otherwise I would not be able to have a touchpoint of the consumers emotionally based decision making system.	It never violated against any rule. I think it just increases awareness for your consumer. I am a huge fan of neuroscience.	Yes of course.
increasing sales with a combination of neuroscience and data about the context of the consumer	I think it substantially increases sales. But not by using the mere data but more by having a good agency that combines the context of the consumer and the collected data about their implicit behaviors.	If you manage to choose the right media it does improve our sales. We have seen a little bit of this and we are online and did some campaigns and we got a specialist and the impact on sales and commission and they provided us with already a substantial increase in sales.	In the long run it increases sales, but you have to be a bit patient. By knowing more about the consumer it can only benefit you in the future.	I think it substantially increases sales in our case, but you have to evaluate your data and have a bond to your target group because otherwise it is not that useful.	In our case we need more data about our consumers.	I think it is a great add on but not alone it would increase sales.	Every marketing goal is to increase sales and understand your marketing segment better and better and in my experience and opinion it definitely increases sales.	It certainly can increase sales if used appropriately after and analyzing it perfectly.

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