Articles

Neuromarketing or consumer behavior?

¿Neuromarketing o comportamiento del consumidor?

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REVISTA TECNOLÓGICA
ciencia y educación
Edwards Deming

ISSN: 2600-5867

Edited by: Tecnológico Superior Corporativo Edwards Deming
July - December Vol. 6 - 2 - 2022
https://revista-edwardsdeming.com/index.php/es
e-ISSN: 2576-0971
Received: November 18, 2021
Approved: January 11, 2022
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ABSTRACT

Although neuromarketing has been applied in the world of market research for a relatively short time, it already has a very strong base of followers, but also an equal or greater number of opponents. And this is because this branch of marketing does not yet have a solid theoretical basis or a general consensus in academia and business, since it lends itself to some people and companies claiming to be able to influence the behavior of potential customers from the very basis of the functioning of the nervous system, when in reality all they are doing is applying the traditional techniques of persuasion and suggestion that have always been used, but wrapped in a scientific language.

Keywords: Neuromarketing, consumer behavior, neuroscience, pseudoscience, scientific method.

RESUMEN

A pesar de que el neuromarketing está siendo aplicado en el mundo de la investigación de mercados desde hace relativamente poco tiempo, ya cuenta con una base muy fuerte de adeptos, pero también de una igual o mayor cantidad de contradictores. Y esto se debe a que esta rama del marketing no cuenta todavía con una base teórica sólida ni con un consenso general en la academia y la empresa, ya que se presta para que algunas personas y empresas afirmen poder influir en el comportamiento de los clientes potenciales desde las bases mismas del funcionamiento del sistema nervioso, cuando realmente lo único que hacen es aplicar las tradicionales técnicas de persuasión y sugestión que se han usado desde siempre, pero arropadas con un lenguaje cientificista.

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Palabras clave: Neuromarketing, comportamiento del consumidor, neurociencia, pseudociencia, método científico

INTRODUCTION

Since man began to have relationships with members of groups other than his own, he sought to maximize the benefits of such relationships, whether in the incipient first form of trade that was barter, which was perfected later with the appearance of currency.

This maximization of benefits has been developing in parallel with the development of humanity and its consequent complexity of relationships. In this sense, the utility of the exchange is not only in the usufruct of the good or service exchanged, but also in the behavioral response of the parties involved in the exchange.

Already in the middle of the last century, Sigmund Freud, Abraham Maslow and Fredrick Herzberg pointed out that a person's purchasing decisions are linked to different psychological factors, namely: motivation, perception, learning, beliefs and attitudes.

In his theory of motivation, Freud spoke of the different elements that arouse the consumer's emotions at an unconscious level.

Maslow reminded us that once individuals satisfy their most basic and pressing needs, as we move forward they become desires, that is, the person's satisfaction no longer comes from a physiological response to a satisfied need, but rather from a psychological reward for a fulfilled desire.

Herzberg distinguished dissatisfaction and satisfaction factors within any offer of goods or services, and recommended that the former should be identified in order to avoid or limit them, and that the latter should be enhanced and provided in order to ensure a positive response from the interested party.

In other words, psychological factors, response to stimuli, human behavior, customer behavior, have been the subject of scientific analysis for a long time, to be consolidated as part of the academic world, and subsequently of practical application in the business world, and they are not a new concern, nor a topic that has only recently come to light in the 21st century.

The behavioral reactions and responses in the primitive exchange processes originated ordinary knowledge, i.e. beliefs, opinions or opinions of what we could expect as a response from the counterpart to the stimuli we have generated in them.

The inconsistency of these responses of different individuals to the same stimuli gave way to the need to know the reason for these differences.

Faced with this problem, the use of a method becomes evident, that is, a way of converting ordinary knowledge (doxa) into scientific knowledge (episteme). The scientific method must use instruments and measurements and, starting from a hypothesis, it must be verified or refuted; and, if verified, it must result in a replicable event under the same phenomenological variables.

The problem lies in the fact that, when we talk about the world of hard sciences, there is consensus regarding the method. When the object of study approaches social or human behavior, it seems that dissent is most likely.
The human component, with its infinite number of individualities, due to age, origin, race, beliefs, experiences, education, expectations, etc., complicates the establishment of a single model of reactions to the same stimuli, since each human response will be influenced by all these variables and tends to be subjective and anecdotal according to each context.
In the scientific environment of the human sciences, there are still differences of opinion on the different models that should be applied to avoid the cognitive biases that can result from research in the fields of human behavior.
The neurosciences, scientific disciplines that study the brain, the nervous system and how its parts interact to form cognitive and behavioral processes, are a broad and multidisciplinary field of knowledge: they are based on physiology, anatomy, biochemistry, molecular biology, cell biology, genetics, mathematical modeling and computer systems engineering.
We can say that neuroscience helps psychology, or complements it, if you will, to better understand mental functioning and to find the biological basis for understanding the behavior of individuals, which would be cognitive neuroscience.
For the purpose of this paper, we are specifically interested in this area of neuroscience since cognitive neuroscience focuses on the study of, among other aspects:

1. Learning,
2. Attention,
3. Decision-making,
4. Memory,
5. Excitement;

This is very useful for the area of neuromarketing studies that we are dealing with in this article.
The efforts of the marketing, advertising and sales areas are focused precisely on sending messages, express and tacit, capable of reaching the market segments chosen as a source of potential customers:

1. Learn about the characteristics, uses and attributes of the products, services and brands offered for sale,
2. Maintain attention to the stimuli we emit through our communication tools and channels,
3. Go through a decision process that culminates in the purchase of the good or service we offer,
4. Keep the relevant aspects of our marketing mix in your memory for future reference,
5. They identify emotionally with our offer and consolidate themselves as captive customers.

The idea of studying consumer behavior is to study the individual (or group) as a buyer. Like neuroscience, the study of consumer behavior also has a multidisciplinary perspective: psychology, sociology, ethnography, anthropology and economics are some of the areas of expertise.

The objective of combining these disciplines is to get to know people's habits from a mental, emotional and attitudinal approach, during the purchase process, that is, the actions they go through before, during and after a purchase action.

Consumer behavior has been studied for almost a century, but not all companies have been able to afford to hire psychologists, sociologists and other scholars of human behavior to learn the 'whys' and 'wherefores' of their customers' purchasing decisions.

In more recent times, however, technology has come to the aid of small and medium-sized companies with more limited budgets, which have been able to address the need to know their customer through CRM (Consumer Relationship Management), which are computer systems that use all the data collected during each of the company's interactions with the customer and find patterns in the behavior of buyers.

Big data is the latest bet for companies, regardless of their size, to get closer to customer knowledge and be able to design predictive behavioral models and advanced analytics applications.

Big data consists of handling huge amounts of customer information received by companies, especially from the Internet, social networks and cell phones, in order to extract useful indicators for decision making.

Every activity of the subject is monitored: time spent on each page or application, record of the number and frequency of visits, ratings given by the visitor on the services provided, number of likes, number of shares, GPS positioning and routes, etc. This information arrives in large volumes, at very high speed and from such a variety of sources that traditional databases cannot handle it.

As we have seen, these behavioral studies do not even tangentially touch on the biological process of behavior.

To conclude this section: if studies, research and analysis of consumer behavior do not offer any explanation at the neural level, we cannot speak of neuroscience.

MATERIALS AND METHODS

This paper is a theoretical analysis through the review, analysis and discussion of information on the subject, specifically in the online environment, gathering contributions from different perspectives. It is part of a qualitative approach from the interpretative paradigm.

The information in the public domain on neuromarketing generally lacks the academic solidity necessary to be considered a reliable source, with notable exceptions that we have tried to highlight here.

There are still very few neuromarketing publications with a scientific-technical approach; the vast majority are "sales manuals" containing "tips" or advice for the salesperson, and therefore lack the critical rigor that the study of a discipline demands.

The spirit of this work is to generate a document that constitutes a first basic step to generate a discussion on this topic.

RESULTS

Neuromarketing is a further step in the study of consumer behavior. It shows us what happens inside the brain once the behavior has been initiated. The aim is then to be able to predict, and even influence and modify human behavior and decision-making processes.

To simplify it as much as possible, neuromarketing is based on the theory of the three brains, or triune brain:

- The reptilian brain, or more instinctive and primitive part,
- The limbic brain as an emotional part,
- The cortex brain, which is the most evolved and rational part;

The idea, when we talk about neuromarketing or neuro-sales, is that we must appeal more to the instinctive and emotional parts than to the rational ones in order to persuade customers to make the purchase decision.

Neuromarketing aims to "sell to the mind and not to people," in the words of one of its main proponents in the Spanish-speaking world, Jürgen Klarić.

To achieve this objective, tools are used to measure physiological and neuronal signals such as the activity of certain brain areas, the heart rate or the galvanic response of the skin, for which advanced medical technology devices and instruments are used, such as electroencephalography, electrocardiogram, magnetic resonance, biometry, eye tracking, electrodermal response, among others.

But these techniques have yet to win the favor of most companies, especially the smaller ones, since their application is technically complicated and highly costly; impossible to carry out on their own, forcing them to hire specialized companies for the purpose. What is useful and applicable to a multinational mega company of massive consumption, many times it is not for a small local company.

And, although the usefulness of neuromarketing is not disputed, questions remain:

- Are your findings much more accurate compared to other more traditional methods?
- How can we apply neuromarketing in our company?
- Are they worth the effort and investment?
- Which tools are the most useful?
- If the equipment and personnel necessary to apply neuromarketing are beyond our reach, what consulting firm applies "real" neuromarketing?

In all areas of human endeavor there are "smoke peddlers". Many of them are linked, of course, to the world of marketing and market research.

Neuromanagement is here to stay. Any word to which we add the prefix 'neuro' automatically acquires for many a halo of veracity in its scientific foundation:

neuromanagement, neurosales, neurosciences, neuroarchitecture, neurolinguistic programming, neuroeconomics, neurocommunication...
We are not really facing new scientific areas related to neuroscience, we are simply facing a process of using neuroscience findings for the behavioral analysis and behavior of people and the decision-making process applied to different fields.
Sales coaches, self-help charlatans, success and abundance gurus, are on the crest of the wave thanks to their scientific discourses based on everything "neuro".
The very definition of the triune brain: reptilian, limbic and neocortex, is an arbitrary classification and an obsolete model of brain functioning, not accepted by the contemporary scientific canon. It can be successfully used as a didactic allegory to explain complex functions, but not to explain human behavior from biology: If you start from a wrong premise, the conclusion will also be wrong.
We are, on many occasions, witnessing perfect examples of what pseudoscience is: they do not use the scientific method, but present themselves as such. Unfortunately, pseudoscience and many pseudoscientists enjoy a good reputation, catapulted mainly by strong advertising strategies and anecdotal successes in their respective fields.
Normally, pseudosciences are accompanied by an apparent attachment to the scientific method, but in reality they do not resist a serious methodological analysis; and, what is even more worrying, is that they come to have relevance and prestige within the scientific and academic world itself, which should rather unmask them and make their errors and methodological defects evident.
When neuromarketing is offered as a true scientific study, it still has to circumvent certain scruples and ethical boundaries that some people and companies are not willing to cross, as they see it as an intrusion into people's minds. Let's remember that its aim is not only to analyze, but even to manipulate behavior.
Apart from ethical issues, once a company has decided to hire a neuromarketing consultant, they should manage the quality of the analysis service offered to them, in that sense multiple questions and issues may come to the surface:

- You would need to make sure that the studies are actually conducted by certified neuroscientists.
- An independent neuroscientist should be hired to supervise the work and the results obtained by the contracted company.
- The consultant should have marketing experience as well as scientific competence.
- It should ensure that the company has a track record of successful cases and can prove that its results can go beyond what can be achieved with traditional research methods.
- It would be appropriate that the results of the contracted company's research have been peer-reviewed and published in reputable scientific journals.

Although neural manipulation may scare many, marketing has been using tactics to influence the behavior of its customers since its inception. In fact, at least for the moment

and in the current state of development of these techniques, physically manipulating a person's brain without their consent is impossible. However, other forms of manipulation are more subtle and the advancement of the devices we use on a daily basis may mean that true brain manipulation on a physical level may come sooner than we imagine.

DISCUSSION

Neuromarketing, when offered as a business tool outside the laboratories, rather than an approach to the knowledge of how the brain works, becomes a list of tips for cerebral selling: looking for the emotional elements that move the customer to make the purchase decision; in other words, the same strategies used since man began to exchange food at the foot of his cave, but with a more attractive name.

The romantic image of the successful modern neuroscientist: young man in a tight-fitting suit without a tie contrasts with the elements necessary for the real-life application of neuroscience: cold rooms in a hospital, medical instruments, devices, electrodes, etc.

Its reputation is due to its use of scientific terminology, which gives it a proven, indisputable, verified and irrefutable appearance. Its foundations may appear credible, but its practical application in most cases is done without benefit of inventory.

We consider that the central issue of the topic can be framed in the following reflection: The marketer, who applies marketing techniques in his daily work and, although the demands of his job require him to be prepared in the knowledge of human behavior, cannot be required to have the skills that a neuroscientist has in the understanding of the functioning of neural networks and behavioral biology. Neuroscience is one thing; the practical applications derived from the technological application of neuroscience are quite another.

To make an analogy: a light aircraft pilot for spraying tasks in agribusiness, who knows about flight techniques and the basics of aerodynamics, does not necessarily have to be an aeronautical engineer. That is to say, he may know everything about the operation of the aircraft, but have no idea about issues related to the study, design and manufacture of mechanical devices and equipment capable of lifting in flight, as well as the set of techniques that allow the control of aircraft.

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