

NEUROMARKETING AND BRAND POSITIONING: A DOCUMENTARY ANALYSIS FOR LATIN AMERICA

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Abstract

A documentary review was carried out on the production and publication of research papers related to the study of the variables Neuromarketing and Brand Positioning. The purpose of the bibliometric analysis proposed in this document is to know the main characteristics of the volume of publications registered in the Scopus database during the period 2017-2021, achieving the identification of 44 publications in total. The information provided by the said platform was organized through tables and figures categorizing the information by Year of Publication, Country of Origin, Area of Knowledge and Type of Publication. Once these characteristics were described, the position of different authors regarding the proposed topic was referenced by employing a qualitative analysis. Among the main findings of this research, it is found that Brazil, with 12 publications, was the country with the highest scientific production registered in the name of authors affiliated with institutions of that country. The Knowledge Area that made the greatest contribution to the construction of bibliographic material referring to the study of the application of Neuromarketing strategies for the positioning of a brand was Business, Administration and Accounting with 16 published documents, and the Type of Publication that was most used during the above-mentioned period was the Journal Article, representing 68% of the total scientific production.

Keywords: Neuromarketing, Brand Positioning.

1. Introduction

The concept of marketing has evolved throughout history with the first contributions to its theoretical formation dating back to the 1900s and 1920s. During this period, several authors including Shaw (1916), Weld (1917) and Butler and Swinney (1922) tried to show the set of activities that are carried out within the process of what today is known as Marketing and is considered as part of the economy that connects production with consumption. It is even believed to be how producers market their products (Coca, 2008). Nowadays, Marketing represents one of the most important aspects of the design of strategies developed by the management of organizations, with the firm purpose of preserving and increasing their market share within their field of action. The commercialization of goods and/or services is a reality, thanks to a previous marketing campaign and this has been understood from the strategic function, which seeks to increase competitiveness, and has diversified the applicability of Marketing at different levels of the organization (Figure 1).

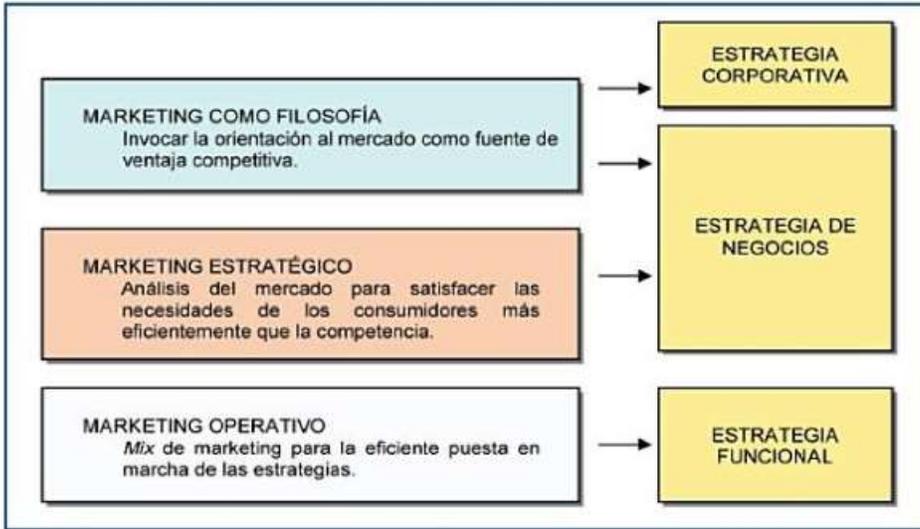


Figure 1. The role of Marketing in the strategy

Source: (Munuera & Rodríguez, 2020)

This is how Marketing today represents the basis for decision-making in every company, to such an extent that they have specialized in different ways of executing strategies, Social Marketing, Experiential Marketing, Ecological Marketing, Neuromarketing, among others. Among these, Neuromarketing covers all marketing strategies based on neurosciences, that is, on the different branches of knowledge that study the brain and its functions, to reveal the decision-making process of the members of their target segments (Urbina, 2020).

Due to its origin, Neuromarketing retains great influence in its theoretical basis, from exact sciences such as mathematics, physics, chemistry and biology, which makes it multidisciplinary support in the integration with other areas such as neurology, psychology, sociology, economics and anthropology which feed a whole universe of possible marketing strategies (Salas, 2018). This branch of Marketing represents a source of safe and reliable results for the target market, it bases its actions on marketing strategies to achieve neurophysiological, psychophysiological and verbal responses as well as to know unconscious cerebral and psychoemotional aspects of customers and consumers that motivate them in the purchase decision, additionally (Urbina, 2020).

This allows companies a successful process of brand positioning, based on the neural stimuli of consumers, and how marketing strategies can influence the purchase of a good or service, as well as their loyalty to it. Therefore, the study of the influence of Neuromarketing represents an important contribution for organizations, since it advances in terms of new and better techniques to approach new customers, which represents one of the main objectives of any company. This article aims to know the current state of scientific publications in this area by carrying out a bibliometric analysis of the same through data provided by Scopus, seeking to answer the question: How has been the production and publication of research papers on the study of Neuromarketing and its influence on Brand Positioning in Latin America during the period 2017-2021?

2. General Objective

To analyze from a bibliometric and bibliographic perspective, the production of high-impact research papers

on the variable Neuromarketing and Brand Positioning derived from publications made by Latin American institutions during the period 2017-2021.

3. Methodology

Quantitative analysis of the information provided by Scopus is performed under a bibliometric approach to the scientific production related to the study of Neuromarketing and Brand Positioning. Also, from a qualitative perspective, examples of some research papers published in the area of the study mentioned above are analyzed from a bibliographic approach to describe the position of different authors on the proposed topic.

The search is carried out through the tool provided by Scopus and the parameters referenced in Figure 2 are established.



Figure 2. Methodological design

Source: Own elaboration

3.1.1 Phase 1: Data collection

The data collection was carried out from the Scopus web page search tool, through which a total of 38 publications were identified. For this purpose, search filters were established consisting of:

- ✓ Published papers whose study variables are related to the study of Neuromarketing and Brand Positioning.
- ✓ Limited to Latin American countries.
- ✓ Without distinction of area of knowledge.
- ✓ Without distinction of type of publication.

3.1.2 Phase 2: Construction of analysis material

The information identified in the previous phase is organized. The classification will be done employing graphs, figures and tables based on data provided by Scopus.

- ✓ Co-occurrence of words.
- ✓ Year of publication
- ✓ Country of origin of the publication.
- ✓ Area of knowledge.
- ✓ Type of publication

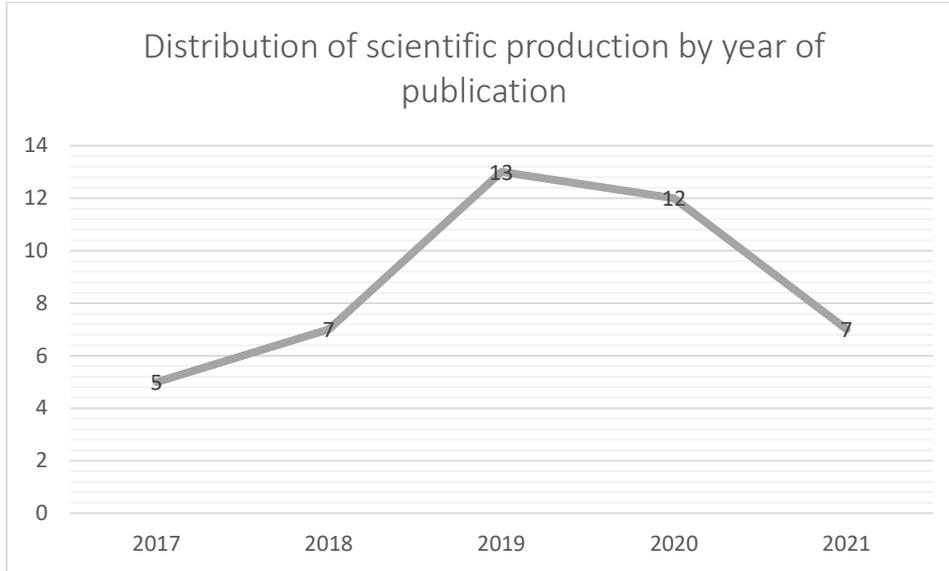


Figure 4. Distribution of scientific production by year of publication.

Source: Own elaboration (2022); based on data provided by Scopus.

During the years 2019 and 2020, the highest number of publications in high-impact journals indexed in the Scopus database was recorded, 13 and 12 researches respectively reported on this platform. On the other hand, 2017 was the year in which the least number of publications were registered on this platform. One of the research papers published and which is considered of great impact and contribution to the study of the influence of Neuromarketing on brand positioning is entitled “Can brain waves tell if a product will be purchased? Inferring consumer preferences from single-item brain potentials” (Goto *et al.*, 2019), whose purpose was to examine single-item event-related brain potentials that could reliably predict consumer preferences for specific consumer goods.

The study analyzed the brain-behavior of 40 participants, whose brain wave behavior during the transmission of different images of consumer goods was measured using specialized tools. The study showed that through this analysis it is possible to achieve an accuracy of up to 71% in the prediction of purchase of an article since the measurement of brain behavior was able to identify the affinity in the same six items in the 40 participants, as well as disinterest in 6 other items, which allowed inferring that it is possible to use marketing tools through neuroscience, to make a product or service more appealing and thus ensure the purchase by consumers. In this way, the usefulness of this science in the process of designing marketing strategies to increase brand positioning is confirmed.

4.3 Distribution of scientific production by country of origin

Figure 5 shows the distribution of scientific production according to the country of origin of the publication.

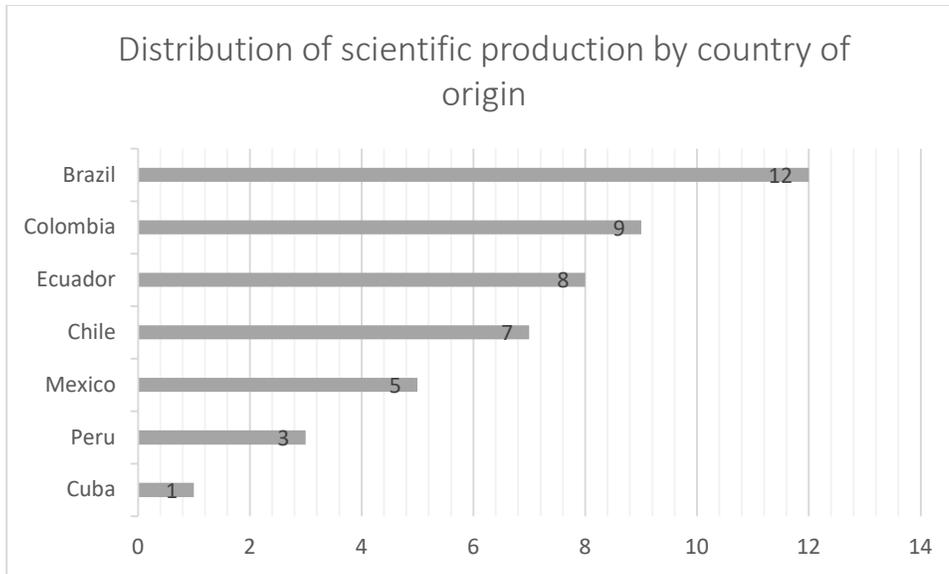


Figure 5. Distribution of scientific production by country of origin.

Source: Own elaboration (2022); based on data provided by Scopus.

Within the Latin American community, Brazil was the country with the highest number of published reports through authors affiliated to institutions in that country. A total of 12 documents were registered in Scopus during the period 2017-2021, within which the article entitled “Consumer neuroscience and neuromarketing: Potential for theoretical adoption with the application of methods and techniques in neuroscience” (Shigaki *et al.*, 2017), whose objective was to present a discussion on the concepts, opinions of various authors on issues, methods and techniques of Consumer Neuroscience and Neuromarketing adopted in the face of stimuli produced by the offer of products, services and marketing communications. Among the main findings of the research, the authors highlight positive and negative points. Among the former, it was possible to determine the support to consumer decision making, cost-benefit of the physiological response methods, the possibility of new research findings and interdisciplinarity and, on the other hand, negative aspects such as the reduced vision of consumer behavior research on stimuli and responses, ethics, high cost of equipment for physiological response methods, lack of skill of researchers in handling the equipment, and inaccuracy of the equipment. At this point, it should be noted that the production of scientific publications, when classified by country of origin, presents a special characteristic and that is the collaboration between authors with different affiliations to public and private institutions, and these institutions can be from the same country or different nationalities so that the production of an article with co-authorship of different authors from different countries of origin allows each of the countries to add up as a unit in the general publications. This is best explained in Figure 6, which shows the flow of collaborative work from different countries.

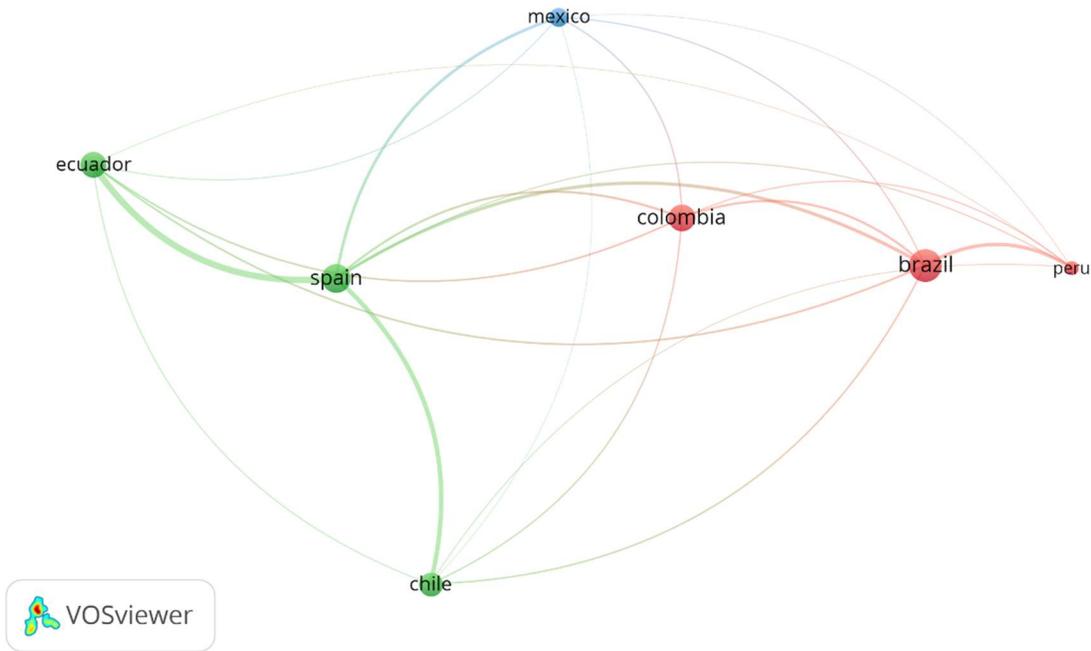


Figure 6. Co-citations between countries.

Source: Own elaboration (2022); based on data provided by Scopus.

Frequent participation is observed among authors affiliated with institutions in Brazil, Colombia and Peru, who have also presented research works in co-authorship with researchers from Spain, the latter country being the central axis in the publications of Ecuadorian and Chilean authors. As an example of the above, the conference article entitled “Conceptual and exploratory approach to the role of trust for efficient advertising: a neuromarketing perspective” (Tinoco-Egas *et al.*, 2019) was identified, which has the participation of authors from Ecuador and Spain whose objective was to explain the concept of the role of the message of an advertisement to generate trust seeking the effectiveness of advertising towards consumer behavior from a neuromarketing perspective.

4.4 Distribution of scientific production by area of knowledge

Figure 7 shows how the production of scientific publications is distributed according to the area of knowledge through which the different research methodologies are executed.

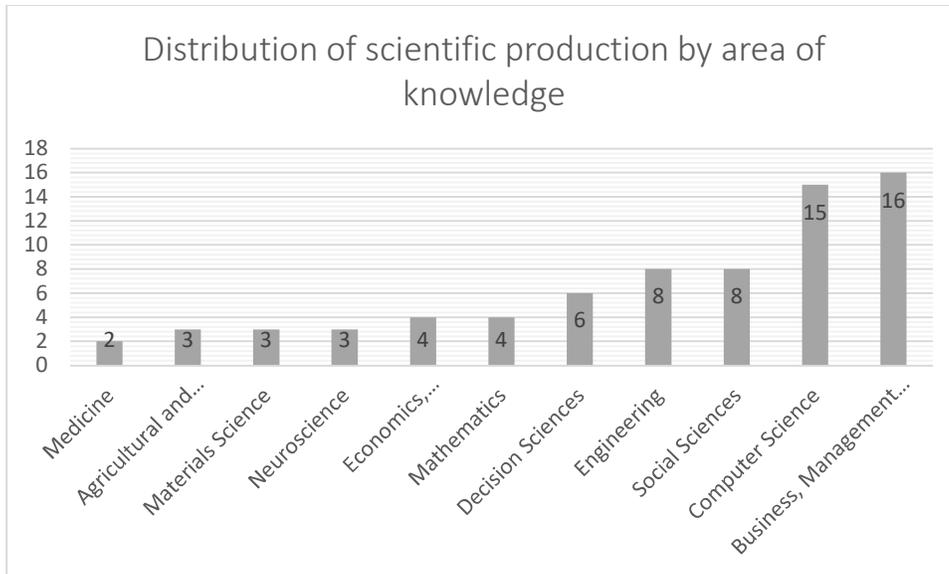


Figure 7. Distribution of scientific production by area of knowledge.

Source: Own elaboration (2022); based on data provided by Scopus.

Business, Administration and Accounting represent the area of knowledge with the greatest influence in the execution of different methodologies for the development of research works related to the study of Neuromarketing and Brand Positioning, a total of 16 publications were executed following theories immersed in this area. In the second place, Computer Science, with 15 publications, explains the nature of the study and the technological component that allows the development of study strategies based on Neuroscience. Decision Sciences, occupies the fifth place with the publication of 6 documents that are developed based on theories derived from this area of knowledge, making an important contribution to the generation of new knowledge on the topic mentioned above, Within these, the article entitled “Neuromarketing as a strategy of consumer persuasion: Theoretical approach” (Vásquez-Patiño & Rueda-Barrios, 2019) was found, whose objective was to carry out a theoretical analysis of neuromarketing from the systematic review of publications in the Scopus database since 2004 on marketing techniques and neuroscience intervention applied to what has been called neuromarketing. It was possible to identify theories, concepts and techniques that are still in the exploratory and experimental phase, highlighting the affinity of this discipline with the study of the senses of human beings, as the main driver in the incentive to purchase a product or service.

4.5 Type of publication

Figure 8 shows how the bibliographic production is distributed according to the type of publication chosen by the authors.

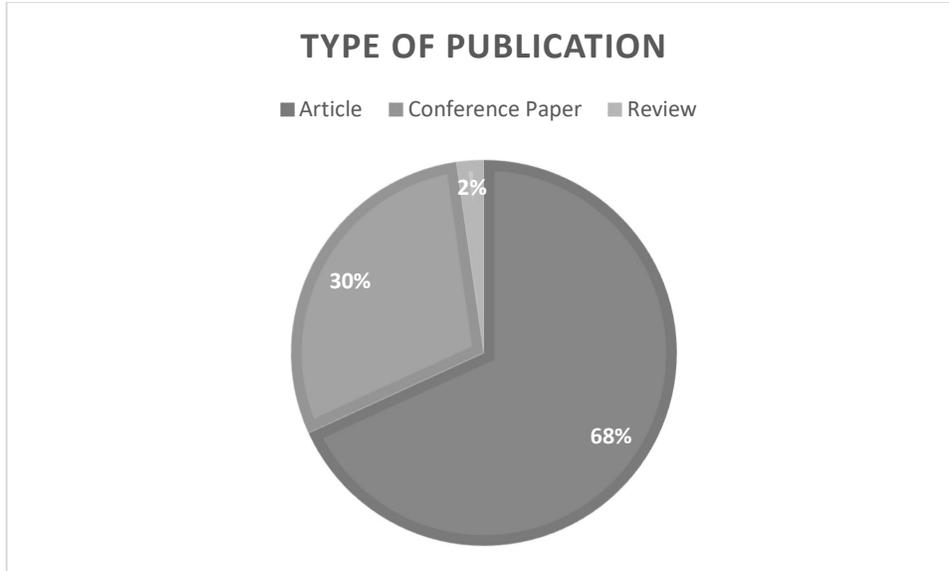


Figure 8. Type of publication

Source: Own elaboration (2022); based on data provided by Scopus.

The Journal Article was the type of publication most frequently used in the research identified through the data collection applied in Scopus, 68% of the publications in total correspond to this typology. In the second place, Conference Articles with 30% and lastly, Reviews with 2%. Among the Conference Articles is the one entitled “The role of neuromarketing emotion as a key to define consumer behavior” (Casas-Frausto *et al.*, 2021), whose purpose was to analyze the role of Neuromarketing within the analysis of consumer emotions to establish related purchase profiles among consumers and thus support marketing campaigns designed by establishing a standard associated with the incentive to purchase through the stimulation of people's sensations. For marketing specialists, this has been a revolution in terms of the establishment of strategies created to ensure the success of advertising campaigns and, therefore, the positioning of the brand.

5. Conclusions

Once the bibliometric analysis proposed for the development of this article was carried out, it was possible to establish that, among the countries belonging to the Latin American community, Brazil was the one that presented the largest number of publications to Scopus during the period 2017-2021, with a total of 12 research papers published in high impact journals indexed in that platform. Thus, it can be inferred that Brazil is part of the group of countries with the greatest progress in terms of the study, design and proposal of theoretical bases for the implementation of strategies based on the application of neuroscience to business marketing, which in turn pursues the generation of a good level of brand positioning.

The above, supported by areas of knowledge such as Administration, Business and Accounting, as well as Computer Science, which were the ones that made the greatest contribution to the generation of new knowledge about Neuromarketing, to such an extent, that it was possible to show that the current state of this discipline still defines experimental phases, with some cases of successful application of marketing strategies based on the stimulation of sensations in humans. This is thanks to the use of new specialized technology that has even made it possible to measure the brain's behavior when faced with the perceived stimulus concerning different

products and/or services, which as a result delivers the affinity or not to these brands.

This information is of great help to companies since, through this data, it is possible to improve or enhance products and/or services according to the needs of consumers, which allows as a result, a higher degree of affinity between the two variables, seeking to increase the possibility of buying them. Therefore, it is important to highlight the importance of studies such as the one presented in this document, since it is possible to know the current state of scientific findings on brand positioning through strategies based on Neuromarketing in Latin America, hoping that, through this, it will be possible to represent a theoretical basis in the generation of new knowledge and thus achieve the design of successful marketing campaigns for the strengthening of companies. It is hoped that research on this subject will be encouraged since the results obtained show that there is a low level of publications related to the study of the aforementioned subject. Likewise, it is of interest for the scientific community to provide concrete results regarding the current debate that exists around Neuromarketing and that questions the ethics in the practices of advertising campaigns based on the contributions that have been made through the study of consumer behavior and decision making.

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