

Consumer Neuroscience and Modern Marketing Research: Present Issues and Future Trends

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Abstract

Over the last couple of decades there has been a growing interest among practicing researchers in exploring the applications of neuroscience across various dimensions influencing consumer decision making and purchase intentions. In this regard it is pertinent to note that neuroscience has proved to be beneficial for marketing research by providing insights aimed towards a more in-depth understanding of consumer behavior which is a very important determinant for marketing success in the modern age. This contribution of neuroscience towards marketing has paved the way for emergence of a new field of study widely referred to as neuromarketing. Being a relatively new and emerging field of study neuromarketing also known as consumer neuroscience is yet not fully understood by many persons and they are relatively unsure of the potential applications and contributions of the same upon present and future marketing practices. This article seeks to introduce the readers to the concept and applications of neuromarketing with a view to explore how it is expected to redefine modern day marketing in the days to come.

Keywords: *Consumer; Neuroscience; Marketing; Neuromarketing; Consumer Behavior; Decision Making;*

1. Introduction

It is unanimously agreed upon by practicing managers, researchers and firms offering their products and services to the consumer that marketing success in the modern era is very heavily dependent upon a clear and in-depth understanding of consumer behavior in order to ensure that an offering meets the consumer requirements optimally and thereby prove to be instrumental in providing him an experience that could lead to repeat purchase in the future as well. However, this understanding of consumer behavior and applying it for marketing success has been a challenge till-date. Despite large amount of research being conducted in the area over the last

few decades a comprehensive understanding of how a consumer behaves and why he behaves so in context of a given situation which is very different for another situation continues to remain elusive.

Despite best efforts to design and offer products and services driven through an understanding of consumers' needs and desires marketing success remains moderate and in many cases new products fail to grab the attention of consumers to the anticipated extent. Among the various reasons that are responsible for this limited and incomplete understanding of consumer behavior and subsequent modest marketing success the most prominent one is that the underlying dynamics between actual purchase behavior of a consumer and his attitude towards purchase is not amenable towards clear identification and analysis through conventional market research methods most commonly relied upon in marketing research.

Modern day research studies have proved conclusively that information to the tune of 90% and above are processed subconsciously by the average human brain [1] and consumer decision making is significantly impacted by the same. Lack of attention towards the subconscious processes within the brain and their subsequent impacts upon purchase decisions leads to a state of confusion among conventional marketing research practitioners who are perplexed by the observed mismatch between their findings based on attitude measurement and the actual displayed behaviour at the point of purchase by a consumer. Given the present situation it is important that the present marketing research practices be reviewed in light of the significant impacts of subconscious processes on consumer buying decisions as evidenced by a large number of studies in the recent past. The subsequent sections of the paper are devoted towards an understanding of the factors that led to the emergence of neuromarketing and consumer neuroscience, an overview of the applications of the same with a discussion on the likely future trends followed by concluding remarks.

2. Neuromarketing and neuroscience: the context and necessitating factors of emergence

In an era where competition is at an all time high with survival of the fittest being the mantra of success, firms offering products and services to the consumers need to continually innovate and ensure that they meet the needs and desires of their targeted consumers better than their rivals do. In this given scenario it is quite natural that the thrust area of firms has been on efforts aimed towards greater and clearer understanding of the cognition and behavior dynamics among consumers that influence their purchase intentions and decisions. Neuroscience which essentially deals with the nervous system of the human body has in the recent times proved to be very insightful in terms of facilitating understanding of consumer behavior in line with the subconscious processing of information by the human brain [2]. The present day research environment has witnessed collaboration among social scientists and their biological and behavioral counterparts joining hands to understand the implications of neurosciences upon consumer behavior and how it influences a consumers' subconscious information processing and subsequently his purchase decisions. Neurosciences focusing upon human decision making have been extremely valuable in developing relevant theoretical insights which facilitate clear understanding of the underlying dynamics that influence consumer decision making [3]. Consumer neuroscience which is a rapidly emerging and highly interdisciplinary field of study draws on concepts from across various disciplines such as psychology, social and behavioral sciences and economics to name a few, has in the recent times played a very important role in examining the dynamics of the influence of advertising and marketing strategies upon the subconscious processing that goes on in the human brain [4].

Despite being used interchangeably in literature the two terms consumer neuroscience and neuromarketing differ from each other in the context that the focus of neuromarketing is majorly upon the concepts that are widely used for conducting marketing research on a commercial basis which takes into consideration a wide variety of neurophysiological tools while consumer neuroscience has a more academic orientation which is concerned with research involving the collaboration of varied disciplines such as neuroscience, psychology and marketing. From a researcher's perspective consumer neuroscience is more rigorous with its findings being embedded in theory more solidly as compared to neuromarketing.

The value of neuromarketing and consumer neuroscience towards marketing lies in its ability to reveal reality better as compared to traditional approaches which rely most heavily upon

administering questionnaires, conducting personal interviews and focus group discussions and other methods [5]. Further, information related to consumer tastes and preferences which are not conducive to be obtained via conventional methods are capable of being obtained through the use of consumer neuroscience and neuromarketing. Accuracy in predictions of choices in the dynamic and ever changing real world context through the judicious use of neuroscience approaches has in today's times brought about a paradigm shift in how marketing research is conducted with significant implications for marketers [6]. Application of specialized neuroscience tools leads to a more thorough understanding of the consumers' intentions towards the offered products and services which in turn facilitates a much needed test of the marketing strategies prior to their actual implementation for the respective target groups. This significantly reduces the possibility of failure and saves costs for a given firm in question. It can therefore be reasonably inferred that in the times to come neuroscience is expected to play a very important role in shaping up the way marketing research is carried out through its contributions in terms of facilitating theoretical development of consumer decision making, accounting for the discrepancies in choices across and within consumer groups, exploring the influence of biological factors on consumers' tastes, preferences and choices and so on.

Through the last decade or so consumer neuroscience has been instrumental in facilitating the development and implementation of valuable and new insights across various aspects concerned with the marketing of products and services such as brand perception [7], brand relationship [8], pricing [9], new product development [10] and many others. The wide array of neuroscience tools which are available for the purpose of carrying out thorough and rigorous investigations in the fields of marketing research ensure that the accuracy of results are more and subsequently decision making at the managerial level is favorably influenced. Neuroscience tools work through an examination of the neurons in the human brain with respect to the need based attention upon the other physiological activities in the human body [11]. Details of neuroscience tools and applications have been explored in the recent past by various researchers [12,13]. This article within its current limited scope is not looking into the same in detail.

3. Consumer neuroscience and neuromarketing: the way ahead

Despite a lot of research being already done on factors influencing human decision making, the level of knowledge in the specific area of brain operation, processing of information and its subsequent impact upon decision making is still relatively less. This acts as a barrier in demystifying consumer behavior in context of marketing research to the maximum extent

that is potentially possible. The currently employed techniques such as (EEG, MEG etc) are making a valuable contribution towards enhancing the effectiveness of marketing research but it should also be clearly understood that they have their inherent limitations as well in context of capturing the brain's nuances of operations at the individual neuron level and thereby more advanced investigation tools and methods are needed to address the existing methodological gaps in present day consumer neuroscience research. It is expected that with more research in the area of enhancing the understanding of the working and nuances of human brain fundamental neuroscience will evolve further and subsequently in the days to come the utility and relevance of neuromarketing and consumer neuroscience is likely to become more pronounced in effective handling of research questions concerned with marketing science and consumer behavior. Further, consumer neuroscience is also expected to urge a critical re-examination of theories established earlier to address their short-comings and thereby enhance the efficiency of marketing professionals further.

4. Conclusion

It can be said that neuroscience over the last decade and a half has been quite successful in arousing interest among practicing researchers which is evident through the emergence of neuromarketing and consumer neuroscience as noted scientific disciplines in the field of modern day marketing research. The increasing acceptance of the field is endorsed through the increasing number of articles appearing in renowned and reputed international journals over the last decade. The contribution of neuroscience towards main stream marketing literature has already begun and the trend is very likely to continue further. It is anticipated that in the near future consumer neuroscience will establish itself as a potent market research method which could enrich marketing discipline by facilitating the development of new theories based upon a wide array of evidences going beyond the conventional survey and interview data. This in the longer run will be instrumental in enhancing the clear understanding of nuances of consumer behavior and decision making.

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