Neuromarketing: A Review of Research and Implications for Marketing

Mehrbakhsh Nilashi a,*, Sarminah Samad b, Neda Ahmadi c, Ali Ahani d, Rabab Ali Abumalloh e, Shahla Asadi f, Rusli Abdullah f, Othman Ibrahim g, Elaheh Yadegaridehkordi h

a School of Computing, Faculty of Engineering, Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Johor, Malaysia
b Department of Business Administration, Collage of Business and Administration, Princess Nourah bint Abdulrahman University, Riyadh, Saudi Arabia
c Shahid Chamran University of Ahvaz, Faculty of Engineering, Department of Computer Engineering, Ahvaz, Iran
d Department of Business Strategy and Innovation, Griffith Business School, Griffith University, Brisbane, Australia
e Computer Department, Community College, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia
f Department of Software Engineering & Information System, Faculty of Computer Science & Information Technology, University Putra Malaysia, Selangor 43400, Malaysia
g Azman Hashim International Business School, Universiti Teknologi Malaysia (UTM), Skudai, Johor 81310, Malaysia
h Department of Information Systems, Faculty of Computer Science & Information Technology, University of Malaya, 50603 Kuala Lumpur, Malaysia

* Corresponding author email address: nilashidotnet@hotmail.com

Abstract

In this research, we reviewed previous studies which adopted neuromarketing techniques in various fields of research. The results revealed that most of the studies in neuromarketing have focused on business applications. This research provides important results on the use of neuromarketing techniques, their limitations and implications for marketing research. We hope that this research will provide useful information about the neuromarketing techniques, their applications and help the researchers in conducting the research on neuromarketing with insight into the state-of-the-art of development methods.

Keywords: Neuromarketing, Literature Survey, Decision-making sciences, Consumer behavior

1. Introduction

The Consumer neuroscience is a newly developed burgeoning area consisting of academic studies at the intersection of marketing, neuroscience, economics, decision theory, and psychology (Morin, 2011). As an interdisciplinary and broad field of research, neuromarketing is defined as a tool which combines neuroscience and physiological techniques in order to get insights in customer behaviour for effective prediction of customer preferences in decision-making process (Yoon et al., 2006). Neuroscience can be used in marketing and consumer behavior research to refine existing marketing theories (Kenning & Linzmajer, 2011; Plassmann et al., 2015). Neuromarketing is one of the new fields of marketing that uses brain-imaging techniques to study brain responses to marketing stimuli. Researchers employ brain imaging to reveal why and how customers respond to triggers and what parts of their brains stimulate them to take an action. According to Chavaglia et al. (2011), neuromarketing is explained by the union of neuroscience and marketing to find how the consumer really makes his online buying decision.

Several studies have been conducted for neuromarketing in various fields (Nilashi et al., 2020). The introduction of these studies according to the applied context and their outputs can provide researchers in neuroscience with insights into the state-of-the-art of development methods. Additionally, a comprehensive research should be conducted to demonstrate the usefulness of neuromarketing in conceptualizing consumer behavior and decision-making process. Compared to other domains, the application of neuromarketing technique is less matured and needs more investigation. Accordingly, this paper is trying to elaborate the importance and contributions of neuromarketing in various fields, especially in business context. We hope that this research will provide readers with an in-depth knowledge about the neuromarketing and its application in business research.

The rest of the paper is organised as follows. In Section 2, neuromarketing in customer decision-making is discussed. In Section 3, we provide an overview of previous research