

A STUDY OF BANKING MARKETERS' PERCEPTION REGARDING THE USE OF NEUROMARKETING TECHNIQUES IN BANKING SERVICES

Monica ȚICHINDELEAN (BECA)¹ ORCID: 0000-0002-8743-4690

Mihai ȚICHINDELEAN² ORCID: 0000-0003-4888-4776

Abstract: *In a context where consumers' satisfaction is a critical desideratum for any service business to thrive, traditional consumer research methods prove to be limited in decoding the consumers' minds. Neuromarketing, as a research method, together with traditional marketing research techniques create a synergy in increasing the quality of communication strategies in services fields such as banking, and not only. The first part of the present paper seeks to present an overview of traditional and neuromarketing techniques available, the second part encompassing the results of a study (survey) regarding banking marketers' perception about the utility of neuromarketing techniques in developing banking communication strategies. The results show that even if only a few of the respondents used neuromarketing techniques before, all the questioned marketers are opened to using it. Also, the consumer dimensions that seem to be in the center of banking marketers' attention are visual attention and consumer emotions, elements that can be successfully studied through neuromarketing.*

Key words: marketing research, neuromarketing, banking services

JEL classification: M31, D87, G21

Introduction

The nature of services makes it vital to offer satisfaction to customers in each point and moment of the service delivery, given that overall satisfaction results from the way each activity is performed and that the consumption of services is done while it is produced, marketers need to fully understand not only consumers' needs, but also perceptions regarding the messages, attitudes and service quality they receive.

Even if traditional research methods allow for consumers' opinion or behavior to be analyzed, this is not enough to unveil the true thoughts of the consumer. This is where neuromarketing as a research method brings added value, by allowing marketers to study elements such as visual attention, cognitive understanding, brain activity or affective response to marketing stimuli.

Within the large family of services, banking services are not easy to understand by all consumers and can be evaluated as highly risky. That is why it is important for banking marketers to fully understand the way their customers internalize the information they receive and, by the use of neuromarketing techniques, identify the ideal way to communicate with their market.

Traditional research methods vs. neuromarketing in service research

Marketing research is defined by AMA (American Marketing Association, 2004) as a function that binds the consumer, the client, and the public to the marketing specialist (marketer)

¹ Corresponding author, 0749214171, monibeca@gmail.com, Bucharest University of Economic Studies, 6, Piata Romană, sector 1, Bucharest

² 0743117119, mihai.tichindelean@ulbsibiu.ro, Lucian Blaga University of Sibiu, 10, Victoriei Boulevard, Sibiu

through information used to identify and define marketing opportunities and problems, respectively to increase the knowledge of the marketing process. Marketing research identifies the information needed to address these issues, sets out methods for collecting information, manages the data collection process, analyzes and communicates their results and implications (definition approved in 2004). A similar definition is given by N. Malhotra (2010) who considers marketing research to be the identification, collection, analyzation and objective dissemination of information necessary to assist organization management in its own decision-making process. In the Marketing Research Treaty, Cătoiu (2009: 18) defines marketing research as "the formal activity through which, with the help of scientific concepts, methods and techniques, the specification, measurement, collection, analysis and interpretation of the marketing data is done in order to drive economic unity, to know the environment in which a firm operates, to identify opportunities, to evaluate alternatives marketing actions and their effects". In conclusion, marketing research is a processual marketing activity that uses scientific methods to attract information from the organization's marketing environment. The attracted, centralized, analyzed and disseminated information is aimed at assisting decision makers in marketing (marketing opportunities and / or threats).

In the field of services, marketing research sets out particular research goals and objectives, different in most cases from products research. Studying customer complaints consists in attracting information about unhappy customers, using this information to solve customer problems, and identifying common elements that cause poor service delivery. Unlike customer complaints for products, in the case of service-related complaints, these must be resolved in real time by eliminating (technical) mistakes and / or increasing the performance of service providers (Zeithaml, 2012). Identifying critical incidents aims at customers expressing their favorable or unfavorable experience following the (last) service delivery of the company. In this regard, each step in providing the service is detailed and critically analyzed; thus, the information attracted can lead to the prevention of mistakes in the provision of services and to the identification of the clients' requirements (expectations) towards the rendered services. This goal can be achieved by applying several research methods, such as: in-depth interviewing, group-focused discussion, qualitative methods (construction techniques).

Relational surveys are a type of survey that study all the dimensions of a customer's relationship with the service provided (price, personnel etc.), usually compared to the services provided by the competition. The purpose of these surveys is to identify the strengths and weaknesses of the company's service relative to the services provided by the competition. Another purpose of service research is to study customer satisfaction immediately after the service has been provided. In this regard, after the service, the customer is asked a series of questions (the survey method) about his satisfaction regarding the last experience with the company's service. The effects of this type of research may be multiple: on one hand, the customer may perceive this survey as a company assurance that the service was properly delivered, increasing his trust and implicitly the attachment to the company, and on the other hand the information attracted is useful to the company in preventing other mistakes in providing the service before they take the form of complaints. Also, the quality of the service can be associated with a company employee, the company's management having the information support to effectively enforce the motivation policy of the employees.

The mysterious client is a form of observation research that aims to attract information about the quality of the service provided by company employees. Trained individuals or research companies play the role of a customer who evaluates the service provided by employees according to clear criteria designed by the company.

Lost customer research seeks to identify why they have renounced to the company's services. The obtained information may indicate the cause of mistakes made in service provision and disposal and thus, eliminating them in the future. It can also determine service attributes provided by competitors for whom customers have migrated or changed their service provider.

The particularities of the marketing research presented above embody elements of consumer behavior, and this comes as a commonsense. Through the mere existence of the triad - provider-service-customer, elements of consumer behavior (along with the provider and service) determine the performance of the provided service. The elements studied are largely endogenous dimensions of consumer behavior, such as: perception, perceived value, perceived quality, perceived satisfaction, motives and motivation, but also elements of manifested behavior, such as post-acquisition behavior or migration behavior.

In their article, D. Nel et al (2011) analyze the scientific articles published in the Journal of Service Marketing during 11 years according to a number of metric criteria (e.g. average citations number / article, h-index, authors number/ article etc.), as well as qualitative criteria such as the surveyed subjects or dimensions. In this respect, 12 categories of researched subjects have been developed, as follows: (1) Customer acquisition, advertising and communication; (2) Customer retention and relational marketing; (3) Internal marketing and support services; (4) Modeling and measurement; (5) Reverse marketing; (6) Creating and delivering the service; (7) Customer experience resulting from service provision; (8) Quality of service and customer relations; (9) Service replenishment recovery; (10) Strategy, Performance and Management; (11) The Influence of Technology; (12) Other.

The analysis of these categories of researched subjects took place over three periods - (I) 1998 - 2000, (II) 2001-2004 and (III) 2005 - 2008. Thus, in relative terms, (8) Quality of service and customer relations held the largest share of total subjects surveyed in the first period (26%), decreasing in the third period to 17%. Also, (1) Customer acquisition, advertising and communication held 21% in the first period, the interest in this topic declining in the third period to only 5%. The highest increase as research interest is for (10) Strategy, performance and management that rose from 4% (in the first period) to 22% in the third period.

In the 2015 special edition of the same journal, entitled *Fresh Thinking in Service Marketing*, A. Gustafsson et al. (2015) included in their article new perspectives of research in the field of service marketing. These perspectives derive from the synthesis of four articles published in the same edition, the first article (McColl - Kennedy, 2015) highlighting (again) the importance of customer experience in the context of services as a research topic. This topic can be addressed in the future, considering the dynamic perspective of the client - company relationship and the following three characteristics:

- a. The increasing role of customer engagement in studying his experience with services
- b. Practical approach to client experience
- c. Recognize the holistic and dynamic nature of customer experience within each contact point with the service organization.

Considering the above-mentioned characteristics, we can see that consumers' experience remains the center of the service marketing process, understanding his needs, thoughts and behavior being vital. Through traditional consumer research dimensions such as expressed perception or actual behavior are being studied, information regarding the internal mechanisms that lead to these perceptions and behavior remaining unknown. For services consumer experiences to be understood and further developed, marketers need to understand why consumers act in the way they do, what triggers their reactions, attachment or disagreement towards the service provider. Neuromarketing research method comes as precious addition to traditional research techniques, together offering marketers a complete tool kit to use in discovering not only the visible behavior but also the unaltered mind and brain reactions of the consumer in relation to a service. Also, under the circumstances of a decreasing interest from researchers in the topic of customer acquisition, advertising and communication research sector, neuromarketing as a research method, allowing new insights in this topic, might contribute to a deeper understanding on how a service provider (and not only) can develop these three valuable components of marketing.

The term “neuromarketing” was firstly used in 2002 by the first neuroscience research company (Levallois et al, 2019) and by prof. Smidts (2002) in his paper “Looking into the brain: On the prospects of neuromarketing” where he describes the term of neuromarketing through the following: “The goal of neuromarketing is to better understand the customer and her response to marketing stimuli, by directly measuring the processes in the brain and involving them in theory development and stimulation development. Although the greatest emphasis is on better understanding of the customer through theory building, it should ultimately also assist the manager in designing more effective marketing incentives. In short, neuromarketing focuses on increasing the effectiveness of marketing activities by studying brain responses.” (Smidts, 2002:29). After that, in 2005 the term "neuromarketing" was added in the Harper Colling dictionary, proving this research method as an existing and useful science (Morin, 2011).

In carrying out neuromarketing research, several instruments and techniques are available for studying either the neural activity of the brain, the electrical activity of the brain or, without looking directly at the brain of the consumer, studying the reactions of the body and mind to certain stimuli. We can therefore name the following most frequently used instruments: Functional Magnetic Resonance Imaging (fMRI); Electroencephalogram (EEG); Eye Tracking; Magnetoencephalogram (MEG); Galvanometer; Facial Coding; Implicit Response Test (Zuravicki,2010; Kenning &Plassmann, 2005; Calvert & Thensen, 2004).

Even if neuromarketing research usually requires technical equipment and knowledge, therefore being harder to understand by a non-specialist, more and more neuromarketing companies that activate on the international market find businesses to be opened and curious about this relatively new research method. Also, on the academic side of the research, there is a noticeable growth of interest in developing the marketing theory of services (and not only) by using neuromarketing techniques.

A series of service-based neuromarketing researches indicate how this method can benefit the field of service marketing.

Schiess et al (2003) used the eye tracker to determine attention differences between men and women while viewing a banking website. Results showed that women are rather text oriented, while men pay more attention to pictures and pictograms and do not spend time reading the text. An interesting finding is that the results recorded by the eye tracker are quite opposite to the results obtained by applying traditional research techniques (survey). YUAN at al (2014) also used the eye tracker, this time in the field of banking services, seeking to determine the degree of banking websites usability. After analyzing the drawn attention to different layouts, colors, amounts and structure of the presented information, they have concluded that the best place in a webpage to place key elements and buttons is the upper left side; also, the ideal structure of a banking website should simple, user-friendly and present a moderate amount of information. Dimpfel & Morys (2014) performed a similar study in the banking field, but in a comparative approach, seeking to determine the layout that allows for the lowest time until subject become aware of the viewed content. In this case, the eye tracking method was combined with electro-oculography and EEG, the last one allowing to study parameters of the brain such as level of concentration, stimulation, memory or activation. F.Munoz-Leiva et all (2019) used the eye tracker to study how visual attention and perception are drawn by advertisement banners for tourism services in different online environments; results indicate Facebook to be the advertising channel that draws the most attention from consumers. The first two authors studied this matter in 2105 as well, when a comparison between potential tourists’ attention to static vs. dynamic ads was also made (Hernández-Méndez & Muñoz-Leiva, 2015).

Falk et al (2016) studied the reaction of smokers to anti-smoking advertisements using the Functional Magnetic Resonance Imaging (fMRI) and compared them with the results of displaying the same campaign to a population level. The study showed that the neural activity in the prefrontal medial cortex of the studied sample may indicate the success rate of a marketing campaign applied

for the whole population. Another example of how the fMRI can reveal interesting information regarding the way the brain processes information is Vezich et al (2016) study, where they compare the self-reported perception versus the recorder brain activity regarding regular products and services advertisements and green, eco-friendly alternative products and services. The results indicate congruence between self –reported perception and recorder activity in the case of regular products and services, but not in the case of the green alternatives, showing that for this last category an imposed desire to embrace eco products might exists, without any real neural foundation.

Hamelina et al (2017) analyzed the long-term effect of safety-driving advertisements on people by studying their facial reaction. Two types of video advertisement were used: low and high emotional advertising; the reaction of the subjects was recorded by facial expression recognition software and then correlated with the results expressed by the subjects in a survey. A two-week later analysis was made, showing that high emotional advertising has a longer lasting effect on safe driving attitude.

Methodology

The present research seeks to identify how neuro-marketing research techniques can help improve marketing communication in banking services. The results of this research will contribute to the application of the neuromarketing research in the banking field, having a real effect in the development of the banking marketing communication. Therefore, the purpose of the research can be defined: to analyze the banking marketers' perception regarding the use of neuromarketing techniques for developing marketing communication strategies.

Derived from the research purpose, the research objectives can be defined:

- Objective 1 – To identify the main communication techniques that banking marketers use as part of the marketing strategy
- Objective 2 – To identify the types of offline and online promotion techniques considered as having a significant impact on attracting customers by banking specialists
- Objective 3 - To determine the extent to which the surveyed banking marketing specialists used neuromarketing research techniques to improve the quality of promotional materials and marketing strategy
- Objective 4 - To identify the research objectives, the used neuromarketing instruments and the way the obtained results were applied in developing marketing communication strategies.
- Objective 5 – To identify consumer dimensions that banking marketing specialists would like to study through neuromarketing techniques in order to improve the communication strategy

The present study is based on primary information, provided free of charge by the respondents by taking part in a survey and completing a questionnaire. The data collection was conducted through direct field research between 16.03.2019 -20.05.2019. Given that this research is exploratory, the size of the sample used was not determined by calculation, thus not being statistically representative

The questionnaire was sent to 650 bank marketing specialists from all over the world. The questionnaire was designed both in Romanian and English on the online Free Online Surveys platform and was distributed via e-mail and LinkedIn online platform. Of the total number of people targeted by the questionnaire, 14 persons (2.15%) completed the questionnaire entirely, these answers being further considered for the text analysis. The 14 respondents work in the banking marketing field in different countries, as it follows: Romania (10 respondents), United States (1 respondent), United Kingdom (1 respondent), Germany (1 respondent) and Morocco, Senegal and Cameroon (1 respondent).

Empirical findings

1. Identifying the main communication techniques that banking marketers use as part of the marketing strategy

In order to fulfill this objective, banking marketing specialists mentioned the most common communication techniques they use as part of the marketing strategy applied in the bank they represent.

Table 1. Frequency of answers regarding used communication techniques in banking marketing (Source: own computation from subjects' answers)

Nb.	Communication technique	Nb. of respondents
1	Social Media posts	7
2	Direct communication	5
3	Online/digital campaigns	5
4	Below the Line (BTL) promotional strategies	5
5	Above the Line (AT) promotion	2

The most frequent response was **social media**, 7 of the 14 respondents claiming platforms such as Facebook, Twitter or Instagram are most often used to communicate effectively with potential customers. These communication channels offer the opportunity to bring information about a technical service, such as banking, in a familiar and informal environment, where the consumer feels comfortable.

The next frequent responses referred to (1) direct communication, (2) online / digital campaigns and (3) Below the Line (BTL) promotional strategies.

- **Direct communication** with potential clients can have a significant impact, the standardized message being therefore personalized by sales agents according to the needs and questions of each consumer.
- Using **online marketing communication** through the bank's website, social networks, online advertising banners or search engine optimization (SEO / SEM) has the advantage of bringing information one click away from the consumer.
- **Below the Line (BTL) strategies** are apparently more often chosen to be suitable for marketing banking products and services compared to Above the Line (ATL) marketing strategies. ATL Marketing Strategies include non-personalized marketing and promotion activities directed at the vast mass of consumers, aiming at informing and promoting the product / service in general. The BTL marketing approach involves personalizing the marketing message according to the target group, the use of direct marketing and less traditional communication channels. Below the Line marketing strategies, more commonly used in banking services, include marketing and direct communication, involvement of banks in projects of social importance (theater, sports, etc.) as sponsors or e-mail marketing, followed by direct contact between sales agents and potential clients. Unlike ATL techniques, BTL techniques take a step further, aiming not to inform but trying to convert the customer into client.

Only two of the respondents argued that **Above the Line (AT) promotion** techniques are the ones they use most often to keep bank customers permanently informed about the available products and services. They most often use Out of Home (OOH) advertising, by placing street billboards and paper or digital displays in consumer areas.

Referring to banking as a high-risk service type, most marketing campaigns will be based on communicating a positive experience and promoting a service system that always keeps the consumer as a central reference point.

2. Identifying the types of offline and online promotion techniques considered as having a significant impact on attracting customers by banking specialists

The next step, after finding out the most frequent communication techniques that banks use as part of their marketing strategy, was to find out the communication techniques that, based on marketers' experience, have the highest impact in attracting customers.

Table 2. Frequency of answers regarding most efficient communication techniques in banking marketing (Source: own computation from subjects' answers)

Nb.	Most efficient communication technique	Nb. of respondents
1	Online campaigns	8
2	TV campaigns	5
3	Social media platforms	4
4	Blog	3
5	Events organizing or sponsoring	3
6	Direct communication	2
7	Billboards and outdoor promotion	2
8	Radio	2

The most frequent responses supported the value of online campaigns by which consumers are redirected to the bank's website, TV campaigns - especially for informing and raising awareness regarding bank's values - and social media platforms that work best in collecting information about consumers. Publishing articles on blogs is also considered a useful alternative.

Events organized or sponsored by the bank, such as sports events, theater, film or music festivals are also activities that have proven to have a significant impact on consumers, whereby banking service providers support the development of shared market values such as culture or sports.

Other communication techniques that are considered effective are direct communication through sales agents or via LinkedIn professional platforms, billboards and outdoor promotion or radio.

While respondents in Romanian banking systems support the efficiency of these communication channels and the need to adapt the strategy to natural or legal customers, differences can be noticed in the response of international representatives. The respondent in charge of a banking marketing strategy based in Morocco, Senegal and Cameroon argues that the use of TV commercials is far too costly and has no proven effect, and votes for communication and promotion of banking services in online and offline environments. The American respondent claims that the distribution of videos on social media platforms and the publication of blog articles as being the most effective way to attract new customers. Of course, given the low number of respondents, these opinions cannot be generalized, but indicate that the effectiveness of each communication and promotion technique will vary according to the consumption behavior of each people.

3. Determining the extent to which the surveyed banking marketing specialists used neuromarketing research techniques to improve the quality of promotional materials and marketing strategy

Of the 14 respondents, only 2 bank marketing specialists have previously used neuromarketing research aiming to obtain information that will enable them to develop the quality of the communication, promotion and marketing strategy of the bank. One of the respondents works in the banking system in Romania, the other representing a bank based in Morocco, Senegal and Cameroon. 4 of the respondents do not know for sure whether the bank they represent has ever used such research techniques.

4. Identifying the research objectives, the used neuromarketing instruments and the way the obtained results were used to improve communication and promotional banking materials

The two respondents who stated that they used neuromarketing as a research method also provided details on the objectives and tools used. Thus, the respondent from Romania used the eye tracker to identify the key items that attract attention in a TV spot presenting banking services. Following the analysis of the heat maps (visual attraction maps), correlated with the perception expressed within a survey and subsequent interviews with the subjects, the bank was able to create an advertising spot whose efficiency in terms of viewing time and the amount of information retained by the viewers has been maximized.

The Moroccan, Senegal and Cameroon bank marketing specialist also used the eye tracker as a neuromarketing instrument, but this time the objective was to analyze consumers' behavior when they enter the bank's office: which is the path the consumers follow and during their stay in the office, where do they look and what draws their attention. Following the analysis of the data obtained through the eye tracker and after discussing with the subjects, the bank managed to improve the looks of the banking agency by placing the information in a creative way in the places that turned out to attract the eye. Also by improving the architecture and environment of the agency the bank managed to offer its clients a pleasant way to spend their time and also obtain a higher degree of information retention from their clients.

5. Identifying consumer dimensions that banking marketing specialists would like to study through neuromarketing techniques in order to improve the communication strategy

Asked about the consumer dimensions they would like to study if they had the opportunity to apply neuromarketing techniques in the banking field, marketing specialists described several items they would like to find out and use to develop their banking communication strategy.

Table 3. Frequency of answers regarding consumer dimensions that banking marketers would like to study through neuromarketing techniques (Source: own computation from subjects' answers)

Nb.	Consumer dimensions to be studied through neuromarketing techniques	Nb. of respondents
1	Visual attention	11
2	Emotions generated by marketing communication	8
3	Consumers' nervousness	2
4	Consumers' trust in the bank	2

Most respondents would like to know what elements draw attention when the consumer accesses the bank's website or looks at any other promotional material; information about where consumers look, for how long or in what order can provide guidance for the improvement of promotional communication. This information that can be obtained by using the eye tracker can then be combined with the interview or survey as traditional research methods in order to correlate the implicit perception (attention) with the expressed perception (memory and reasoning) of the consumer. When referring to the bank's website specifically, one of the respondents would like to know not only what the consumer sees but also why he or she clicks a button or what is expected to find behind a button; this information can lead to the improvement of the user's experience.

The next most frequent answer regarding consumer dimensions that marketers would like to study referred to the emotions that are generated by banking marketing communications. Marketers would like to know what parts of the brain are activated and what causes these emotions to emerge when the consumer receives a marketing message from the bank. This information can be obtained by using the Electroencephalography (EEG) or Functional Magnetic Resonance Imaging (fMRI), techniques that allow the study of the electric and magnetic activity of the brain, each type of

activity corresponding to certain emotions. However, the rationale and reasons behind these emotions can be found or detailed only by finding the expressed perception of the consumer, this being obtained through traditional research methods.

Elements such as consumer's nervousness or trust in the bank that have been mentioned by two of the respondents can be analyzed both by studying the brain areas responsible for these emotions through fMRI, but also by studying the galvanic response of the skin, information that can indicate the chemical modifications of the body while under the influence of a marketing stimulus.

Finally, any additional information that neuromarketing techniques can provide about consumer behavior may be useful to the banking industry, not in a selfish sense, but maximizing banks' chances to meet customer needs at an alert pace and to a greater extent.

Conclusion

Following the analysis of the banking marketing specialists' answers, we can conclude that neuromarketing as a research method can provide valuable information for developing communication quality and the banking marketing strategy, in general by studying the banking services consumer behavior.

Regarding the communication techniques, we noticed that banking marketers use all the available channels, most frequently choosing online communication and Below the Line (BTL) techniques to reach the market. Of these, the most efficient communication and promotion channels have proven to be online, such as the bank's website or social media channels, accompanied by direct communication and involvement of banks in organizing social events.

Although of the 14 respondents only 2 people have so far used neuromarketing research to fine-tune banking communication and promotion (both using the eye tracker as an instrument), all respondents could name aspects regarding the of the behavior of the consumer of banking services thinks they could study them through neuromarketing research. Thus, most respondents expressed interest in studying the consumer's attention when they enter the bank's website or when they interact with promotional material, looking at the consumer for how long and in what order. The next element of interest for the study referred to the emotions of the consumer when he interacts with a marketing stimulus and the reason for the occurrence of these emotions. All aspects of interest shown by respondents on consumer behavior can be studied in detail by applying neuromarketing techniques in combination with traditional research techniques.

As a result of this study, although not statistically representative, we have been able to find out the perception of the banking marketers towards the research of neuromarketing, namely their openness to this relatively new method of research that can successfully contribute to the development of banking marketing, not only for the service providers, but in particular to consumers' qualitative benefit.

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