International Journal of Accounting and Economics Studies, 12 (4) (2025) 45-51

International Journal of Accounting and Economics Studies

Website: www.sciencepubco.com/index.php/IJAES
https://doi.org/10.14419/r77rn022
Research paper



Consumer Emotions and Feel Data in Marketing: A Comprehensive Literature Review

Yahia Mouammine

PhD Scholar, Ibn Tofail University, Kenitra, Morocco.
**Corresponding author E-mail:yahia.mouammine24@gmail.com*

Received: June 19, 2025, Accepted: July 25, 2025, Published: August 2, 2025

Abstract

This paper presents a comprehensive literature review of Feel Data as an emerging concept in marketing, with a particular focus on understanding and quantifying consumer emotions. The study explores definitions of emotions within consumer psychology and details methods currently used to measure emotional responses in marketing contexts, including self-reported surveys, neuromarketing tools, and physiological monitoring techniques. Through a critical examination of these methodologies, the paper highlights both the opportunities Feel Data presents for enhancing emotional insights in marketing and the limitations of current tools. The review also identifies key research gaps, including the need for standardized approaches to Feel Data, ethical considerations in emotional data collection, and the importance of assessing emotion's long-term impact on consumer behavior. These findings suggest pathways for future research and emphasize the potential of Feel Data to deepen marketers' understanding of consumer behavior, ultimately aiding in the creation of more resonant and effective marketing strategies. Furthermore, the paper explores the economic implications of Feel Data, such as its role in optimizing return on investment (ROI), enhancing campaign efficiency, and reducing the cost of failed marketing initiatives.

Keywords: *Feel Data, Consumer emotions, Emotional marketing, Neuromarketing, Consumer behavior*

1. Introduction

In recent years, the study of consumer emotions has gained significant momentum within the field of marketing, as understanding consumer feelings can reveal vital insights into their decision-making processes and behaviors. Emotions drive consumer choices, often operating at a subconscious level, which makes them a crucial aspect of how individuals respond to brands, advertisements, and marketing stimuli. Traditionally, consumer behavior theories focused heavily on rational decision-making models; however, with the rise of consumer psychology and advancements in neuroscience, there is a growing recognition of the need to incorporate emotional data into marketing strategies. Researchers have identified that emotions not only influence but often predetermine the likelihood of a consumer engaging with or remaining loyal to a brand, highlighting the substantial impact emotions have on brand-customer relationships.

This evolving interest in consumer psychology has led to innovative methodologies that capture and analyze emotional data, often referred to as "Feel Data." Feel Data leverages both physiological and neurocognitive tools to provide marketers with a more nuanced understanding of how emotions can be quantified and strategically used to shape consumer experiences. Such approaches have positioned emotional data as a powerful metric, offering insights that transcend the limitations of traditional data collection methods like surveys and focus groups, which may fail to capture genuine emotional reactions.

The objective of this paper is to present a comprehensive literature review on the concept of Feel Data, exploring its foundations in emotional research and its potential applications in the marketing field. Through this exploration, this paper seeks to underscore the importance of Feel Data as an innovative approach that enriches consumer insights and supports the development of emotionally resonant marketing strategies, ultimately enhancing brand engagement and consumer satisfaction.

2. Literature review

2.1 Defining emotions and feel data

In the literature on psychology and neuroscience, there is a consensus on the plurality of definitions of emotion. Indeed, each body of work in neuroscience, psychobiology, and neuropsychology includes a section that provides a summary of emotions. Despite the significant amount of research conducted, there is still no widespread agreement on a unanimous definition of emotions (Celeghin, Diano, Bagnis, and Viola, 2017). In our attempt to formulate a definition of emotion within the context of our research, we identified several definitions of the concept in neuroscientific and psychological literature. According to Hess and Thibault (2009), emotions are regarded as short-term intentional states that induce behavioral, physiological, and cognitive changes from an evolutionary perspective. Griskevicius et al. (2010)

Copyright © Authors. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

consider emotions to be superordinate neural programs that activate a sequence of existing "sub-programs" and coordinate their effects. These programs are thought to exist to facilitate adaptive behavior in response to a paradigmatic and relevant opportunity or threat related to a given physical condition. Ortony (1988) adopted a much simpler definition, describing emotion as a reaction to external stimuli that results in an action (Sharifi, 2014). According to Lee and Hong (2016), emotion refers to a person's affective state, which can be either positive (e.g., love, joy) or negative (e.g., fear, anger, sadness). Kleinginna and Kleinginna (1981) provided a comprehensive and holistic definition after reviewing several definitions in use at the time: (1) an emotion results from a complex series of interactions between subjective and objective components, regulated by brain and hormonal systems. These interactions have the potential to produce affective emotions of excitement, pleasure, and aversion; (2) emotions generate cognitive processes, including perceptual effects related to emotions, appraisals, and categorization processes; (3) emotions induce significant physiological changes in response to stimulating conditions; and finally, (4) emotions lead to actions that are often expressive, goal-oriented, and adaptive, characterizing specific behaviors.

In conducting our literature review, we observed that different terms are used interchangeably, potentially to describe the same concept. For example, the term affect has been used as a generic category to denote all affective states, including emotions, moods, feelings, and emotional qualities (Frijda and Mesquita, 1994), given that the word affect originates from the Latin affectus, meaning "feeling". In this approach, affect is considered more as an umbrella encompassing various emotional states. Affect can take many different forms, one of which is emotions. Distinguishing between feelings and emotions is not difficult. According to Kleinginna and Kleinginna (1981), the expression of an emotion through subjective feelings is one way an emotion can be experienced. Consequently, sensations are simply one component that constitutes an emotion, which is primarily the conscious experience of feeling the emotion (Frijda, 1986). Moods and emotions are affective states, but there are significant conceptual distinctions between them. Emotions are faster reactions, typically lasting minutes rather than hours, while moods persist for a longer period. Making this distinction is crucial to the progress of our research, as in our conceptual framework, we view emotion as data, an integral part of the advertising persuasion process, and a potential factor in triggering purchase intention. It would be advisable to adopt an integrative definition of emotion that encompasses emotion as an independent and basic term, as well as mood states and attitudes. Thus, when we refer to emotions, we mean a mental state of readiness resulting from cognitive evaluations of events or thoughts, which has a phenomenological tone accompanied by physiological processes, is often expressed physically (e.g., in gestures, posture, features), and may lead to specific actions (behavior) to affirm or manage the emotion, depending on its nature and significance to the person experiencing it (Bagozzi, 1999; Brown, 2011; Mazaheri et al., 2012; Poels et al., 2019).

Data is the result of any observation and measurement that can be analyzed, conditioned, and used for various purposes in different formats (Loukides, 2011). Since we can now observe, measure, analyze, and interpret consumer emotions in a marketing context, we believe it is appropriate to consider emotion as a form of data. Thus, we propose to define the concept of Feel Data as a collection of consumer data categorized according to the type of affective reactions, which can be divided into three types:

- **Declarative**: This relies on the oral or written description of what the consumer feels. Due to cost and practicality, questionnaire or interview-based measurement remains the most used method. However, this type of measurement faces several limitations, including social desirability bias and the limited capacity for retrospection and introspection.
- **Physiological**: Here, affective reactions are gathered through direct observation of the consumer's affective responses when exposed to a marketing stimulus.
- **Neurological**: Brain activity is observed in real time using brain imaging technology, allowing for the identification of sequential responses to stimuli.

The automatic and unconscious nature of emotions is particularly important for marketers and within the scope of our research. This characteristic of emotions underscores the limitations of conventional methods (such as questionnaires and focus groups) for collecting and measuring consumer emotions in response to various marketing stimuli. Often, this data arises automatically and unconsciously; to observe and analyze it, we need tools and techniques capable of monitoring individuals' neurological, psychological, and physiological responses, hence the importance of the range of neuroscientific methods that neuromarketing proposes (Mouammine and Azdimousa, 2021). As Ekman and Davidson (1994a) detailed, the sensory processing of stimuli and triggering events, as well as the manifestation of associated responses, does not necessarily rely on the person's conscious awareness of the situation or condition. It is a well-established fact that only a small portion of sensory input contributes to the formation of conscious perceptions. For example, stimuli that we do not fully attend to do not form part of our conscious mind's content (Celeghin, Diano, Bagnis, Viola, et al., 2017; Deak, 2011; Frijda, 1986).

2.2 The role of emotions in marketing

Numerous studies have been conducted on the role emotions play in advertising; however, Binet and Field (2009) The study was one of the largest and most in-depth on the subject. The dataset included information from many advertisements from well-known brands and covered a wide range of issues. A total of 880 "case studies" of advertising campaigns were reportedly submitted to the IPA (Institute of Practitioners in Advertising) in the UK for consideration in the study. Each of these case studies outlined business objectives and measurable outcomes (e.g., sales, market share, price sensitivity, profit). One of the study's goals was to shed light on the role of "emotional" versus "logical" emphasis in advertising about business outcomes. Marketers have gradually embraced the idea of using emotional appeals. However, conventional wisdom held that a "balance" between logical and emotional appeals was necessary for success. According to the study's findings, the importance of an advertising campaign to a company was directly proportional to the extent to which it appealed to consumers' feelings and emotions. Notably, the authors found that advertising efforts with the least rational content were the most successful (the only exception was direct-response advertising, which required some rational appeal to be effective).

Several other researchers have explored consumer emotions and their role in shaping behavior, purchase intentions, satisfaction, brand loyalty, and perceptions of advertising messages. Ruiz and Sicilia (2004)In their study on the influence of cognitive and emotional processing models on consumer responses to advertising appeals, they reported that cognitive and affective processing systems can influence individuals independently and interactively, with marketing effectiveness increasing when people are exposed to advertisements tailored to their unique processing preferences. Yüksel and Yüksel (2007)In their study on emotions and tourist satisfaction, they demonstrated that positive emotions, such as excitement and pleasure, have a beneficial impact on purchase satisfaction and loyalty intentions. Another study in the field of tourism by Del Bosque and Martín (2008) showed that emotion creation is influenced by cognition, while emotional state impacts a person's satisfaction level.

Jang and Namkung (2009), in their assessment of the impact of emotions and perceived quality on consumer behavioral intentions, concluded that product quality negatively influences negative emotions, while service quality positively influences behavioral intentions. Moreover, positive emotions had a major impact on behavioral intentions, whereas negative emotions had only a minor effect. Walsh et al. (2011), in a retail context, found that excitement and pleasure affect both satisfaction and loyalty to the store. Uhrich (2011), to explain the link between shopper emotions (interest, joy, anger, and apprehension) and behavioral intentions, concluded that the type of emotion

experienced by the consumer has a direct causal effect on behavior: positive emotions positively influence behavioral intentions, and negative emotions negatively influence them.

Another interesting study by Suwelack et al. (2011) focused on the mental, emotional, and behavioral effects of money-back guarantees on consumers. It found that consumer reactions to money-back guarantees are often emotional, with these guarantees reducing clients' risk perceptions, strengthening positive feelings, and lessening negative ones, and that consumer appreciation for a product positively affects purchase intention, while feelings of regret do not. Lastly, a study by Kabadayı et Alan (2012) also demonstrated that positive emotions have a beneficial impact on purchase intention.

It has been shown that the greater the intensity of an emotion, the stronger the advertising impact and memory retention that can be achieved (Baraybar-fernández et al., 2017; Hamelin et al., 2017). Thus, knowing certain emotional triggers activated in a consumer allows for easier identification of those that generate a stronger somatic marker, serving as a positive marker for brand positioning and memory. Indeed, those that generate a stronger somatic marker could be recognized as a positive indicator for brand positioning and memory, underscoring the importance of treating emotion as genuine data in a marketing context. Marketers increasingly incorporate emotional experiences into product advertising messages to capture consumer curiosity, evoke positive emotions, and ultimately drive purchase actions (Baraybar-fernández et al., 2017). Consumer emotions rely on an unconscious mechanism that gives a unique meaning to the advertisements they have encountered (Pradeep, 2010).

Similar studies in the field of communication identify emotion as a crucial factor that can significantly influence the persuasive strength of a message (Lee and Hong, 2016). Findings support the theory that decision-making is influenced by emotional signals (or somatic sensations) created in anticipation of future events (Bechara, 2004; Brown, 2011; Naqvi et al., 2006) and that emotions play a vital role in information processing, retention, attention, and the persuasive effectiveness of an advertisement. Recent attention to studying consumer emotions has enabled marketers to predict television ad viewership, assess online consumer expressions, and, in some cases, evaluate and predict purchasing behavior (Naqvi et al., 2006; Y. Wang et al., 2015).

In addition to these behavioral and psychological findings, researchers and practitioners are increasingly examining the economic implications of emotional marketing. Emotion-driven campaigns, particularly those informed by Feel Data, have demonstrated stronger return on investment (ROI) metrics compared to rational or informational campaigns. (He et al., 2022; Jiang et al., 2023). Emotional marketing captures consumers' emotional needs, integrating "emotion" throughout the entire marketing process to resonate with their intrinsic desires (He et al., 2022). Positive emotions like happiness and excitement can foster customer loyalty by enhancing satisfaction and creating strong emotional connections with a brand (Jiang et al., 2023). Conversely, negative emotions can decrease customer satisfaction and increase the likelihood of customers switching brands (Jiang et al., 2023). Organizations are increasingly engaging with consumers at an emotional level, using emotional appeals in advertising to build long-term connections (Gokarna, 2021). This focus on emotions can lead to a greater market share and a competitive advantage (He et al., 2022). Studies emphasize the importance of emotions in marketing (Akgün et al., 2013; Bagozzi et al., 1999), demonstrating that managing consumer feelings can enhance brand trust and loyalty, ultimately impacting ROI (Reeck and Onuklu, 2022).

The studies presented in Table 1 cover a broad spectrum of domains, including retail, tourism, advertising, and technology, showcasing the multidimensional nature of emotional influences. Each study employs distinct methodologies—ranging from experimental designs to observational techniques—highlighting the versatility of emotion research in marketing contexts. For example, Binet and Field (2009) focus on large-scale advertising campaign data to demonstrate the effectiveness of emotional appeals, revealing that campaigns relying on emotional triggers outperform rational ones in generating ROI and brand recall. Yüksel and Yüksel (2007), in the tourism sector, apply psychometric tools to assess the link between perceived risk and emotional satisfaction, offering insights into the role of positive affect in customer loyalty.

In addition, studies such as Suwelack et al. (2011) incorporate experimental manipulations of guarantees to isolate emotional and cognitive responses, while others like Hamelin et al. (2017) use facial expression analysis to objectively capture emotional intensity and its effect on message retention. The methodological diversity in Table 1 reflects a growing interest in both subjective and objective approaches to emotion measurement, ranging from self-reporting to physiological and neurocognitive techniques.

Conflicting findings also emerge. While some studies (e.g., Jang and Namkung, 2009) suggest that positive emotions dominate behavioral intention formation, others (e.g., Ruiz and Sicilia, 2004) argue that cognitive and affective processing co-occur and may vary depending on individual differences, contextual factors, or the type of marketing stimulus. Uhrich (2011), for instance, shows how retail density modulates emotional experiences, implying that environment-specific cues may influence emotional outcomes. These discrepancies emphasize that emotions are not universally predictable and must be interpreted within context-sensitive frameworks. Collectively, these findings reinforce the need for nuanced segmentation, context-aware messaging, and personalization of emotional appeals in marketing strategies to ensure resonance and effectiveness.

2.3 Measurement Techniques for Emotions in Marketing

Through this comprehensive literature review, we found that consumer emotions play an important role in shaping purchasing decisions and preferences among the various products and brands they encounter daily. Human emotions act as behavioral regulators that operate based on the brain's response to various stimuli. Whether in reaction to a perceived threat, a perceived reward, or any other stimulus, an individual's body responds physically and instinctively. Emotional responses are crucial for understanding the processes related to actions, thoughts, and memories of the target group in commercial and academic research on consumer behavior.

2.3.1 Traditional methods

Self-assessment tools such as surveys (questionnaires) and focus groups are examples of traditional measures. In this context, emotions are evaluated by analyzing participants' word choices and the context in which they are used. Traditionally and historically, marketers have relied on self-reports as part of an empirical approach to measure emotional responses (i.e., unipolar or bipolar items on questionnaires) (Bagozzi, 1999; Li et al., 2017). The standard practice is to measure responses to a stimulus with a battery of items covering a wide range of positive and negative emotions. Then, using techniques such as factor analysis, multidimensional scaling, or cluster analysis, researchers can identify the underlying emotional dimensions of their sample. As described earlier, participants in conventional studies report their emotional responses after being exposed to commercial stimuli by rating a series of words, phrases, or statements (Hamelin et al., 2017; Li et al., 2017). The questions and descriptions used in interviews and focus groups focus on whether the emotional experience was more pleasant or unpleasant and to what degree (Bagozzi, 1999; Hamelin et al., 2017; Li et al., 2017, 2018).

Relying solely on these so-called conscious measures of emotions presents a twofold challenge for market researchers. First, the reporting or indication of emotion occurs after the experience and exposure to the stimulus studied. This can introduce certain well-known biases in cognitive psychology and neuroscience, potentially compromising the reliability of the data (Plassmann et al., 2015; Pradeep, 2010a; Vecchiato et al., 2011). Second, emotional processing does not always occur at a conscious level, as suggested by both fundamental emotion models (basic emotions) and psychological construction models. These challenges and limitations faced by traditional methods in measuring Emotional Data, highlighted by numerous researchers (Baraybar-fernández et al., 2017; Heath and Feldwick, 2017; Holbrook and Shaughnessy, 1982; Li et al., 2017, 2018; Ohme et al., 2011; Wiles and Cornwell, 2012), have contributed to the rise of neuromarketing and the adoption of techniques and tools from cognitive psychology and neuroscience. This allows marketers to measure the unconscious levels of Emotional Data, thereby providing new insights into consumer behavior.

Table 1: Summary of selected studies on the role of emotions in marketing

Studies	Research subject	Relevant results
(Binet and Field, 2009)	Analysis of the Best Strategies to Improve Advertising Effectiveness in Terms of Sales, Profit, and Performance	Influencing consumers on an emotional rather than a rational level is among the strategies highlighted by the study.
(Yüksel and Yüksel, 2007)	The impacts of purchase risk perceptions on emotions (pleasure and excitement), satisfaction, and expressed loyalty intentions.	Excitement has a positive effect on purchase satisfaction, pleasure has a positive effect on loyalty intentions, and pleasure positively impacts both.
(Ruiz and Sicilia, 2004)	The impact of cognitive and affective processing styles on consumer response to advertising persuasion.	When people see advertisements that align with how they process information, the ads are more effective. People's cognitive and emotional processing systems can impact them both independently and together.
(Walsh et al., 2011)	Effects of Emotions (Excitement and Pleasure) on Marketing.	Consumers are more satisfied and loyal to a store when they experience positive emotions.
(Del Bosque and Martín, 2008)	The Role of Cognition and Emotions in Tourist Consumer Satisfaction.	The creation of emotions is influenced by cognition, and a consumer's level of satisfaction is influenced by their emotional state.
(Suwelack et al., 2011)	The Cognitive, Affective, and Behavioral Effects of Money-Back Guarantees on Consumers	Consumer reactions to money-back guarantees can be influenced by their emotions. This type of assurance has a cognitive effect by reducing customers' perception of risk, and it also encourages the development of positive emotions while diminishing negative feelings.
(Jang and Namkung, 2009)	The effects of perceived quality and emotions (both positive and negative) on behavioral intentions.	Positive emotion has a significant effect on behavioral intentions, while negative emotion has a negligible effect; product quality negatively impacts negative emotions, while service quality has a positive effect on behavioral intentions.
(Uhrich, 2011)	The link between emotions and consumers' behavioral intentions.	Positive emotions positively and negative emotions negatively influence behavioral intentions.
(Kabadayı and Alan, 2012)	The effects of consumer emotions on their purchase intentions.	Positive emotions and a technology-oriented approach have a beneficial impact on intentions; word-of-mouth also positively influences the association between positive emotions and intention.
(Baraybar-fernández et al., 2017)	Emotional reactions to television ads analyzed through neuromarketing	Consequently, we can deduce that incorporating emotional cues in advertising enhances brand and message recall. Compared to more logical messages, these advertisements have proven to be more effective.
(Hamelin et al., 2017)	Analyzing advertising effectiveness through reactions and facial expressions.	Advertisements that elicit strong emotions have a more lasting impact on consumer attitudes than those that are less emotional; this includes effects on attitudes and attitude changes resulting from exposure to high- or low-emotion ads. Respondents exposed to intense feelings while viewing high-emotion ads reported higher levels of commitment to safe driving (the behavioral measure in this study).
(Lee and Hong, 2016)	The roles of emotional appeal, information, and creativity in advertising effectiveness	The category of goods and products can act as a moderator between emotional appeal and consumer opinion.

2.3.2 Neuromarketing method

To collect and analyze non-conscious responses, numerous companies and academic institutions have developed market-ready tools that utilize algorithms and systems based on artificial intelligence and computer science. These tools enable the collection and analysis of unconscious reactions, with a particular focus on capturing the initial stages of the emotional process (Zaltman, 1997; Zaltman and Kosslyn, 2000). The technologies used (detailed in the first chapter) include biometric tools (such as psychophysiological measures like skin conductance response, heart rate, and respiration), EEG, facial coding, implicit measures, and functional magnetic resonance imaging (fMRI). Each of these instruments provides a non-invasive method for measuring an individual's underlying emotional response, and they are often combined in a single study to give marketers actionable insights into consumer behavior analysis, prediction, and advertising effectiveness. By indirectly measuring brain reactions, biometric tools monitor embodied responses and components of affect by tracking the autonomic nervous system. One of the advantages of biometrics is its ability to record "upstream" emotional reactions, even when these emotional experiences are not consciously perceived. Somatic markers (Damasio, 2001, 2012) play a crucial role in the development of emotional experiences and memories, and biometric assessments are among the best methods for capturing this information. The technology used in biometric approaches is also cost-effective and portable, which is a major advantage. In marketing research, the two most common biometric measures are skin conductance and heart rate (Cartocci et al., 2017).

The electroencephalogram (EEG) is another widely used neuroscientific measure, reflecting direct electrical activity in the neurons of the brain's upper cortex as cells become active (Pradeep, 2010). Although high-quality EEG is somewhat more invasive than biometric measures, it has proven to be one of the best methods for assessing emotional motivation (Costa et al., 2006; Ohme et al., 2011; R. W. Y. Wang et al., 2016; Wiles and Cornwell, 2012).

Facial coding is also another tool for measuring Emotional Data, recording an individual's expressions while viewing a video or image (such as a television ad). This technique is based on the Facial Action Coding System (Ekman and Davidson, 1994, 1994). Implicit tests are another method used to assess semantic associations and emotional reactions that people may hesitate or be unable to express explicitly through verbal methods (Cerf and Garcia-Garcia, 2017; Fugate, 2007). The basic principle of this technique is that any stimulus, such as a

brand or product name, is associated with a multitude of semantic word associations that influence how a person perceives this stimulus. Although fMRI is the most suitable technology in terms of spatial precision for analyzing and measuring emotional processes in the human brain, it remains infrequently used in literature due to cost and logistical limitations.

While neuromarketing tools have opened new frontiers in consumer insight, they are not without limitations. Techniques such as EEG, fMRI, and facial coding, though promising, face questions of reliability and validity across diverse contexts. EEG, for example, is highly sensitive to noise and environmental interference, requiring expert handling to ensure data accuracy. fMRI, though excellent for spatial resolution, is costly, immobile, and impractical for routine marketing applications. Facial coding, while user-friendly and cost-effective, may be prone to cultural bias and limited in detecting subtle emotional nuances. Furthermore, many of these tools still lack standardized validation protocols, which complicates cross-study comparisons and broader generalizations. In addition to technical and methodological limitations, the high cost and scalability challenges restrict widespread adoption, particularly among small and medium-sized enterprises. As such, while neuromarketing methods provide powerful insights into non-conscious processes, marketers must remain cautious in interpreting and applying findings without a robust understanding of each tool's limitations.

A 2024 mixed-method analysis systematically evaluated existing neuromarketing techniques (EEG, fMRI, eye tracking, facial coding) and identified significant validation gaps and practical constraints in their use for market research (Bhardwaj et al, 2024). Meanwhile, an emerging 2025 perspective on AI-powered neuromarketing underscores risks of algorithmic bias and misinterpretation of neural signals, especially in cross-cultural settings (Alsharif et al, 2025).

3. Identified Gaps in Literature

Despite substantial progress in understanding consumer emotions and the emergence of Feel Data as a promising concept in marketing research, several limitations and unexplored areas remain. This section identifies key gaps within the existing literature that highlight opportunities for future research and the refinement of current methodologies.

3.1 Limitations of Traditional Emotional Measurement Techniques

Traditional methods, such as surveys and focus groups, rely on self-reported data, which can introduce biases, including social desirability bias and recall limitations. These methods capture conscious emotional responses but often miss the unconscious reactions that are pivotal to understanding true consumer behavior. Although neuromarketing tools, like EEG and facial coding, address some of these challenges, they are not yet fully reliable or accessible enough for widespread adoption in everyday marketing practices.

3.2 Lack of Standardized Approaches to Feel Data

While the concept of Feel Data presents promising avenues for collecting emotional data, there is no established framework to systematically categorize and analyze Feel Data across different marketing contexts. This lack of standardization makes it difficult to compare studies, validate findings, or apply Feel Data insights consistently in practical settings. More research is needed to develop unified protocols for measuring and utilizing Feel Data effectively in marketing.

3.3 Ethical and Privacy Concerns in Emotional Data Collection

Collecting emotional data, particularly unconscious or physiological responses, raises significant ethical questions regarding consumer consent and privacy (Mouammine and Azdimousa, 2023). Current research lacks a thorough exploration of these ethical dimensions, especially in contexts where consumers may not be fully aware of how their emotional data is being collected or used. Transparency, informed consent, and clear communication about data usage are essential to ensuring that marketing practices remain respectful of individual autonomy. Furthermore, the increasing reliance on AI-driven neuromarketing tools necessitates the development of comprehensive regulatory frameworks. These frameworks should address issues such as biometric surveillance, misuse of emotional profiling, and cross-border data sharing, which are critical as firms expand digital and global marketing strategies. Some countries have already started proposing policies that align with GDPR standards to manage such concerns, but international harmonization is still lacking. Addressing these ethical concerns is essential for building trust and ensuring responsible use of Feel Data in marketing (Damasio, 2007; Javalgi and Toya, 2015; Luna-Nevarez, 2018; Thomas et al., 2016).

A very recent rapid review (2025) highlights seven ethical dimensions in neuromarketing: privacy, autonomy and informed consent, personhood and dignity, risks of 'mind control, vulnerability of certain groups, scientific limitations, and gaps in public policy (Ferrel et al, 2025). This structured analysis reinforces the need for stronger regulatory frameworks to guard against misuse of emotional profiling—especially where AI-driven personalization and unconscious data collection are involved. These concerns echo current discourse in neuroethics literature, calling for dedicated consent protocols and governance mechanisms to protect vulnerable populations and uphold consumer autonomy within emotionally driven marketing practices.

3.4 Gaps in Understanding Emotion's Long-Term Impact on Consumer Behavior

Most studies focus on the immediate effects of emotions, such as their impact on ad recall or purchase intent. However, there is limited research on the sustained influence of emotions on long-term consumer behavior, loyalty, or brand perception. Future research could investigate how Feel Data might be used to assess and strengthen consumer relationships over extended periods.

4. Conclusion

This review underscores the pivotal role of emotions in shaping consumer behavior and illustrates how Feel Data can enhance marketing strategies through a deeper understanding of consumer responses. By examining current methodologies, the study reveals that while significant advances have been made, challenges remain in reliably capturing and applying Feel Data across diverse marketing contexts. Traditional methods are often limited to conscious self-reports, and while neuromarketing techniques offer valuable insights into subconscious reactions, they are not yet accessible or standardized for widespread use.

Additionally, ethical and privacy concerns associated with emotional data collection must be addressed to ensure responsible and transparent use of Feel Data. A standardized framework for measuring Feel Data, along with further exploration of its long-term impact on consumer loyalty and brand relationships, would strengthen its application in market research.

As Feel Data continues to evolve, its potential to enrich consumer insights holds promise for brands aiming to foster genuine, emotion-driven connections with their audiences. This review encourages future research to explore these areas, contributing to an ethical, nuanced, and impactful approach to emotional marketing.

References

[1] Akgün, A. E., Koçoğlu, İ., and İmamoğlu, S. Z. (2013). An emerging consumer experience: Emotional branding. Procedia-Social and Behavioral Sciences, 99, 503-508.

[2] Alsharif, A.H., Wang, J., Isa, S.M. et al. The synergy of neuromarketing and artificial intelligence: A comprehensive literature review in the last decade. Futur Bus J 11, 170 (2025). https://doi.org/10.1186/s43093-025-00591-x

[3] Bagozzi, R.P., Gopinath, M. and Nyer, P.U. The role of emotions in marketing. J. of the Acad. Mark. Sci. 27, 184–206 (1999). https://doi.org/10.1177/0092070399272005

[4] Baraybar-fernández, A., Baños-González, M., Barquero-pérez, Ó., and Goya-esteban, R. (2017). Evaluation of Emotional Responses to Television Advertising through Neuromarketing. 19–28.

[5] Bechara, A. (2004). The role of emotion in decision-making: Evidence from neurological patients with orbitofrontal damage. Brain and Cognition, 55(1), 30–40. https://doi.org/10.1016/j.bandc.2003.04.001

[6] Bhardwaj, S., Thapa, S. B., and Gandhi, A. (2024). Advances in neuromarketing and improved understanding of consumer behaviour: analysing tool possibilities and research trends. Cogent Business and Management, 11(1). https://doi.org/10.1080/23311975.2024.2376773

[7] Binet, L., and Field, P. (2009). Empirical generalizations about advertising campaign success. Journal of Advertising Research, 49(2), 130–133.

[8] Brown, H. (2011). The role of emotion in decision-making. Journal of Adult Protection, 13(4), 194–202. https://doi.org/10.1108/14668201111177932

[9] Cartocci, G., Caratù, M., Modica, E., Maglione, A. G., Rossi, D., Cherubino, P., and Babiloni, F. (2017). Electroencephalographic, Heart Rate , and Galvanic Skin Response Assessment for an Advertising Perception Study : Application to Antismoking Public Service Announcements. August, 1–9. https://doi.org/10.3791/55872

[10] Celeghin, A., Diano, M., Bagnis, A., and Viola, M. (2017). Basic Emotions in Human Neuroscience : Neuroimaging and Beyond. Frontiers in Psychology, 8(August), 1–13. https://doi.org/10.3389/fpsyg.2017.01432

[11] Celeghin, A., Diano, M., Bagnis, A., Viola, M., and Tamietto, M. (2017). Basic Emotions in Human Neuroscience: Neuroimaging and Beyond. Frontiers in Psychology, 8, 1432.

[12] Cerf, M., and Garcia-Garcia, M. (2017). Consumer neuroscience. MIT Press.

[13] Costa, T., Rognoni, E., and Galati, D. (2006). EEG phase synchronization during emotional response to positive and negative film stimuli. 406, 159–164. https://doi.org/10.1016/j.neulet.2006.06.039

[14] Damasio, A. (2001). Emotion and the human brain. Annals of the New York Academy of Sciences, 935, 101–106. https://doi.org/10.1111/j.1749-6632.2001.tb03475.x

[15] Damasio, A. (2007). Neuroscience and Ethics : Intersections. The American Journal of Bioethics, 7(1), 3–7. https://doi.org/10.1080/15265160601063910

[16] Damasio, A. (2012). Emotion and Consciousness. In R. Heath (Ed.), Seducing the subconscious: The psychology of emotional influence in advertising (1st ed.). John Wiley and Sons, Ltd.

[17] Deak, A. (2011). Brain and emotion : Cognitive neuroscience of emotions. 18(2), 71–80.

[18] del Bosque, I. R., and Martín, H. S. (2008). Tourist satisfaction a cognitive-affective model. Annals of Tourism Research, 35(2), 551–573. https://doi.org/https://doi.org/10.1016/j.annals.2008.02.006

[19] Ekman, P., and Davidson, R. J. (1994a). Affective Science: A research agenda. In The Nature of Emotion: Fundamental Questions (pp. 411–431).

[20] Ekman, P., and Davidson, R. J. (1994b). The Nature of Emotion: Fundamental Questions. Oxford University Press, Inc.

[21] Ferrell, M.L., Beatty, A. and Dubljevic, V. The Ethics of Neuromarketing: A Rapid Review. Neuroethics 18, 19 (2025). https://doi.org/10.1007/s12152-025-09591-8

[22] Frijda, N. H. (1986). The emotions. Cambridge University Press.

[23] Frijda, N. H., and Mesquita, B. (1994). The social roles and functions of emotions. In motion and culture: Empirical studies of mutual influence (S. Kitayam, pp. 51–87). American Psychological Association.

[24] Fugate, D. L. (2007). Neuromarketing: A layman's look at neuroscience and its potential application to marketing practice. Journal of Consumer Marketing, 24(7), 385–394. https://doi.org/10.1108/07363760710834807

[25] Gokarna, P. (2021). Study of Customer Engagement through Emotional Branding. Shanlax International Journal of Management, 8(3), 11-20. https://doi.org/10.34293/management.v8i3.3455

[26] Griskevicius, V., Shiota, M. N., and Neufeld, S. L. (2010). Influence of Different Positive Emotions on Persuasion Processing: A Functional Evolutionary Approach. Emotion, 10(2), 190–206. https://doi.org/10.1037/a0018421

[27] Hamelin, N., El, O., and Thaichon, P. (2017). Emotion and advertising e ff ectiveness : A novel facial expression analysis approach. Journal of Retailing and Consumer Services, 36(January), 103–111. https://doi.org/10.1016/j.jretconser.2017.01.001

[28] He, X., Zhu, L., Sun, L., and Yang, L. (2022). The influence of brand marketing on consumers' emotion in mobile social media environment. Frontiers in Psychology, 13, 962224.

[29] Heath, R., and Feldwick, P. (2017). Fifty years using the wrong model of advertising. 50(1), 1–22.

[30] Hess, U., and Thibault, P. (2009). Darwin and Emotion Expression. American Psychologist, 64(2), 120–128. https://doi.org/10.1037/a0013386

[31] Holbrook, M. B., and Shaughnessy, J. O. (1982). The role of emotion in advertising. Psychology and Marketing, 1(2), 45–64.

[32] Jang, S. (Shawn), and Namkung, Y. (2009). Perceived quality, emotions, and behavioral intentions: Application of an extended Mehrabian–Russell model to restaurants. Journal of Business Research, 62(4), 451–460. https://doi.org/https://doi.org/10.1016/j.jbusres.2008.01.038

[33] Javalgi, R. G., and Toya, L. (2015). International Marketing Ethics : A Literature Review and Research Agenda. Journal of Business Ethics. https://doi.org/10.1007/s10551-015-2958-9

[34] Jiang, Y., Sun, Y., and Tu, S. (2023). Economic implications of emotional marketing based on consumer loyalty of mobile phone brands: the sequential mediating roles of brand identity and brand trust . Technological and Economic Development of Economy, 29(4), 1318–1335. https://doi.org/10.3846/tede.2023.19278

[35] Kabadayı, E. T., and Alan, A. K. (2012). Revisit Intention of Consumer Electronics Retailers: Effects of Customers' Emotion, Technology Orientation and WOM Influence. Procedia - Social and Behavioral Sciences, 41, 65–73. https://doi.org/https://doi.org/10.1016/j.sbspro.2012.04.009

[36] Kleinginna, P. R., and Kleinginna, A. M. (1981). A categorized list of emotion definitions, with suggestions for a consensual definition. Motivation and Emotion, 5(4), 345–379. https://doi.org/10.1007/BF00992553

[37] Lee, J., and Hong, I. B. (2016). Predicting positive user responses to social media advertising: The roles of emotional appeal, informativeness, and creativity. International Journal of Information Management, 36(3), 360–373.

[38] Li, S., Walters, G., Packer, J., and Scott, N. (2017). A Comparative Analysis of Self-Report and Psychophysiological Measures of Emotion in the Context of Tourism Advertising. https://doi.org/10.1177/0047287517733555

[39] Li, S., Walters, G., Packer, J., and Scott, N. (2018). Using skin conductance and facial electromyography to measure emotional responses to tourism advertising. Current Issues in Tourism, 21(15), 1761–1783. https://doi.org/10.1080/13683500.2016.1223023
[40] Loukides, M. (2011). What is data science. O'Reilly Media, Inc.
[41] Luna-Nevarez, C. (2018). An Exploratory Analysis of Consumer Opinions, Ethics, and Sentiment of Neuromarketing: An Abstract. In Developments in Marketing Science: Proceedings of the Academy of Marketing Science (pp. 79–80). https://doi.org/10.1007/978-3-319-66023-3_32
[42] Mazaheri, E., Richard, M. O., and Laroche, M. (2012). The role of emotions in online consumer behavior: A comparison of search, experience, and credence services. Journal of Services Marketing, 26(7), 535–550. https://doi.org/10.1108/08876041211266503
[43] Mouammine, Y., and Azdimousa, H. (2021). A review of neuromarketing origins as a new marketing research method. Marketing Science and Inspirations, 16(4), 34–50.
[44] Mouammine, Y., and Azdimousa, H. (2023). An overview of ethical issues in neuromarketing: Discussion and possible solutions. Marketing Science and Inspirations, 18(4), 29–47.
[45] Naqvi, N., Shiv, B., and Bechara, A. (2006). The role of emotion in decision making: A cognitive neuroscience perspective. Current Directions in Psychological Science, 15(5), 260–264. https://doi.org/10.1111/j.1467-8721.2006.00448.x
[46] Ohme, R., Matukin, M., and Pacula-lesniak, B. (2011). Biometric Measures for Interactive Advertising Research. Journal of Interactive Advertising, 11(2), 30–72. https://doi.org/10.1080/15252019.2011.10722185
[47] Ortony, A. (1988). Are emotion metaphors conceptual or lexical? Cognition and Emotion, 2(2), 95–104. https://doi.org/10.1080/02699938808408066
[48] Plassmann, H., Venkatraman, V., Huettel, S., and Yoon, C. (2015). Consumer neuroscience: applications, challenges, and possible solutions. Journal of marketing research, 52(4), 427-435.
[49] Poels, K., Dewitte, S., Poels, K., and Dewitte, S. (2019). The Role of Emotions in Advertising : A Call to Action The Role of Emotions in Advertising : A Call to Action. Journal of Advertising, 0(0), 1–10. https://doi.org/10.1080/00913367.2019.1579688
[50] Pradeep, A. K. (2010a). The Buying Brain: Secrets for selling to the subconscious mind. John Wiley and Sons, Inc.
[51] Pradeep, A. K. (2010b). The Buying Brain: Secrets for selling to the subconscious mind. John Wiley and Sons, Inc.
[52] Reeck, C., and Onuklu, N. N. Y. (2022). Interpersonal emotion regulation: Consequences for brands in customer service interactions. Frontiers in psychology, 13, 872670.
[53] Ruiz, S., and Sicilia, M. (2004). The impact of cognitive and/or affective processing styles on consumer response to advertising appeals. Journal of Business Research, 57(6), 657–664. https://doi.org/https://doi.org/10.1016/S0148-2963(02)00309-0
[54] Sharifi, S. S. (2014). Impacts of the trilogy of emotion on future purchase intentions in products of high involvement under the mediating role of brand awareness. European Business Review, 26(1), 43–63. https://doi.org/10.1108/EBR-12-2012-0072
[55] Suwelack, T., Hogreve, J., and Hoyer, W. D. (2011). Understanding Money-Back Guarantees: Cognitive, Affective, and Behavioral Outcomes. Journal of Retailing, 87(4), 462–478. https://doi.org/https://doi.org/10.1016/j.jretai.2011.09.002
[56] Thomas, A. R., Pop, N. A., Iorga, A. M., and Ducu, C. (2016). Ethics and neuromarketing: Implications for market research and business practice. In Ethics and Neuromarketing: Implications for Market Research and Business Practice. https://doi.org/10.1007/978-3-319-45609-6
[57] Uhrich, S. (2011). Explaining non-linear customer density effects on shoppers' emotions and behavioral intentions in a retail context: The mediating role of perceived control. Journal of Retailing and Consumer Services, 18(5), 405–413. https://doi.org/https://doi.org/10.1016/j.jretconser.2011.06.002
[58] Vecchiato, G., Astolfi, L., De Vico Fallani, F., Toppi, J., Aloise, F., Bez, F., Wei, D., Kong, W., Dai, J., Cincotti, F., Mattia, D., and Babiloni, F. (2011). On the Use of EEG or MEG brain imaging tools in neuromarketing research. Computational Intelligence and Neuroscience, 2011. https://doi.org/10.1155/2011/643489
[59] Walsh, G., Shiu, E., Hassan, L. M., Michaelidou, N., and Beatty, S. E. (2011). Emotions, store-environmental cues, store-choice criteria, and marketing outcomes. Journal of Business Research, 64(7), 737–744. https://doi.org/https://doi.org/10.1016/j.jbusres.2010.07.008
[60] Wang, R. W. Y., Chang, Y., and Chuang, S. (2016). EEG Spectral Dynamics of Video Commercials : Impact of the Narrative on the Branding Product Preference. Nature Publishing Group, October, 1–11. https://doi.org/10.1038/srep36487
[61] Wang, Y., Chattaraman, V., Kim, H., and Member, G. D. (2015). Predicting Purchase Decisions based on Spatio- temporal Functional MRI Features using Machine Learning. 0604(c), 1–10. https://doi.org/10.1109/TAMD.2015.2434733
[62] Wiles, J. A., and Cornwell, T. B. (2012). Current Issues and Research in Advertising A Review of Methods Utilized in Measuring Affect , Feelings , and Emotion in Advertising. December 2014, 37–41. https://doi.org/10.1080/01633392.1991.10504968
[63] Yüksel, A., and Yüksel, F. (2007). Shopping risk perceptions: Effects on tourists' emotions, satisfaction and expressed loyalty intentions. Tourism Management, 28(3), 703–713. https://doi.org/https://doi.org/10.1016/j.tourman.2006.04.025
[64] Zaltman, G. (1997). Rethinking Market Research: Putting People Back In. Journal of Marketing Research, 34(4), 424–437.
[65] Zaltman, G., and Kosslyn, S. M. (2000). Neuroimaging as a marketing tool (Patent No. US006099319A). The United States Patent and Trademark Office (USPTO). https://patents.google.com/patent/US6099319A/en