

Measuring Emotional and Rational Drivers in Retail Customer Journeys Beyond Surveys

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Abstract: This paper argues that customer journey, brand, and innovation-related decisions in retail should not rely only on self-reported data and questionnaire analytics, especially when evaluating the emotional and rational drivers of consumer behaviour. In practice, surveys remain a major source of evidence for assessing communication effectiveness, touchpoint quality, packaging evaluation, and brand performance. However, self-reports often capture declared preferences and post hoc rationalisations rather than the processes that shape attention, arousal, and affect during exposure. As a result, retailers may optimise communication, touchpoints, and product or packaging presentation on incomplete evidence. The paper proposes a dual-layer framework for measuring retail customer journeys that captures both declarative and process-sensitive components of consumer response. The first layer covers explicit evaluations, including attribute importance, trust, preferences, and purchase intentions. The second layer captures implicit signals, including visual attention patterns, physiological arousal, and affective responses during exposure to retail stimuli. The framework integrates both layers across key journey stages and links them to communication design, touchpoint prioritisation, brand consistency management, and the evaluation of retail changes across touchpoints. Methodologically, the paper is conceptual and practice-oriented, supported by a secondary cross-study synthesis of proprietary neurolab studies conducted in a university research setting. The included studies span multiple retail contexts, including advertising, online retail environments, packaging presentation, and product experience. They are not treated as one pooled empirical dataset. Instead, they reveal a recurring managerial risk: decisions based only on questionnaire results would have supported different recommendations than decisions informed by combined explicit and implicit evidence. Across the included studies, the dual-layer approach identifies hidden friction points, underestimated brand effects, failures of perceptual access, and mismatches between declared choice logic and experienced response. The paper contributes a framework for measuring emotional and rational drivers beyond surveys, a perspective on implicit signals as decision-relevant evidence in retail customer journey analysis, and practical guidance for combining declarative and biometric data across touchpoints. It also highlights how such evidence can support the evaluation of retail changes, redesign decisions, and selected innovation-related actions. The paper concludes with implications for practice and directions for further validation.

Keywords: Customer Journey Measurement; Retail Innovation; Brand Management; Implicit Consumer Response; Packaging Innovation; Touchpoint Design

1. Introduction

Retail managers make brand and customer journey decisions across multiple touchpoints, including advertising, online retail environments, packaging, and product experience. Customer journey research shows that customer experience emerges across sequences of interactions, channels, and contexts rather than at a single moment (Lemon and Verhoef, 2016). This creates a core measurement challenge: retail decisions should be guided not only by what consumers say they value, but also by what they actually process and respond to during browsing, comparison, exposure, and choice.

In practice, retail decision-making often relies on questionnaire-based customer feedback and brand health indicators, including widely used metrics such as Net Promoter Score (Baehre et al., 2022). These measures are scalable and easy to track, but they may be insufficient when managerial choices depend on the interplay of rational and emotional drivers, especially in situations involving redesign, validation, or rollout decisions. Verbal reports can reflect declared preferences and post hoc rationalisations rather than direct access to the processes shaping attention and affective response during exposure (Nisbett and Wilson, 1977). This does not invalidate self-reports, but highlights their limits when firms assess whether a communication concept, packaging solution, or product-related change is genuinely working.

Consumer neuroscience and psychophysiology suggest that implicit measures can complement traditional marketing research when interpreted carefully and used in a decision-relevant way (Plassmann et al., 2015). Neurophysiological measures can also add explanatory value beyond standard pretest approaches in forecasting advertising effectiveness (Venkatraman et al., 2015). However, such methods are often applied to isolated stimuli or narrow contexts rather than integrated into a retail customer journey framework that links measurement to touchpoints, managerial action, and the validation of retail innovations.

This paper addresses that gap by advancing a dual-layer measurement approach for retail customer journeys, combining an explicit layer of self-reports, preferences, perceived attribute importance, trust, and intentions

with an implicit layer capturing visual attention, physiological arousal, and expressive affect. It draws on a secondary cross-study synthesis of proprietary, previously unpublished neurolab studies conducted in retail contexts, spanning retail advertising (Retailer A), online retail communication (E-retailer A versus Brand B), packaging and shelf-level presentation (Product C), and product experience in innovation assessment (Product D). Rather than treating these as separate case reports, the analysis identifies recurring mismatches between declared and process-sensitive responses that could lead to different recommendations if managers relied on questionnaires alone. Across cases, these mismatches are relevant to communication redesign, digital touchpoint optimisation, packaging innovation, and product innovation assessment.

The paper contributes at the intersection of retail customer journey management, brand management, and innovation decision-making by offering a transferable conceptual framework for dual-layer measurement across retail touchpoints, a methodologically explicit approach to synthesising heterogeneous lab studies through pattern matching and analytic generalisation, and practical guidance for decisions in which emotional and rational drivers jointly shape behaviour. In this sense, the framework can also be understood as a measurement innovation that supports better validation of retail changes before broader implementation.

To structure the argument, the paper addresses three research questions. RQ1 asks at which retail touchpoints survey-based evidence is most vulnerable to misleading redesign or innovation-related decisions. RQ2 asks what recurring divergences emerge between declarative evaluations and process-sensitive indicators across retail contexts. RQ3 asks how a dual-layer measurement approach can improve validation, trial, and rollout decisions across the retail customer journey.

2. Background

Retail brand management unfolds across sequences of touchpoints rather than isolated moments. Customer experience research frames this explicitly: experience emerges across interactions, channels, and contexts over time, which makes journey thinking a natural lens for retail decision-making (Lemon and Verhoef, 2016). At the same time, the customer experience field has expanded rapidly and become conceptually fragmented, with different traditions emphasising different operationalisations (Becker and Jaakkola, 2020). In practice, firms therefore rely on measurement approaches that are scalable and comparable across units and time, most often questionnaire-based customer feedback metrics and brand health indicators. Net Promoter Score is one prominent example of such a metric and has increasingly been used as a broader brand performance indicator rather than only a transaction-level loyalty measure (Baehre et al., 2022). More broadly, customer feedback metrics are used to monitor firm performance over time (Agag et al., 2023). A similar declarative logic dominates academic customer experience measurement, including survey-based syntheses and scales developed for services, omnichannel environments, and physical retail contexts (Bueno et al., 2019; Gahler et al., 2023; Rahman et al., 2022; Klaus and Maklan, 2012; Klaus and Maklan, 2013; Bustamante and Rubio, 2017). For retail management, however, the key question is where such measures become too coarse, especially when decisions depend on what consumers actually attend to, process, and feel during exposure.

This issue is particularly relevant because retail touchpoints routinely combine rational information with affective and heuristic cues. Dual-process accounts describe behaviour as shaped by an interaction between reflective and impulsive processes, while persuasion theory similarly distinguishes between effortful evaluation of arguments and cue-based processing (Strack and Deutsch, 2004; Petty and Cacioppo, 1986). In consumer contexts, affect and cognition may conflict, and situational conditions can alter which influence dominates behaviour (Shiv and Fedorikhin, 1999). For measurement, this means that self-reports remain useful, but they do not necessarily provide full access to the processes that shaped behaviour during exposure. Verbal reports may reflect post hoc rationalisations and limited introspective access to the actual mental mechanisms involved (Nisbett and Wilson, 1977), while reliance on one dominant method raises the risk of common method bias (Podsakoff et al., 2003). In retail settings, these limitations support a dual-layer approach that combines declarative evidence with process-sensitive measures.

Consumer neuroscience and psychophysiology provide such complementary tools, provided they are interpreted cautiously and in a decision-relevant way (Plassmann et al., 2015). Evidence suggests that neurophysiological methods can add incremental value beyond traditional pretest measures when forecasting advertising effectiveness (Venkatraman et al., 2015). Within the present framework, three classes of implicit indicators are especially relevant. First, eye-tracking captures what information is actually sampled during evaluation; attention is not adequately represented in many standard choice models and is therefore a useful diagnostic variable in its own right (Orquin and Mueller Loose, 2013). Packaging research further shows that

attention is strongly shaped by the visual ecology of packaging, including salience, size, and position, which helps explain why consumers may overlook information they later claim to value (Orquin et al., 2020). Second, electrodermal activity provides an index of sympathetic activation rather than valence and is therefore useful for detecting the intensity of arousal when interpreted carefully (Boucsein, 2012; Benedek and Kaernbach, 2010). Third, automated facial coding offers a nonverbal indicator of expressive response patterns; prior work shows that it can predict self-reported emotion as well as advertisement and brand effects in video commercial contexts (Höfling and Alpers, 2023), and that facial expressions can be linked to advertising effectiveness in amusing persuasive stimuli (Lewinski et al., 2014). Taken together, these measures support a principled triangulation in which attention indicates what is processed, EDA indicates activation, and facial coding indicates expressive reaction patterns.

Although each of these strands is well established, they are often applied separately rather than integrated into a decision-focused retail customer journey framework. Customer journey research provides the broad touchpoint perspective (Lemon and Verhoef, 2016), while customer experience research continues to expand survey-based operationalisations across heterogeneous contexts (Becker and Jaakkola, 2020; Gahler et al., 2023; Rahman et al., 2022). In parallel, consumer neuroscience and psychophysiology show that implicit methods can add predictive and diagnostic value beyond self-report in relevant marketing settings (Plassmann et al., 2015; Venkatraman et al., 2015). What remains underdeveloped in practice-oriented academic work is a clear mapping of where, across retail touchpoints, a dual-layer approach is most useful and which combinations of explicit and implicit measures are most decision-relevant for understanding emotional and rational drivers in customer journey decision-making.

3. Methods

This paper uses a secondary cross-study synthesis of four proprietary, previously unpublished studies conducted in retail-relevant contexts. The purpose was not to pool the datasets into one statistical model, but to identify recurring decision structures in cases where declarative evaluations and process-sensitive indicators could support different managerial conclusions. Following pattern matching and analytic generalisation, the analysis searched for transferable decision logic across studies that differed in stimulus type but shared a common practical problem: reconciling what consumers say with how they respond during exposure in retail decision-making (Eisenhardt, 1989; Yin, 2014).

Table 1: Overview of included source studies

Study	Retail Touchpoint	Data Basis	Sample Profile	Role in Synthesis
A	Online retail communication	Two video advertisements; trust/evaluation plus EDA/GSR and facial coding	Student neurolab sample, approximately 15–30 participants	Declared trust versus affective response during exposure
B	Retail advertising	Grocery retail advertisement; survey evaluation plus facial coding over time	Student neurolab sample, approximately 15–30 participants	Narrative dynamics and segment-level response differences
C	Packaging and shelf-level presentation	Wine labels; post-exposure evaluation plus eye-tracking	Student neurolab sample, approximately 15–30 participants	Early visual access to premium and differentiating cues
D	Product experience and innovation assessment	Product tasting; purchase choice, openness to alternatives, and facial coding	Large questionnaire dataset (N = 1,742), complemented by several neurolab samples ranging from 12 to 30 participants	Familiar choice versus positive response to novelty

The participant samples were not intended to be statistically representative of the general consumer population. Most studies used predominantly student neurolab samples to compare within-study divergences between declared evaluations and process-sensitive responses under controlled exposure conditions. Study D differed because its explicit dataset was substantially larger. The synthesis therefore supports analytic, not statistical, generalisation: it identifies decision-relevant patterns across retail touchpoints, but does not estimate their prevalence in the wider consumer population.

The source studies used the measurement infrastructure available in the Neurolab FMK UCM in Trnava, including eye-tracking, electrodermal activity/galvanic skin response, electroencephalography, and automated

facial coding through FaceReader. At the cross-study level, only harmonisable indicators were interpreted: questionnaire-based evaluations such as trust, stated preference, purchase intention, perceived quality or value, and openness to alternatives; and implicit indicators of visual attention, physiological arousal, and expressive affect. Eye-tracking captured information sampling through dwell time, time-to-first-fixation, fixation counts, and revisits (Orquin and Mueller Loose, 2013). EDA/GSR was interpreted as arousal rather than valence, with attention to activation frequency and intensity (Benedek and Kaernbach, 2010; Boucsein, 2012). Facial coding was treated as an indicator of expressive response patterns rather than direct access to inner emotional states (Lewinski et al., 2014; Höfling and Alpers, 2023). EEG formed part of the broader infrastructure, but was not used as a harmonised cross-case indicator because comparable outputs were not available across all studies. Implicit indicators were therefore triangulated with the explicit layer rather than interpreted as standalone evidence (Jick, 1979; Podsakoff et al., 2003; Plassmann et al., 2015).

Studies were included if they addressed a retail-relevant decision context, contained at least one explicit outcome, contained at least one implicit measure, and allowed a meaningful comparison between declarative and process-sensitive evidence in relation to a retail recommendation, redesign decision, or innovation-related action. Because the studies differed in stimuli, sample structure, and measurement configuration, raw data were not pooled. The analytical procedure consisted of three steps: summarising explicit and implicit outcomes within each study; identifying cases in which the two layers could plausibly support different retail actions; and conducting cross-study pattern matching aimed at analytic generalisation rather than pooled statistical estimation (Eisenhardt, 1989; Yin, 2014).

All included studies were conducted with informed consent, voluntary participation, and anonymisation of participants and brands or organisations within the institutional ethical framework of the University of Ss. Cyril and Methodius in Trnava. The present paper reports an anonymised secondary synthesis of proprietary neurolab datasets.

This approach has limitations. Heterogeneity in stimuli, samples, and measurement setup prevents pooled effect estimation and population-level causal claims. Harmonisation improves comparability across cases, but reduces study-specific detail. Finally, implicit measures remain interpretively bounded: EDA/GSR reflects arousal rather than valence, facial coding reflects expressive dynamics rather than direct inner states, and EEG was not used as a harmonised cross-study indicator.

4. Findings

This section reports the results as a decision-focused synthesis across retail touchpoints. Drawing on proprietary neurolab studies with student participants from the Neurolab FMK UCM in Trnava, it contrasts explicit measures (questionnaires and stated choices) with process-sensitive indicators recorded during exposure (eye-tracking, electrodermal activity, and automated facial coding) in order to identify recurring divergences relevant to retail customer journey, brand management, and the evaluation of retail changes across touchpoints.

4.1 Pattern A: a Trusted Brand can Elicit a Negative Affective Profile During Exposure

In an online retail communication context, students viewed two video advertisements and evaluated them via questionnaires, while EDA/GSR and facial coding were recorded in the Neurolab FMK UCM in Trnava. Explicitly, the less-known brand was rated as less trustworthy. Implicitly, however, the pattern reversed: the known brand showed a markedly negative expressive profile, while the less-known brand elicited more positive affect and higher physiological activation frequency. The less-known brand produced higher GSR activation frequency (mean 6.06 vs 2.56), dominant joy (64.3%), and low disgust (5.4%), whereas the known brand showed high disgust (35.1%), contempt (24.4%), and anger (22.9%). For retail decision-making, this suggests that declared trust and affective acceptance during exposure should be treated separately. A brand may remain trusted at the declarative level while the communication execution itself functions as an early warning signal for weaker touchpoint performance.

4.2 Pattern B: Segments can Process the Same Advertising Narrative Differently Even When Surveys Show Little Difference

A grocery retail advertisement (Retailer A) was evaluated in a student sample, with analysis focused on emotional trajectories over time and gender differences in implicit expressive dynamics. The trajectories suggested different narrative responses: for women, valence increased with story development, fell in quieter

segments, and neutralised towards the end; for men, the pattern showed an early uplift, a neutral plateau, later increases tied to action moments, and a drop around the product reveal, suggesting lower relevance or weaker involvement. The retail implication is that even when survey summaries look similar, the same narrative may work differently across segments. This matters for pacing, message placement, and the timing of product-related cues, especially when communication is being adjusted or re-used across audiences.

4.3 Pattern C: Premium Meaning Cannot Work if the Design is not Processed Early in Visual Scanning

In an eye-tracking task approximating shelf-like scanning, students viewed wine labels to assess how quickly they attracted attention and how strongly they were processed. Attention was strongly asymmetric. One label entered processing very quickly (time-to-first-fixation 354.2 ms), showed the highest sustained processing (dwell count 7.3), and captured the largest dwell time share (25.1%). Another entered substantially later (time-to-first-fixation 2800.1 ms) and received a lower dwell time share (19.9%). These results show that labels differ not only in post-exposure evaluation, but in whether they enter early visual sampling at all. In retail terms, premium signalling has an access condition: if the design is visually late, the premium cue may never be meaningfully processed in the comparison stage.

4.4 Pattern D: a Consumer can Choose the “Safe” Familiar Option Even When Novelty Produces a More Positive Experience Signal

In a tasting context, respondents evaluated multiple product variants through explicit measures of purchase choice and openness to alternatives, alongside implicit expressive responses during tasting. Explicitly, the classic familiar option remained the conservative purchase choice. At the same time, openness to alternatives was substantial: 67% said they would also buy another sample, and 60% most wanted to buy one of the non-classic flavours. Implicitly, a novel variant generated the strongest positive experience signal: joy and mean emotional valence were highest for sample 4, while the classic sample 2 showed the lowest joy and the highest surprise, interpreted as a recognition effect. Survey-only logic might suggest that novelty is unlikely to succeed. However, the dual-layer evidence points instead to the need for trial pathways, such as sampling, limited editions, or seasonal variants, rather than expecting a novel option to displace the familiar one in a single choice moment.

4.5 Synthesis: What These Patterns Mean for Retail Customer Journey Decisions

Across touchpoints, the synthesis shows that survey-only evidence can misdirect retail decisions when process-sensitive responses diverge from declared evaluations.

Table 2: Cross-study decision patterns

Pattern	Touchpoint	Survey-only Risk	Dual-layer Implication
A	Online retail communication	Trust may hide negative exposure response	Separate brand trust from execution performance
B	Retail advertising	Final ratings may hide narrative and segment dynamics	Test pacing and cue timing
C	Packaging/shelf presentation	Premium meaning may be assumed post hoc	Validate early visual access to cues
D	Product experience	Familiar choice may suppress novelty potential	Use trial pathways before rejecting innovation

Together, the patterns show that dual-layer measurement reduces the risk of optimising the wrong element at the wrong touchpoint.

5. Discussion

The main contribution of this paper is not to argue that consumers are simply “irrational”, but to show that different retail touchpoints create different managerial risks when they are evaluated through survey-based evidence alone. Customer journey research has consistently shown that customer experience emerges across sequences of interactions rather than at a single isolated moment, while more recent omnichannel work has stressed the need for comparable measurement across interaction contexts and journey stages (Lemon and Verhoef, 2016; Gahler et al., 2023; Rahman et al., 2022). From this perspective, the value of dual-layer

measurement lies not only in enriching interpretation, but in helping managers evaluate whether a given touchpoint is performing as intended within the journey and whether selected retail changes or innovations are being assessed on sufficiently complete evidence.

For advertising and online retail communication, the findings suggest that managers should distinguish between accumulated brand reassurance and touchpoint-level performance. Pattern A shows that a better-known brand can remain more trusted in declarative evaluation while simultaneously generating a weaker or more negative process profile during exposure. Pattern B similarly indicates that segment differences may emerge less in final questionnaire summaries and more in how a narrative is processed while the message unfolds. In retail terms, communication touchpoints should not be assessed only by stated liking, trust, or preference, but also by whether they sustain constructive processing and support progression to the next stage of the journey (Baxendale et al., 2015). This is especially relevant when managers evaluate whether an existing communication execution should be retained, adjusted, or adapted for different audiences.

For packaging and shelf-level presentation, the findings point to a different retail problem. Pattern C suggests that premium meaning cannot work if the relevant cue is not processed early enough to enter the consumer's comparison process. Packaging research shows that consumer attention is shaped by the visual ecology of the package, including salience, size, and positional characteristics (Orquin et al., 2020). In managerial terms, it is therefore not enough that respondents later say that a package looks premium; the premium cue must also become visually accessible under realistic competitive viewing conditions. In this sense, dual-layer evidence can improve the evaluation of packaging changes and packaging-related innovation by showing whether the intended cue is merely appreciated post hoc, or actually enters the decision process at the right moment.

For product experience and innovation-related evaluation, Pattern D suggests that immediate declared choice and positive experienced response should not be treated as identical indicators of retail success. A familiar option may remain the safer stated purchase choice, while a novel alternative may generate a more favourable experiential profile. From a customer journey perspective, this suggests that some innovations may be more suitable for low-risk trial, repertoire expansion, or staged adoption than for immediate substitution of the familiar option (Lemon and Verhoef, 2016). The managerial implication is not that novelty should automatically replace familiarity, but that dual-layer evidence can help distinguish between rejection, curiosity, and trial-readiness when evaluating product-related innovation.

In relation to the research questions, the paper offers three concise answers. For RQ1, survey-based evidence appears most vulnerable at touchpoints where in-process exposure matters for the managerial decision, especially communication, packaging, and product experience. For RQ2, the recurring structure is not simply a generic gap between what consumers say and what they "really feel", but a repeated divergence between declarative evaluation and process-sensitive indicators that would support different retail actions. For RQ3, the practical implication is that dual-layer measurement helps managers assign the right success criterion to the right touchpoint: trust-related indicators for reassurance problems, attention-related indicators for visibility problems, and combined process evidence for friction, acceptance, or trial-readiness problems. In this way, the approach supports not only customer journey analysis, but also the evaluation of retail changes and selected innovation-related decisions before broader implementation.

Overall, the value of the dual-layer approach lies less in psychological depth for its own sake and more in better retail judgement. It helps managers decide which touchpoint should be redesigned, what role that touchpoint is expected to fulfil in the journey, and which type of evidence is actually relevant for that managerial decision. Under this interpretation, the main weakness of survey-only measurement is not merely that it undercaptures emotion, but that it can direct optimisation towards the wrong retail lever, including in cases where firms assess communication changes, packaging redesign, or product-related innovation.

6. Conclusion

This paper has argued that the main weakness of survey-based retail decision-making is not that surveys are wrong, but that they are often incomplete at touchpoints where behaviour is shaped during exposure rather than only after it. Across advertising, online retail communication, packaging, and product experience, the secondary synthesis of proprietary studies from the Neurolab FMK UCM in Trnava revealed a recurring pattern: explicit evaluations and implicit responses may support different managerial conclusions. The contribution of the paper therefore lies in addressing a practical gap between customer journey research, customer experience measurement, and implicit consumer research. Rather than treating these streams separately, the paper proposes a dual-layer framework that links them to retail touchpoints and decision-making across the journey.

Its core message is simple: better retail decisions require not only asking consumers what they think, but also understanding what they attend to, react to, and carry forward across the journey. At the same time, this perspective can also support the evaluation of retail changes, redesign decisions, and selected innovation-related actions before broader implementation.

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Ethics Declaration

The studies drawn on in this paper were conducted with informed consent, voluntary participation, and anonymisation of participants and organisations. The research was carried out in accordance with the institutional ethical framework of the University of Ss. Cyril and Methodius in Trnava. The present paper reports an anonymised secondary synthesis of proprietary neurolab datasets.

AI Declaration

Artificial intelligence tools were used to support language editing, text refinement, and drafting assistance during the preparation of this manuscript. All arguments, interpretations, source selection, and final editorial decisions remained the responsibility of the author.

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