

Seeing Is Believing: Why Observable Cues Outperform Declarative Claims as Trust Signals at the Point of Sale

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Abstract

A brand asking a stranger to trust something unfamiliar faces a basic design choice: build that trust through what the customer can see for themselves, or through what the brand tells them. Signalling theory suggests these are not equivalent options. A claim costs little to make and is easy for a sceptical observer to discount; an observable, hard-to-fake state of the environment carries information a claim cannot manufacture. This paper tests the distinction inside a real retail servicescape that mixes both cue types side by side: ordinary signs of operational competence, such as a visibly clean counter and a preparation process the customer can watch, alongside purpose-built artefacts designed to communicate a specific brand claim. Consumer ratings of the environment were analysed through structural equation modelling and checked against three further measures collected outside that model, using entirely different methods, so that the conclusion does not rest on one instrument or one way of asking the question. The ordering is consistent across every measure used: cues a customer can verify directly earn more trust than cues the brand simply asks them to believe, even when both are prominently displayed and even when the claim is well understood. Comprehending a claim and being persuaded by it turn out to be separable outcomes, and this instance produces the first without reliably producing the second. The implication generalises beyond the specific claim examined here: a brand introducing something a customer has not encountered before should build the signal a stranger can verify for themselves before it invests in the one it has to ask them to take on faith.

Keywords: Signalling Theory; Trust Cues; Servicescape; Observability; Consumer Trust; Point Of Sale; Brand Communication; Retail Environment.

1. Introduction

Every retail encounter with something unfamiliar poses the same design problem to the seller. A customer who has not bought the product before, and who cannot taste, test or verify it before deciding to approach, has to form a trust judgement from what the environment shows them in the first few seconds of contact. The seller controls that environment, and has two broad kinds of material to put into it. One kind is a state of affairs the customer can check for themselves — a clean counter is clean or it is not, a process performed in view of the customer either happens or it does not. The other kind is a claim the seller makes about itself — a certification, a printed statistic, a tagline, an award. The customer cannot verify a claim by looking at it; they can only choose whether to believe it.

Classical signalling theory gives a clear prediction about which kind of material should carry more weight. Spence's (1973) foundational analysis of the job market established that a signal is only informative to the extent that it is costly, or otherwise difficult, for a low-quality sender to fake; a signal any sender can produce regardless of true quality carries no information and should be discounted by a rational receiver. Connelly, Certo, Ireland and Reutzel's (2011) review of three decades of signalling research in management confirms that observability and cost-of-mimicry remain the two properties that determine whether a given piece of information functions as a credible signal or as what is colloquially called cheap talk. Applied to a point-of-sale

encounter, the prediction is direct: an observable state of the environment is a costlier, harder-to-fake signal than a printed or spoken claim, and should be weighted accordingly by a customer forming a first trust judgement.

Retail and hospitality research has a well-developed account of the environment's role in customer evaluation, built around Bitner's (1992) servicescape framework and its three categories of ambient conditions, spatial layout and functionality, and signs, symbols and artefacts. The framework's third category already contains both kinds of material this paper distinguishes — a sign can describe an observable feature of the space or assert a claim about the brand — but the servicescape literature typically estimates the category's effect in aggregate, without separating the two. A positive coefficient for physical evidence, or for any of its sub-dimensions, is silent on whether the effect is being carried by what the space shows or by what it says.

The distinction should matter most exactly where a customer's trust is least settled: in an unfamiliar or unconventional category, where prior experience gives the customer little basis for evaluation and where visual cues can trigger risk perception before any deliberate reasoning occurs (Castagna, Pinto, Mattila, & de Barcellos, 2021). This paper tests the observable-versus-declarative distinction in exactly that setting, using ratings of a real servicescape that deliberately mixes both cue types in view of the same respondents, so that any difference in their effect cannot be attributed to one type having gone unseen.

The paper's contributions are three. It separates a servicescape construct by the signalling property of its constituent cues — observable and verifiable against declarative and unverifiable — rather than by topic, and asks which property predicts the construct's effect on customer trust and value. It tests the resulting ordering against three measures situated entirely outside the structural model, so the conclusion survives more than one way of asking the question. And it identifies a specific and actionable failure mode — a claim that is well understood by its audience but does not move their evaluation, and a signal whose evidentiary strength is not matched by its placement in the customer's path to a decision — that a study reporting only an aggregate coefficient could not have found.

2. Theoretical Background and Hypotheses

Signals, cheap talk and the cost of faking

Signalling theory distinguishes information a receiver can trust from information a receiver should discount, and the distinction rests on cost. In Spence's (1973) original formulation, a signal separates senders of different quality only if it is more costly, in some relevant currency, for a low-quality sender to produce than for a high-quality one. Where that condition fails, any sender can send the same signal regardless of true quality, the signal stops correlating with quality, and a rational receiver learns to ignore it — the situation economists call cheap talk.

Marketing has imported the logic directly. Kirmani and Rao (2000) distinguish default signals, which any firm can make regardless of underlying quality, from costly signals that only a firm confident in its own quality can afford to send, and show that consumers use exactly this distinction when inferring quality from marketing communication. Erdem and Swait (2004) extend the argument to brand credibility more generally, arguing that a brand's signals are informative to the extent that they are clear and consistent over time rather than merely asserted once. Both accounts

converge on the same operational marker used here: a claim that costs the sender little and that the receiver cannot independently check is a weak signal by construction, whatever its content; an observable state that the receiver can verify for themselves, and that would be costly or awkward to fake in the moment of observation, is a stronger one.

The servicescape as a mixed bundle of signal types

Bitner's (1992) servicescape framework treats the built retail environment as an active communicative instrument, and its third category — signs, symbols and artefacts — is where a firm's declarative claims about itself typically live. The effect of physical environment quality on customer evaluation is well established: Ryu, Lee and Kim (2012) link it to restaurant image and perceived value; Ali, Ting, Salim and Ahmad-Ur-Rehman (2021) link it to behavioural intention in full-service retail; Fuentes Mejía, Vílchez Mendoza and Rodríguez Villanueva (2026) confirm the relationship in a different market.

What this literature has not generally done is separate the servicescape's constituent cues by their signalling properties. A servicescape instrument in practice bundles two things that Spence's (1973) framework treats as categorically different: states the customer can observe and verify on the spot — cleanliness, an orderly layout, a process performed in view — and artefacts whose function is to assert something about the brand that the customer must take on trust — a certification mark, a printed statistic, a tagline, an award display. Estimating the servicescape construct as a whole and reporting a single coefficient is uninformative about which of these two signal types is doing the work, and the two imply very different investment: one is close to free and already present wherever operations are run well: the other is a designed and separately funded communication asset.

Simmonds and Spence's showing-versus-telling principle

A closely related finding from an adjacent domain anticipates the present prediction directly. Simmonds and Spence (2017) show that seeing a food product itself, on or through its packaging, changes consumer perception in ways that a printed description of the same product does not replicate — showing outperforms telling wherever a physical attribute is in question, because a description asks the consumer to trust an unverified claim while direct observation does not. The present paper extends the same logic from product attributes to trust attributes at the level of the retail environment as a whole: an observable feature of the space should outperform a declarative claim about the space for the same reason a photograph of a product outperforms a description of it.

Why the distinction should be sharpest under category uncertainty

The prediction should hold most strongly where the customer has the least prior basis for evaluation. An unfamiliar format, an unconventional ingredient, or a process the customer has not previously encountered raises a preliminary question — is this safe, is this competently made — that must be resolved before any other evaluation can proceed. Castagna et al. (2021) show that this kind of preliminary risk judgement can be triggered by visual cues before any deliberate reasoning occurs, which means the servicescape's observable cues are doing evaluative work at a stage where the customer has not yet engaged with, and may not yet trust, anything the brand has told

them. A declarative claim addressed to a customer who has not yet resolved that preliminary question is answering a question the customer has not yet reached.

Perceived value and behavioural response

The chain from environmental stimulus to evaluation to behaviour follows the stimulus–organism–response logic of Mehrabian and Russell (1974), applied to food retail by Arslan (2025) and, for a waste-adjacent category closely related to the one examined here, by Gao, Gao, Liu and Cheng (2026). Customer perceived value is operationalised through the multidimensional conception of Sweeney and Soutar (2001), covering functional, economic, emotional and epistemic benefit together with the judgement of price fairness (Thaler, 1985; Zeithaml, 1988). The behavioural outcome is purchase and destination-pull intention (Ajzen, 1991, 2006), the latter component included because the retail environment examined here is a fixed, low-interception location that a customer must choose to travel toward.

Hypotheses and research question

H1. The retail environment (physical evidence) has a positive influence on customer perceived value.

H2. Promotion has a positive influence on customer perceived value.

H3. Customer perceived value has a positive influence on purchase and destination-pull intention.

RQ. Within the retail environment construct, is the effect in H1 carried more strongly by observable competence cues or by declarative claim cues?

Because the research question concerns the internal composition of one construct, it is vulnerable to the objection that any decomposition reflects the instrument's own design rather than a real difference in the world. Two further propositions are therefore tested against measures that sit entirely outside the structural model.

P1 (memory). If declarative claim cues carried real weight with this audience, the claim's content should be well represented in what respondents recall about the brand without being prompted.

P2 (motivation). If declarative claim cues carried real weight, the substance of the claim should feature among the leading reasons respondents give for buying in this category.

3. Method

Research context

The setting is a fixed-location retail brand selling a food product in a category that is, for most of its market, unfamiliar: a beverage made from produce that would conventionally have been rejected before reaching a retail shelf. Two fixed kiosks operate in Greater Jakarta, each positioned inside a larger venue entered by visitors for a purpose other than buying the product on display, so footfall at each location is incidental rather than destination-driven. Both kiosks display, in view of every visitor, a set of ordinary operational cues — a visibly clean, enclosed preparation counter and a process that can be watched from the customer side — alongside a set of purpose-built declarative artefacts communicating a specific claim about the product's origin: a printed impact statistic, a brand tagline referencing the claim, an award installation, and packaging designed to be legible as carrying that claim.

Some operational and commercial details about the brand that are not material to the theoretical question tested here — internal performance targets, financial figures, and site-level commercial results — are omitted from this account; nothing in the analysis below depends on them, and the servicescape and the consumer sample are the same regardless of the commercial context in which the data were collected.

Design and stimulus exposure

The design is quantitative, cross-sectional and self-administered online. Because most of the target population had not visited either physical location, the instrument was built as a stimulus-based rating task rather than a recall task, following Ali et al. (2021) and Arslan (2025) and validated for servicescape measurement by He, Wu and Li (2023), who show that crowdsourced ratings of photographed servicescapes predict real behaviour.

Sixteen images were embedded, covering both kiosk exteriors, the preparation area from two vantage points, the menu board, the award installation, the packaging carrying the printed claim, and the brand's public communication material. Every respondent viewed both cue types under identical conditions and identical exposure, so a weak result for either type cannot be attributed to its having gone unseen.

Sample

Two questionnaire links open across a two-week fielding window returned 452 raw responses. Screening admitted respondents on activity in the relevant metropolitan market and recency of category use, not on having visited either kiosk. Standard data-quality screening — unit non-response, insufficient market activity, absence of category experience, straight-lining across all Likert items, and duplicate response vectors — removed 36 cases, and a pilot cohort of 30 was held out, leaving an analytical sample of $n = 386$, well above conventional minimum-sample guidance for a model of this size (Hair, Hult, Ringle, & Sarstedt, 2022). Careless responding was additionally screened using the response-pattern diagnostics recommended by Meade and Craig (2012) and Curran (2016).

The sample skews toward working adults of some discretionary spending capacity, and only a small minority name the focal brand among the brands they buy most often, so the sample is overwhelmingly one of prospective rather than existing customers — the population for whom a first trust judgement, rather than a repeat one, is actually being formed.

Measures and the four-measure triangulation design

All construct items use a seven-point Likert scale, chosen for its established psychometric performance (Preston & Colman, 2000; Miller, 1956; Weijters, Cabooter, & Schillewaert, 2010). The retail-environment construct is measured by twelve indicators adapted from Bitner (1992) and Ali et al. (2021) and deliberately spans both cue types under study: a set of indicators describing directly observable states of cleanliness, layout and visible process, and a set describing purpose-built artefacts whose content is a declarative claim about the brand. Promotion is measured by six indicators; customer perceived value by eight; purchase and destination-pull intention by four, drawn from the sources cited in Section 2.5.

Two further measures, collected outside the structural model, complete the triangulation design. An unprompted free-response task at the end of the instrument

asked each respondent to write three words that came to mind on hearing the brand name; responses were tokenised and counted with a fixed stop-list and no interpretive coding. A profiling question at the front of the instrument, preceding any image and never mentioning the brand, asked respondents to name their main reasons for buying in the category generally. Because the four measures rest on different logics — a scaled reaction to a displayed stimulus, a scaled reaction with the question held constant, unprompted recall, and a pre-exposure stated preference — and fail in different ways, convergence across all four is a stronger warrant than any single measure could provide on its own.

Analytical procedure

Estimation used PLS-SEM in SmartPLS 4, following Hair et al. (2022). Reliability, convergent validity and discriminant validity were assessed first, the last through the heterotrait–monotrait ratio with the inference test of Henseler, Ringle and Sarstedt (2015). Structural paths were then estimated by bootstrapping with 5,000 subsamples, no sign changes and percentile confidence intervals, with blindfolding for predictive relevance and effect sizes benchmarked against Cohen (1988). Common method bias was assessed with Harman's single-factor test and the full-collinearity approach of Kock (2015).

Within the retail-environment construct, each retained indicator was classified as observable or declarative on the basis of its content, using the criterion in Section 2.2: whether the state it describes can be verified by the respondent directly, or whether it asserts a claim the respondent must take on trust. The classification is conceptual rather than an estimated second-order structure, is reported in full so that a reader can evaluate it independently, and its limitation is addressed in Section 6.

4. Result and Discussion

Measurement model

All four constructs meet standard reliability and convergent validity criteria (Table 1). Discriminant validity holds on both the heterotrait–monotrait criterion and its bootstrap confidence interval. Common method bias is not a serious concern: Harman's single factor explains a minority of variance, and full-collinearity variance inflation factors remain within accepted limits.

Table 1. Construct reliability and convergent validity

Construct		k	α	ρ_A	CR	AVE	Mean	SD
Retail Environment (physical evidence)		12	0.911	0.910	0.925	0.508	5.540	0.976
Promotion		6	0.827	0.828	0.874	0.537	5.675	0.924
Customer Perceived Value		8	0.863	0.864	0.893	0.512	5.861	0.964
Purchase and Destination-Pull Intention		4	0.900	0.904	0.930	0.769	5.585	1.183

Note. Thresholds: α , ρ_A and CR ≥ 0.70 ; AVE ≥ 0.50 (Hair et al., 2022).

Structural model

All three hypotheses are supported (Table 2). The retail environment and promotion together explain a majority of the variance in perceived value, and perceived value in turn explains a substantial share of the variance in intention.

Table 2. Structural paths and hypothesis tests (5,000 bootstrap subsamples)

ID	Path	β	SE	t	p	95% CI	f ²	Result
H1	Retail Environment → Perceived Value	0.449	0.053	8.534	<0.001	[0.345, 0.553]	0.253	Supported
H2	Promotion → Perceived Value	0.393	0.056	7.046	<0.001	[0.280, 0.499]	0.195	Supported
H3	Perceived Value → Intention	0.648	0.049	13.192	<0.001	[0.547, 0.739]	0.725	Supported

Note. $R^2 = 0.607$ for perceived value and 0.420 for intention; both blindfolding Q^2 values exceed zero, indicating predictive relevance.

The aggregate result confirms that the retail environment matters. It does not, by itself, say why — the question the decomposition in Section 4.3 addresses.

Decomposition: observable versus declarative cues

Table 3 assigns each retained indicator to a signal type and reports its outer loading, the statistic that indicates how much of the underlying construct each indicator carries.

Table 3. Retail-environment indicators by signal type

ID	Indicator	Loading	Signal type
SRV4	Ordering and pick-up area orderly and clear	0.780	Observable
SRV2	Counter and staff working area look clean	0.778	Observable
SRV1	Environment looks very clean and hygienic	0.777	Observable
SRV3	Preparation area free of clutter	0.776	Observable
SRV5	Layout lets me order and pay without confusion	0.744	Observable
PSA5	Printed claim raises my trust in the product	0.713	Declarative
TSS6	Overall design congruent with the brand's stated values	0.711	Declarative
PSA4	Brand tagline convinces me the product is safe	0.705	Declarative
TSS4	Packaging design looks premium	0.665	Declarative
TSS1	Menu display legible as carrying the brand's claim	0.643	Declarative
PSA3	Enclosed clean counter signals hygienic preparation	0.630	Observable
PSA2	Staff visibly handling sealed ingredients	0.604	Observable

Note. All loadings significant at $p < 0.001$. Mean loading by type: observable cues 0.727 ($k = 7$), declarative cues 0.687 ($k = 5$). Indicators are ordered by loading.

The ordering is unambiguous at the top of the distribution. The five highest loadings in the entire construct are its five observable indicators, occupying the first five positions without interruption; no declarative cue reaches that band. The two lowest-loading indicators are both observable, and their content explains why: both describe a momentary action rather than a standing ambient state, and both were rated from a still photograph, a medium poorly suited to conveying an action in progress — a property of the measurement medium rather than evidence against the category.

The trust-cue comparison

A sharper comparison holds the underlying question constant — does this cue raise your trust in the product? — while varying only whether the cue is observable or declarative. A printed claim scores markedly lower than either of two observable cues asking the identical trust question, a gap of roughly half a scale point on a seven-point instrument, in the direction predicted by Section 2.3.

A related result qualifies the finding usefully. The item asking whether the claim itself is easy to understand scores among the highest means in the entire instrument — comprehension is not the problem, and respondents say so clearly. That item was nonetheless removed during measurement purification because it failed to discriminate between respondents, correlating weakly with everything else in the model. The claim is understood, endorsed as clear, and inert. Comprehension and persuasion are separable outcomes, and this case achieves the first without reliably achieving the second.

P1: evidence from unprompted memory

The free-response association task provides an independent check because it records what is already in memory rather than a reaction to a supplied stimulus. Words referencing the declarative claim's specific content account for a small minority of everything respondents wrote, well below the share occupied by ordinary sensory and functional associations, and no such word appears among the most frequent twenty words in the entire dataset. At the same time, not one respondent produced a negative association related to the category's unfamiliar origin — the claim is accepted, simply not what is top of mind. P1 is supported.

P2: evidence from stated motivation

The pre-exposure motivation item, collected before any image was shown and without naming the brand, is led by ordinary product benefits — health and sensory reasons dominate the response — with the specific content of the declarative claim named by a small minority of respondents, well behind the leading reasons. A separate item on what draws a respondent to try a new outlet names the retail environment itself, described in competence terms (attractive, clean, comfortable) rather than in the language of the declarative claim. P2 is supported.

Convergence across four measures

Table 4. Convergence of four independent measures on the same ordering

Measure	Logic	Result for observable cues	Result for declarative cues
Model-internal decomposition	Scaled reaction to a displayed stimulus	Five highest loadings in the construct	No loading reaches the top band; two lowest performers among top items
Trust-cue comparison	Scaled reaction, question held constant	Higher trust score, roughly half a point higher	Lower trust score despite high comprehension
Unprompted association	Free recall, unscaled, uncoded	Dominates recall (sensory and functional terms)	Small minority of recall, outside the top twenty words
Stated motivation	Pre-exposure, stated preference	Named as a leading driver of trying a new outlet	Named by a minority, behind product-benefit reasons

Four measures resting on different logics, two prompted and two not, two scaled and two not, order the same two cue types the same way in every instance.

Discussion

Observability as the mechanism, not the topic

The result is best read as a statement about signal properties rather than about the specific claim examined here. The retail environment construct is carried by cues the customer can verify for themselves, not by artefacts asking the customer to take a claim on trust — and this is exactly what Spence's (1973) cost-of-faking logic predicts once a servicescape's cues are separated by observability rather than analysed as an undifferentiated bundle. The specific claim studied here happens to concern the product's origin; the same mechanism should apply to a certification badge, a health claim, a provenance statement, or any other purpose-built declarative artefact placed in a retail environment, because the property that matters is not what the claim says but whether the customer can check it themselves.

Why convergence matters more than any single coefficient

The decomposition alone would be vulnerable to the objection that it reflects the instrument's own design. The strength of the finding lies in its replication across four measures that share no common method: an unprompted association task with no scale and no researcher coding; a pre-exposure motivation item that cannot have been shaped by the study's own stimulus material; and a controlled comparison that holds the question constant and varies only the cue type. A result that survives this degree of methodological diversity is difficult to attribute to a single instrument's artefacts.

The proof-timing problem

A specific finding has a general lesson attached. The declarative artefact that performs best in this study is handed to the customer only after they have already committed to the purchase, and the environment's other declarative cues are positioned inside the transaction zone, visible only after the decision to approach has

been made. The strongest available evidence, in other words, is delivered after the decision it is meant to influence. This is a sequencing problem rather than a content or budget problem, and correcting a cue's position in the customer's path to a decision typically costs far less than producing new content.

A general prescription: sequence, don't reduce

Where a customer must resolve a preliminary trust question before anything else about the offer becomes relevant, the practical implication is not to remove the declarative claim but to reorder it: lead with what a stranger can verify, and let the declarative claim serve as the explanation offered once trust is already established, rather than as the opening argument. Nothing about the claim's content needs to change for this reordering to improve its reception — only its place in the sequence a customer encounters.

Boundary conditions

The argument should be strongest where a category is unfamiliar enough to raise a genuine preliminary trust question, and weaker where a market has grown so accustomed to a given claim that its absence, rather than its presence, is what would be noticed. It should also weaken as the immediacy of the underlying benefit increases relative to the claim being made, and it is sensitive to the medium of evaluation: cues requiring interpretation may transmit differently through direct inspection than through a photograph, the medium used in the present design.

Limitations and Directions for Further Research

The design is cross-sectional, so causal ordering rests on theory rather than on observed time-order. The outcome measured is stated intention rather than observed purchase behaviour. The stimulus was photographic, so ratings cover the visual layer only. The classification of indicators into observable and declarative types is a conceptual reading of item content rather than an empirically estimated second-order structure; a design built specifically to test the distinction could model the two as separate latent constructs and estimate the difference in their coefficients formally. Four extensions follow directly: a two-construct specification permitting a formal statistical test of the difference; an experimental manipulation of cue order, holding content constant, to convert the correlational sequencing finding into a causal one; replication across other categories carrying different degrees of unfamiliarity, to establish how general the ordering is; and a longitudinal design testing whether repositioning a declarative claim later in the customer's path, without changing its content, measurably improves its reception.

5. Conclusion

A retail environment that mixes cues customers can verify with cues the brand asks them to believe is, in effect, running two signalling strategies at once, and the two are not equally effective. In this study, the effect of the retail environment on customer perceived value was carried by the ordinary, largely free cues of a well-run operation — visible cleanliness, an orderly layout, a process performed in view — and not by the artefacts purpose-built to communicate a specific brand claim, a pattern that held across four independent measures resting on different assumptions and vulnerable to different biases. The claim itself was well understood and not rejected; it was simply

outweighed, and delivered, in this instance, after the decision it was meant to shape. For any brand asking a customer to trust something unfamiliar, the general lesson is to build the signal a stranger can check for themselves first, and to let a declarative claim do the smaller job of explaining what the customer has already decided to trust.

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