DIGITAL MARKETING

The Personalisation Paradox: When Does Relevant Advertising Become an Intrusion on Consumer Autonomy?

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Abstract

Personalised digital advertising enables marketers to deliver messages that reflect consumers' interests, preferences and online behaviour. By increasing message relevance, personalisation can improve the usefulness of advertising and encourage engagement. However, the same practice may create discomfort when consumers perceive that advertisers know too much about them or have used personal information without meaningful awareness or consent. This tension is commonly described as the personalisation–privacy paradox.

This proposed study examines how the source and intensity of personalisation influence consumer trust, perceived intrusiveness, privacy concerns and purchase intention among Indian consumers. It proposes a quantitative, between-subjects experimental design using four advertising scenarios: explicitly personalised advertising based on information voluntarily provided by a consumer; inferred personalisation based on browsing behaviour; highly specific personalisation based on detailed behavioural information; and a non-personalised control advertisement. Participants will be randomly assigned to one scenario and will complete a structured questionnaire measuring their responses.

The study will test whether increased personalisation improves perceived relevance while also increasing perceived intrusiveness, and whether privacy concerns and trust help explain consumers' purchase intentions. The proposed research is grounded in the personalisation–privacy paradox, privacy calculus and advertising intrusiveness literature. It aims to contribute an India-focused experimental perspective and offer practical guidance for marketers seeking to balance relevance, transparency and consumer autonomy. As data collection has not yet been conducted, this proposal does not report empirical findings.

Keywords: personalised advertising; digital marketing; consumer privacy; perceived intrusiveness; consumer trust; purchase intention; data transparency

1 Introduction and research problem

Digital advertising has moved beyond broad audience-level messages towards increasingly individualised communication. Digital platforms and advertisers can use information such as search activity, browsing patterns, purchase history, stated preferences and engagement behaviour to select advertising content for particular users. This approach can make advertising more relevant by reducing the effort consumers need to identify products or services that match their interests.

Personalisation, however, creates a strategic tension. Consumers may appreciate advertisements that reflect their needs, yet react negatively when the source or extent of the information used feels unexpected, overly specific or difficult to control. Aguirre et al. (2015) describe this tension as the

personalisation paradox: personalisation can improve advertising effectiveness, but covert information collection can heighten feelings of vulnerability and reduce consumers' willingness to respond.

The problem is therefore not simply whether personalised advertising works. It is whether the manner in which personalisation is achieved changes how consumers interpret the advertisement and the advertiser. An advertisement based on preferences a consumer deliberately shared may be perceived differently from one that appears to infer private interests from browsing behaviour. A highly specific advertisement may be relevant, but it may also signal surveillance or a loss of control.

Although international research has examined personalisation, privacy and advertising responses, consumer reactions can vary with context, platform familiarity, digital literacy and expectations about data use. This study proposes to investigate these relationships among Indian consumers through a controlled comparison of different personalisation conditions. The central research problem is to identify the point at which increased advertising relevance may be outweighed by perceived intrusion and reduced consumer autonomy.

2 Research aim, objectives and questions

2.1 Research aim

To examine how the source and intensity of personalisation in digital advertising influence consumer trust, perceived intrusiveness, privacy concerns and purchase intention among Indian consumers.

2.2 Research objectives

1. To examine the influence of personalised digital advertising on consumers' perceived advertising relevance.
2. To investigate how the perceived source of advertiser knowledge affects privacy concerns and perceived intrusiveness.
3. To compare consumer responses to explicitly personalised, inferred-personalised, highly personalised and non-personalised advertisements.
4. To analyse the relationship between perceived intrusiveness, consumer trust and purchase intention.
5. To assess whether transparency about data use can reduce negative consumer responses to personalised advertising.
6. To develop practical recommendations for balancing advertising effectiveness with consumer autonomy and responsible data use.

2.3 Research questions

1. How does the source of personal information used in an advertisement influence consumers' perceptions of relevance and intrusiveness?
2. Do consumers respond differently to explicitly provided information and information inferred from online behaviour?
3. Does highly specific personalisation increase privacy concerns and reduce trust compared with moderate personalisation?
4. How are perceived intrusiveness and consumer trust associated with purchase intention?

5. Can transparency about data collection and use improve consumer acceptance of personalised advertising?

3 Literature review

3.1 Personalised digital advertising and perceived relevance

Personalised advertising is intended to align advertising messages with an individual's characteristics, preferences or behaviour. When the information used is relevant and expected, personalisation may make an advertisement more useful and increase the likelihood that consumers will engage with it. Recent work on receptivity to personalised digital advertisements treats receptivity as more than a single response, distinguishing consumers' inclination to connect with an advertisement from their intention to respond to it (Personalization payoff, 2025). This distinction is useful for the present study because perceived relevance, favourable attitude and purchase intention are related but not identical outcomes.

3.2 The personalisation-privacy paradox

The personalisation–privacy paradox refers to the coexistence of perceived benefits and perceived risks. Consumers may value convenience, relevance and time savings while also worrying about how their data are collected, combined and used. Aguirre et al. (2015) found that the way information is collected can shape responses to personalised advertising: overt collection may be received more favourably than covert collection, while trust-building signals can mitigate negative reactions. The implication is that the origin and perceived legitimacy of data may matter alongside the degree of personalisation.

3.3 Perceived intrusiveness and consumer autonomy

Perceived advertising intrusiveness arises when an advertisement is experienced as disruptive, excessive or as crossing an expected personal boundary. Van Doorn and Hoekstra (2013) found that using increasingly distinctive personal information in online advertising can raise perceived intrusiveness and weaken purchase intentions. In this study, consumer autonomy refers to the consumer's perceived ability to make independent choices and retain meaningful control over personal information and advertising exposure. The study will examine autonomy-related discomfort through measures of control, choice and perceived boundary violation rather than treating autonomy as an objectively observed behaviour.

3.4 Privacy concerns, trust and advertising response

Privacy concerns can influence whether consumers regard personalised advertising as an acceptable exchange. Trust may reduce uncertainty about the advertiser's intentions and data practices, whereas perceived surveillance or lack of control may generate resistance. A review of advertising and privacy research identifies privacy calculus, the privacy paradox and persuasion knowledge as important theoretical approaches for understanding advertising responses (Advertising and privacy, 2022). De Keyzer et al. (2024) further show that perceived relevance and perceived creepiness can operate as distinct pathways in consumer responses to personalised social-media advertising. This supports the need to measure both positive and negative reactions rather than assuming that relevance alone captures effectiveness.

3.5 Research gap

Existing research establishes that personalisation can produce both positive and negative consumer responses. However, there remains value in examining how Indian consumers distinguish between information they knowingly provide, information inferred from their online behaviour and highly specific behavioural information. The proposed study addresses this gap through a four-condition experimental design and a common measurement instrument. It will not assume that all Indian consumers respond uniformly; differences in age, digital familiarity and privacy orientation may be explored where sample size permits.

4 Theoretical and conceptual framework

4.1 Theoretical foundations

Privacy calculus provides a basis for understanding how consumers weigh the perceived benefits of personalisation against possible privacy costs. In the present study, perceived relevance and convenience represent potential benefits, while privacy concern and perceived intrusiveness represent potential costs. The framework does not assume that consumers perform a fully rational calculation; it uses the concept to organise the competing perceptions measured in the questionnaire.

The personalisation–privacy paradox provides the central explanation for why the same advertising technique may improve relevance while also producing discomfort. Advertising intrusiveness research further suggests that the distinctiveness and sensitivity of the information used can affect consumer reactions (van Doorn & Hoekstra, 2013).

4.2 Proposed conceptual framework

The proposed framework treats the advertising condition as the independent variable and consumer responses as dependent and explanatory variables.

Table 1. Variables, constructs and proposed relationships

Variable role	Constructs	Proposed relationship
Independent variable	Personalisation condition: explicit, inferred, high-specificity, generic	Different conditions are expected to produce different consumer perceptions.
Positive response	Perceived relevance	Greater relevance may support favourable advertising attitudes and purchase intention.
Negative response	Privacy concern; perceived intrusiveness	Higher concern and intrusiveness may reduce trust and purchase intention.
Explanatory variable	Consumer trust	Trust may help explain the relationship between the advertising condition and purchase intention.
Outcome variable	Purchase intention; advertising acceptance	The balance of relevance, privacy concern, intrusiveness and trust may shape response.
Potential moderator	Perceived transparency / control	Transparency and perceived control may weaken negative responses.

Conceptual sequence: personalisation condition to perceived relevance and perceived intrusiveness/privacy concern, to consumer trust, to purchase intention, moderated by perceived transparency and control.

5 Research hypotheses

1. H1: Perceived advertising relevance will differ significantly across the four personalisation conditions.
2. H2: The high-specificity personalisation condition will produce higher perceived intrusiveness than the explicit, inferred and non-personalised conditions.
3. H3: The high-specificity personalisation condition will produce higher privacy concern than the non-personalised control condition.
4. H4: Perceived intrusiveness will be negatively associated with consumer trust.
5. H5: Consumer trust will be positively associated with purchase intention.
6. H6: Privacy concern will be negatively associated with purchase intention.
7. H7: Greater perceived transparency and control will weaken the negative association between perceived intrusiveness and consumer trust.

6 Research methodology

6.1 Research design

The study will adopt a quantitative, explanatory research design using a between-subjects online experiment. Each participant will be exposed to one advertising scenario only. A between-subjects design is proposed to reduce direct comparison effects that may occur if participants see several versions of the same advertisement.

6.2 Target population and sampling

The target population will comprise adult consumers in India who use the internet and have encountered digital advertisements on platforms such as search engines, social-media applications or e-commerce websites. A non-probability convenience sampling approach is proposed, supplemented where feasible by voluntary sharing across different age and education groups. The final sample size should be determined before data collection through a power analysis based on the planned statistical test. If a formal power analysis cannot be completed, the proposal recommends aiming for approximately 200–240 usable responses, with broadly balanced allocation across the four conditions; this is a planning target, not a claim about a completed sample.

6.3 Experimental conditions

Table 2. Experimental conditions and their manipulations

Group	Advertising scenario	Manipulation
A: Explicit personalisation	The advertisement is tailored using preferences the consumer knowingly selected or shared with the brand.	Voluntarily provided information.
B: Inferred personalisation	The advertisement is tailored using interests inferred from browsing or content-engagement patterns.	Behavioural inference.
C: High-specificity personalisation	The advertisement refers to a detailed pattern of recent product searches or repeated activity that the consumer did not directly provide as a preference.	High specificity and stronger perceived data visibility.
D: Control	The consumer sees a general advertisement for the same product, with no individual tailoring.	No personalisation.

All four scenarios should use the same product category, brand description, visual format, offer and core message. Only the stated basis of personalisation should change. The scenarios should be pilot-tested to confirm that participants understand the intended differences and that the high-specificity condition is not unintentionally more persuasive because of stronger product benefits.

6.4 Data collection instrument

Data will be collected through a structured online questionnaire. The instrument will include screening questions, demographic questions, one randomly assigned advertising scenario, manipulation checks and multi-item measures of perceived relevance, intrusiveness, privacy concern, trust, transparency/control and purchase intention. Unless an established validated scale is adopted in full, the adapted items should be reviewed by an academic supervisor and pilot-tested before the main survey.

6.5 Proposed data analysis

- Descriptive statistics will summarise participant characteristics and construct responses.
- Reliability analysis, such as Cronbach's alpha or composite reliability where appropriate, will assess the internal consistency of multi-item scales.
- Manipulation checks will establish whether participants perceived the intended differences between the four conditions.
- One-way ANOVA or an appropriate non-parametric alternative will compare mean responses across experimental conditions.
- Correlation and multiple regression may examine relationships among intrusiveness, privacy concern, trust and purchase intention.
- Regression-based moderation analysis may be used to assess whether transparency/control changes the relationship between intrusiveness and trust, subject to adequate sample size and assumptions.
- Statistical significance, effect sizes and confidence intervals should be reported; findings should not be interpreted solely through p-values.

6.6 Ethical considerations

Participation will be voluntary and based on informed consent. The questionnaire should not request names, phone numbers, email addresses or other directly identifying information unless there is a clearly justified and approved need. Participants should be told the purpose of the study, the approximate time required, how responses will be used and that they may discontinue participation. The advertising scenarios will be fictional and will not imply that the researchers or a real advertiser have accessed a participant's personal browsing history. Data will be stored securely and used only for academic purposes, subject to the university's applicable research requirements.

7 Scope, limitations and delimitations

7.1 Scope

The study will focus on consumer perceptions of personalised digital advertising among adult internet users in India. It will examine four scenario-based conditions and selected consumer outcomes: relevance, intrusiveness, privacy concern, trust, transparency/control and purchase

intention. It will focus on advertising personalisation rather than the full range of data-protection, platform-governance or algorithmic-advertising issues.

7.2 Anticipated limitations

- Convenience sampling may limit the representativeness and generalisability of the results.
- Scenario-based responses may not fully reproduce the experience of encountering personalised advertisements in everyday digital environments.
- Self-reported purchase intention may not translate into actual purchasing behaviour.
- Participants may differ in digital literacy, platform use and prior experiences with targeted advertising.
- A single survey period may not capture changes in privacy expectations over time.

8 Expected contribution and managerial implications

The study is expected to clarify how consumers interpret different sources and intensities of advertising personalisation. Rather than treating personalisation as a uniformly beneficial marketing technique, it will examine the conditions under which relevance may coexist with discomfort. The research may help distinguish consumer acceptance of useful tailoring from acceptance of opaque or overly specific data use.

For digital marketers, the proposed framework may support more responsible audience targeting, clearer explanations of data use and greater consumer control. It may also encourage campaign evaluation to include privacy-related indicators, perceived intrusiveness and trust alongside conventional performance measures such as clicks, engagement and conversion. These are anticipated implications; final recommendations should be refined in light of the actual study results.

9 Proposed conclusion

Personalised advertising presents digital marketers with both an opportunity and a responsibility. Tailored messages can improve relevance and reduce information-search effort, but the use of personal data may also create privacy concerns and perceptions of intrusion. The proposed study will investigate this tension among Indian consumers through a controlled comparison of explicit, inferred, high-specificity and non-personalised advertising. By measuring relevance, privacy concern, perceived intrusiveness, trust and purchase intention, the research aims to identify how consumers evaluate the trade-off between useful personalisation and perceived loss of control. The study's conclusions will be drawn only after data collection and analysis; until then, the hypotheses and framework remain propositions for empirical testing.

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