

Role of AI in Modern Marketing Practices and Its Impact on Customer Satisfaction in Himachal Pradesh

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Abstract: *Marketing has changed more in the past decade than in the fifty years before it, and much of that change traces back to artificial intelligence. Recommendation engines decide what products a shopper sees first, chatbots answer routine queries at midnight, and pricing, advertising and customer segmentation increasingly run on algorithms rather than instinct. What remains far less clear, particularly outside India's large metropolitan markets, is whether customers on the receiving end of all this automation are actually more satisfied. The present study takes up that question in Himachal Pradesh, a predominantly hill and semi-urban state where digital adoption is growing quickly but unevenly. Drawing on 162 valid responses gathered from four districts (Shimla, Solan, Kangra and Mandi) through a structured questionnaire, the study profiles how businesses in the state use AI in their marketing, how aware customers are of these practices, and how strongly such use relates to customer satisfaction. Multiple regression found that AI business use, customer awareness and perceived benefits together explain roughly 80 per cent of the variation in customer satisfaction, and mediation testing showed that awareness translates into satisfaction partly through the trust it builds (Sobel $z = 7.68$, $p < .001$) and partly through its influence on purchase decisions (Sobel $z = 6.15$, $p < .001$). The paper closes with practical suggestions for firms and policymakers in emerging regional markets, along with the study's limitations as data collection continues toward a target of 500 respondents.*

Keywords: artificial intelligence, modern marketing, customer satisfaction, customer awareness, Himachal Pradesh, trust, purchase decision

1. Introduction

Anyone who has shopped online recently has interacted with artificial intelligence, whether they realised it or not. The products that appear at the top of a search page, the "you may also like" suggestions, the chatbot that pops up offering help, the advertisement that follows a user from one app to another: each of these is the output of an algorithm trained on customer data. Marketing scholars describe this shift as the movement from mass communication to individually personalised engagement (Huang & Rust, 2021; Davenport, Guha, Grewal, & Bressgott, 2020), and by most accounts it is the defining change in marketing practice of the current era.

Most of what we know about this change, however, comes from studies conducted in large cities or in Western markets. India's smaller states tell a different story. Himachal Pradesh is largely rural and semi-urban, its economy leans on tourism, horticulture, small trade and services, and internet penetration, while rising fast, arrived later than in the metros. Businesses in Shimla or Mandi do use AI-backed platforms, often without knowing it, simply by advertising on social media or selling through e-commerce marketplaces whose recommendation and targeting systems are AI-driven. Whether their customers notice this, welcome it, or find it intrusive is an empirical question that has hardly been examined at the state level. This paper begins to fill that gap.

The study pursues three linked aims. The first is descriptive: to document the extent to which businesses operating in Himachal Pradesh are perceived to use AI tools in their marketing, and whether that perception varies across customer groups. The second is relational: to measure how strongly AI use, customer awareness of it, and its perceived

benefits are associated with customer satisfaction. The third is mechanistic: to test whether awareness of AI marketing converts into satisfaction directly, or whether it travels through intermediate psychological steps, specifically the trust it builds and the influence it exerts on purchase decisions. Together these aims serve the broader doctoral project of which this paper is a part, namely an assessment of the role of AI in modern marketing and its impact on customer satisfaction in Himachal Pradesh.

2. Review of Literature

The academic conversation on AI in marketing has matured quickly. Early work focused on capability, cataloguing what the technology could do; recent work asks the harder question of how consumers respond. Jain and Kumar (2024), reviewing two decades of scholarship, conclude that AI now touches nearly every stage of the customer journey, from discovery through post-purchase service, yet note that adoption has been documented far more thoroughly than acceptance. Huang and Rust (2021) offer a widely cited framework distinguishing mechanical, thinking and feeling intelligence in marketing applications, and argue that the highest-value uses are those that get closest to genuine customer understanding. Davenport et al. (2020) reach a similar destination from a managerial angle, predicting that the firms which benefit most from AI will be those that use it to augment rather than replace the human elements of marketing.

On the customer side, the evidence is more textured. Puntoni, Reczek, Giesler and Botti (2021) show that consumers experience AI not as a neutral efficiency but as something that can feel helpful in one moment and intrusive the next,

Volume 15 Issue 7, July 2026

Fully Refereed | Open Access | Double Blind Peer Reviewed Journal

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depending on framing and control. Classical models help explain why. The technology acceptance tradition holds that perceived usefulness and ease of use drive adoption of any new technology (Davis, 1989), while trust theory adds that consumers must be willing to accept vulnerability when they cannot fully observe how a system works (Mayer, Davis, & Schoorman, 1995). The privacy calculus perspective (Dinev & Hart, 2006) completes the picture: customers weigh the benefits of personalisation against the risk of disclosing personal data, and their behaviour follows the balance of that trade-off rather than either side alone.

Empirical work has begun to test these ideas. Ameen, Tarhini, Reppel and Anand (2021) found that trust, alongside perceived convenience and personalisation, is central to how AI-enabled shopping experiences translate into customer outcomes. In the Indian banking context, Shaikh, Kumar, Mishra and Elahi (2024) reported that AI makes banking more accessible and enjoyable and lifts satisfaction, though customers still rated human service above purely digital interaction. From the advertising side, Hardcastle, Vorster and Brown (2025) add a note of caution: AI-driven personalised journeys often produce ambivalent rather than uniformly positive responses, depending on how much understanding and control customers feel they retain. At the same time, Alhitmi, Mardiah, Al-Sulaiti and Abbas (2024) caution that unresolved data-privacy concerns remain a standing threat to consumer confidence in AI marketing, and Kaplan and Haenlein (2019, 2020) argue that questions of interpretability and governance have become central management problems rather than side issues.

What is missing from this literature, and what motivates the present study, is evidence from India's smaller, non-metropolitan markets. Populations with substantial rural and semi-urban representation may differ from metropolitan samples in digital exposure, in baseline trust, and in how much they even notice AI at work. Findings from Delhi or Mumbai cannot simply be assumed to hold in Mandi. The present study therefore examines the full chain, from business AI use through customer awareness to satisfaction, within a single regional sample.

3. Research Methodology

The study employs a descriptive-analytical, cross-sectional survey design. Four districts of Himachal Pradesh were selected for data collection: Shimla, Solan, Kangra and Mandi. These are the state's most urbanised and digitally active districts, and consequently the places where customers are most likely to have encountered AI-driven marketing in some form. Respondents were drawn from consumers aged

eighteen and above who had been exposed to AI-influenced marketing, such as personalised advertisements, chatbots or recommendation systems, in the preceding six to twelve months. A multi-stage stratified sampling procedure guides the wider doctoral project: the state was first stratified by district and then, within districts, across business sectors including e-commerce, retail, banking, telecom and tourism. The minimum sample was fixed at 384 using Cochran's (1977) formula at a 95 per cent confidence level and rounded up to a target of 500 to absorb non-response, with district quotas allocated in proportion to 2011 Census population shares. Data collection is ongoing; the present paper analyses the 162 valid responses received so far, and the reader should bear that interim status in mind when interpreting the results.

The structured questionnaire contains a demographic section followed by five substantive sections, all scored on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree): perceived AI use in business marketing (15 items), customer awareness and perception of AI (15 items), AI's impact on customer satisfaction (15 items), benefits and challenges of AI in marketing (15 items), and strategies to improve the AI experience (14 items). Two short mediator scales were formed from embedded items: trust in AI marketing (two items) and AI's influence on purchase decisions (two items).

The instrument was piloted on the first thirty respondents before full deployment, following standard practice (Sekaran & Bougie, 2016). Analysis then proceeded in three steps. Descriptive statistics profile the sample and the constructs. Multiple regression estimates the joint contribution of AI use, awareness, benefits and strategies to customer satisfaction. Finally, mediation is examined through the Baron and Kenny (1986) causal-steps logic supplemented by Sobel tests.

4. Results and Discussion

4.1 Respondent Profile

Table 1 presents the demographic composition of the sample. Respondents span all working-age brackets, with 79 per cent between 26 and 55 years of age, and are comparatively well educated: just under three-quarters hold at least a graduate degree. Notably, 61.3 per cent of those who answered the screening question identify as sales and marketing professionals, which means a majority of the sample can speak to business AI use from the practitioner's side of the counter as well as the customer's. Collection to date is concentrated in Mandi district; the remaining districts will gain representation as fieldwork continues toward the 500-respondent target.

Table 1: Demographic Profile of Respondents (N = 162)

Variable	Leading categories	n	%
District	Mandi / Shimla / Kangra / Solan	123/ 18/ 8/ 8	75.9/ 11.1/ 4.9/ 4.9
Gender	Male / Female	131/ 29	80.9/ 17.9
Age group	26–35 / 36–45 / 46–55 / 18–25 / 55+	43/ 37/ 35/ 34/ 13	26.5/ 22.8 / 21.6/ 21.0/ 8.0
Education	Post-graduate / Graduate / Higher secondary / Doctorate	59/ 37/ 33/ 23	36.4/ 22.8/ 20.4/ 14.2
Occupation	Salaried / Self-employed / Student / Others	66/ 49/ 29/ 18	40.7/ 30.2/ 17.9/ 11.1
Monthly income (n = 154)	Above ₹60,000 / Up to ₹20,000	74/ 40	48.1/ 26.0
Residence	Rural / Urban / Semi-urban	65/ 58/ 33	40.1/ 35.8/ 20.4
Online purchase frequency	Frequently or very frequently	83	51.2

Sales/marketing professional (n = 150)	Yes / No	92 / 58	61.3 / 38.7
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A small number of multi-select responses on district, gender and residence are excluded from category percentages and flagged for recoding during final data cleaning.

4.2 Construct descriptives

Composite means for the principal constructs cluster just above the scale midpoint: AI business use at 3.18, awareness and perception at 3.23, customer satisfaction at 3.23, benefits and challenges at 3.24, and strategies at 3.34, with standard deviations between roughly 1.1 and 1.3. Two things stand out. Respondents are neither dismissive nor enthusiastic on average, and the wide spread means the sample contains real disagreement rather than polite midpoint-ticking. That variation is precisely what the inferential analyses below draw on.

4.3 What predicts customer satisfaction?

Customer satisfaction was regressed on the four exogenous composites: AI business use, awareness and perception, benefits and challenges, and strategies. The model is strong, explaining 80.4 per cent of the variance in satisfaction (adjusted $R^2 = .799$, $N = 154$, model $p < .0001$). Awareness and perception carries the largest standardised weight ($\beta = .500$, $p < .001$), followed by perceived benefits ($\beta = .447$, $p < .001$) and AI business use ($\beta = .177$, $p = .026$). The strategies composite took a small negative coefficient ($\beta = -.189$, $p = .043$), which should not be read at face value: the four predictors intercorrelate at $r = .78$ to $.88$ and variance inflation factors run from 4.7 to 6.5, so this sign reversal is almost certainly a multicollinearity artifact rather than evidence that better AI strategies reduce satisfaction. The honest conclusion at this stage is that the four constructs share a large common core, and that discriminant validity needs to be established through HTMT testing in a structural equation model once the full sample is in hand, before individual coefficients are treated as findings.

Table 2: Multiple Regression Predicting Customer Satisfaction ($N = 154$)

Predictor	β	p	Remark
Awareness & perception	0.5	< .001	Strongest predictor
Benefits & challenges	0.447	< .001	Significant
AI business use	0.177	0.026	Significant
Strategies	-0.189	0.043	Likely multicollinearity artifact

$R^2 = .804$, adjusted $R^2 = .799$. VIF range 4.7–6.5; inter-construct correlations $r = .78$ –.88. The negative Strategies coefficient is flagged, not interpreted.

4.4 How does awareness become satisfaction?

Two mediation models were tested. In the first, trust carries part of the effect of awareness on satisfaction: awareness predicts trust strongly ($a = .797$, $p < .001$), trust predicts satisfaction controlling for awareness ($b = .457$, $p < .001$), and the indirect effect of .364 is significant by the Sobel test ($z = 7.68$, $p < .001$), while the direct path remains significant ($c' = .510$, $p < .001$). In the second, purchase decision plays the same role: the indirect effect of .383 is likewise significant

(Sobel $z = 6.15$, $p < .001$) alongside a significant direct path ($c' = .491$, $p < .001$). Both models therefore show partial mediation. Awareness of AI marketing raises satisfaction partly because it builds trust and partly because it shapes purchase decisions, but it also retains an independent direct effect, perhaps reflecting the plain convenience value of recognising and using AI-driven features.

Table 3: Mediation of the Awareness → Satisfaction Relationship

Path	Via Trust (N = 159)	Via Purchase Decision (N = 160)
c — total effect	0.875 ($p < .001$)	0.874 ($p < .001$)
a — awareness → mediator	0.797 ($p < .001$)	0.866 ($p < .001$)
b — mediator → satisfaction	0.457 ($p < .001$)	0.442 ($p < .001$)
c' — direct effect	0.510 ($p < .001$)	0.491 ($p < .001$)
Indirect effect (a × b)	0.364	0.383
Sobel z	7.68 ($p < .001$)	6.15 ($p < .001$)
Verdict	Partial mediation	Partial mediation

Taken together, the results sketch a coherent picture of AI marketing in a regional Indian market. Businesses in Himachal Pradesh are perceived to use AI at moderate levels; customers notice; and where awareness, perceived benefits and business use are higher, satisfaction is markedly higher too. The mediation results align with wider evidence on the centrality of trust in AI-mediated customer experience (Ameen et al., 2021; Shaikh et al., 2024) while adding a regional nuance: mediation here is partial, not full, so awareness retains value of its own in a population whose digital exposure is more uneven than a metro sample's.

5. Findings and Recommendations

Two findings deserve emphasis. First, customer satisfaction with AI-driven marketing is explained to a remarkable degree by how aware customers are of AI, how beneficial they judge it, and how extensively businesses are seen to use it. Second, the awareness effect does not travel to satisfaction in one piece: part of it is carried by the trust customers place in AI-driven marketing and part by the influence AI exerts on their purchase decisions, while a direct effect remains alongside both.

For businesses in Himachal Pradesh and similar regional markets, the practical message is that visibility pays. Since awareness is the strongest single correlate of satisfaction, firms should not hide their use of AI behind the scenes; explaining what the technology does, in plain language at the point of use, is likely to raise satisfaction both directly and through the trust it builds. And because perceived benefits weigh nearly as heavily as awareness, firms should design AI features around visible customer value, faster answers, more relevant suggestions, easier comparisons, rather than around internal cost savings alone.

For policymakers and industry bodies, the results suggest that programmes which raise general AI literacy may do double duty, improving both consumer welfare and the commercial returns to legitimate AI adoption. Support for small regional businesses in adopting transparent AI practices would address both sides of the relationship documented here.

The limitations are the familiar ones of an interim, single-source survey. The sample of 162 is well short of the 500 target and currently over-represents one district, so coefficients should be read as directional. All variables come from the same respondents at the same time, which invites common-method variance, and the very high inter-construct correlations counsel caution about unique effects until discriminant validity is formally established. The cross-sectional design rules out causal claims. The next stage of the project will complete data collection under corrected district quotas and re-estimate the model in Smart PLS with bootstrapped confidence intervals and HTMT discriminant-validity checks.

6. Conclusion

AI has moved into the marketing mainstream of even India's smaller states, and customers in Himachal Pradesh are not passive bystanders to that shift. They notice it, and their satisfaction moves with their awareness, their trust, and the benefits they perceive. For the growing number of regional businesses adopting AI tools, the lesson of this study is straightforward: the technology delivers satisfaction not when it is merely deployed, but when customers understand it, trust it, and can see what it does for them.

Acknowledgments

The author gratefully acknowledges the guidance of the research supervisor, Dr. Jyoti Sondhi, Faculty of Engineering and Management, Abhilashi University, Himachal Pradesh, and thanks the survey respondents across Shimla, Solan, Kangra and Mandi districts for their participation.

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