

The Scoping Representation of Anchoring Effects and Behavioral Pricing in Digital and Consumer Markets

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Abstract—Anchoring effects and related behavioral pricing mechanisms play a central role in shaping consumer decision-making across digital platforms, negotiations, insurance, hospitality, financial markets, and sustainable consumption contexts. This scoping review synthesizes recent empirical, experimental, conceptual, and analytical studies published between 2024 and 2026 to map current evidence on anchoring, reference pricing, decoy effects, and allied behavioral biases. Following a scoping review methodology, thirteen studies were examined spanning artificial intelligence negotiations, prediction markets, consumer pricing strategies, supply chains, freemium platforms, insurance markets, and hospitality settings. Results reveal consistent anchoring and reference dependence effects on prices, surplus allocation, demand, and perceived value, alongside emerging evidence of anchoring in AI-mediated negotiations and digitally amplified consumer biases. However, the literature remains fragmented, with heavy reliance on theoretical modeling and limited large-scale human behavioral validation. This review identifies key thematic domains, methodological gaps, and practical implications, and proposes directions for future research and policy.

Index Terms—Anchoring effect; behavioral economics; reference pricing; decoy pricing; digital markets; consumer decision-making

I. INTRODUCTION

Behavioral economics has demonstrated that individuals frequently rely on cognitive heuristics rather than fully rational optimization. Among these, the anchoring effect where initial reference points disproportionately influence judgments has been

shown to affect pricing perceptions, negotiations, and purchasing decisions. With the rise of digital platforms, algorithmic pricing, and AI-mediated interactions, anchoring mechanisms now operate not only in human decision-making but also in automated systems.

Recent studies extend anchoring research into diverse domains, including sustainable products, hospitality bundles, insurance design, IPO markets, two-sided platforms, and AI negotiations. Despite this growth, evidence remains dispersed across disciplines, methods, and application contexts. A scoping review is therefore warranted to systematically map this emerging literature, identify dominant themes, summarize empirical patterns, and highlight research gaps.

The objectives of this scoping review are to:

1. Map current research on anchoring and behavioral pricing across digital and consumer markets.
2. Compare methodological approaches and outcome variables.
3. Synthesize key findings and theoretical contributions.
4. Identify limitations and gaps.
5. Propose recommendations and implications for researchers, practitioners, and policymakers.

II. METHOD: SCOPING REVIEW APPROACH

2.1 Review Design

A scoping review approach was adopted to capture the breadth of recent work on anchoring effects and

behavioral pricing. Unlike systematic reviews focused on effect-size aggregation, this approach emphasizes mapping concepts, methods, and evidence landscapes.

2.2 Data Sources and Selection

The review draws on thirteen studies (2024–2026) extracted from the provided literature matrix. Included works comprised:

- Experimental studies (human and AI-to-AI negotiations).
- Mixed-method consumer surveys and field experiments.
- Conceptual and narrative reviews.
- Analytical and game-theoretic modeling papers.

No additional external databases were queried; all included studies originate from the supplied document.

2.3 Data Extraction and Synthesis

For each study, objectives, research design, data methods, variables, samples, results, and limitations were extracted. A narrative synthesis was conducted, organizing findings into thematic domains:

- (a) Anchoring in pricing and consumer choice,
- (b) Digital amplification of behavioral biases,
- (c) Anchoring in AI and algorithmic systems, and
- (d) Supply-chain and platform pricing.

III. RESULTS

3.1 Anchoring in Consumer Pricing and Choice

Multiple empirical studies demonstrate robust anchoring effects in consumer contexts. Psychological pricing strategies such as anchor pricing (“Was ₹1500, Now ₹999”), charm pricing, and bundled offers significantly increase perceived affordability, value, and purchase intention, particularly in sustainable cosmetic products. Similarly, hospitality experiments show that decoy pricing increases selection of higher-priced bundles in both restaurant menus and hotel booking scenarios.

Insurance-focused conceptual work highlights how anchoring via initial premiums and deductible framing shapes perceived value and risk, often leading to over insurance for rare events and underinvestment in long-term protection.

Collectively, these findings confirm anchoring as a powerful driver of perceived savings, product

comparison, and final choice across physical and digital consumption environments.

3.2 Digital Amplification of Behavioral Biases

Two conceptual reviews converge on the conclusion that digital environments intensify behavioral biases. Features such as defaults, personalized recommendations, frictionless payments, and continuous information exposure strengthen reference dependence, loss aversion, and mental accounting. Consumers increasingly satisfy rather than optimize, relying on platform-presented anchors such as “recommended” prices or curated bundles.

Evidence from financial markets further supports digital amplification: finfluencer endorsements significantly increase IPO underpricing and initial returns, driven by attention-based anchoring and retail herding effects.

3.3 Anchoring in AI and Algorithmic Systems

Recent work extends anchoring beyond human cognition into artificial agents. Large-scale AI-to-AI negotiation experiments reveal strong turn-order anchoring: buyer-first systems systematically extract surplus advantages, while supplier-first conditions largely eliminate this bias. These results demonstrate that anchoring can emerge structurally in automated bargaining environments, independent of human psychology.

Complementing this, prediction markets have been proposed as “calibration teachers” for advertising systems, using market prices as probabilistic anchors to improve model calibration under sparse labels. High-liquidity markets provide sharper reference points, though susceptibility to manipulation remains a concern.

Notably, experimental psychology research challenges traditional “insufficient adjustment” models of anchoring, finding no evidence for unidirectional adjustment over time, suggesting a need for theoretical revision.

3.4 Supply Chains, Platforms, and Reference Pricing

Several analytical studies examine anchoring and reference effects in supply chains and platforms. Two-stage pricing models show that consumer reference prices significantly influence demand trajectories, while coordination contracts can mitigate inefficiencies. Freemium platform models

demonstrate that consumer “stickiness” alters optimal pricing thresholds for value-added services.

In two-sided marine freight platforms, commission rates, greenness levels, and network externalities jointly determine equilibrium outcomes, with pricing anchors embedded in membership fees and freight rates. Health insurance modeling further indicates that standardized commissions improve price transparency and consumer satisfaction, indirectly counteracting misleading anchors.

IV. DISCUSSION

This scoping review reveals four key patterns:

1. Consistency of anchoring effects: Across hospitality, cosmetics, insurance, finance, and negotiations, anchors reliably influence perceived value, demand, and surplus allocation.
2. Digital reinforcement: Platforms magnify anchoring through interface design, defaults, and social signals.
3. Algorithmic anchoring: AI systems exhibit structural anchoring effects (e.g., turn order), raising governance concerns.
4. Methodological imbalance: A substantial portion of the literature relies on theoretical modeling or conceptual synthesis, with comparatively fewer large-scale human behavioral experiments.

Despite strong convergent evidence, limitations are notable. Many empirical studies employ scenario-based experiments or self-reported surveys, reducing ecological validity. Several domains where platform pricing, insurance commissions, marine freight remain almost entirely theoretical. Human samples are often modest or demographically skewed, and cross-cultural validation is rare.

V. RECOMMENDATIONS AND IMPLICATIONS

5.1 Implications for Research

- Future studies should prioritize field experiments and real transaction data to validate theoretical models.
- Cross-cultural and longitudinal designs are needed to assess persistence and generalizability of anchoring effects.
- AI-focused research should expand beyond bilateral negotiations to multi-agent and human–AI hybrid settings.

- Greater integration between behavioral experiments and platform economics models would strengthen causal inference.

5.2 Implications for Practice

- Firms should apply anchoring ethically, avoiding deceptive reference prices while leveraging transparent bundles and value framing.
- Digital platforms should audit recommendation systems for unintended anchoring biases, particularly in financial and insurance products.
- Hospitality and retail managers can strategically deploy decoys and bundles, but must balance short-term revenue gains against long-term trust.

5.3 Policy Implications

- Regulators should strengthen guidelines on reference pricing, discount framing, and influencer disclosures.
- Algorithmic transparency standards are needed where AI-mediated negotiations or pricing systems systematically advantage one party.
- Insurance and financial markets may benefit from standardized commission structures to reduce distorted anchors and improve consumer welfare.

VI. CONCLUSION

Anchoring remains a foundational mechanism shaping decisions across modern digital and consumer markets. This scoping review demonstrates its pervasive influence in pricing, negotiations, platform economics, and AI systems. While evidence strongly supports anchoring’s practical significance, the field is constrained by fragmented methodologies and limited real-world validation. Advancing this domain requires closer alignment between behavioral experiments, platform data, and theoretical modeling. Addressing these gaps will be essential for designing fairer digital markets, more transparent pricing systems, and responsible AI-mediated decision environments.

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